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AGRICULTURAL
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A CHANGING
WORLD



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Europe's transformation in the face of change

There is a common thread to much of this issue: Europe's transformation in the face of perilous change – climate change, of course, but also geopolitical change in the most primal sense, challenging Europeans' capacity to provide for their most basic needs.

Agriculture – the first common policy now sixty years old – encapsulates all of this. A policy originally devised by a generation that had known hunger is now pivotal to combating every one of the Biblical scourges facing the Union: hunger, drought, floods and war.

Today, Europeans have a renewed consciousness that satisfying the most basic of human needs is not a given in a hostile world and that food sovereignty is not negotiable. Of course, the EU is already an agricultural superpower, exporting even more massively than it imports and shaping farming worldwide. “EU laws determine how timber is harvested in Indonesia, how honey is produced in Brazil, what pesticides cocoa farmers use in Cameroon, what equipment is installed in dairy factories in China...¹”. That kind of soft power looked good in gentler times, less so as war rages in Europe's bread basket. The EU is striving for secure borders and ecological and technological excellence, and agriculture is part of that:

- ▶ Ukraine's accession to the EU will not only ensure freedom, security and prosperity for all citizens of the Union, old and new, it will be a giant leap for European food sovereignty.
- ▶ The greening of agriculture is one of the most crucial challenges of climate change. There will be no net zero without an EU-led agronomical revolution.
- ▶ Technology is crucial to the quality, yields and greening of European agriculture. It, too, is a question of sovereignty.

As agriculture returns to centre stage, so does its valuation. EVS 2025 will contain Guidance on agricultural valuation for the first time in twenty years and it will be more comprehensive, more sensitive to diversity of markets and valuation practice, greener and more high-tech than ever before.

A first complete draft of the Guidance will be presented at the TEGOVA-ASAVAL-CAAV agricultural valuation conference in Lisbon on 22 March. It is open to all, participants will be able to discuss and debate the draft with all the main authors while it is still modifiable, and an array of experts from across Europe will cover all the key valuation challenges for a sector that, perhaps more than any other, exemplifies a Europe “United in diversity”.

“EU laws determine how timber is harvested in Indonesia, how honey is produced in Brazil, what pesticides cocoa farmers use in Cameroon, what equipment is installed in dairy factories in China...”

There is another transformation underway with immense impact on Europe's rural environment: the plethoric construction megaprojects serving to transfer electricity from renewable energy to points of use. In the first of a series, this issue's article describes the reshaping of owners' rights, of the public interest and of compensation that these projects entail and explores the valuation challenges and opportunities that ensue.

Michael MacBrien, Editor

¹ Anu Bradford, “The Brussels Effect – How the European Union Rules the World, p. xiv, par. 2, Oxford University Press 2020”



LISBON AGRICULTURAL VALUATION CONFERENCE 22 MARCH 2024

Agricultural valuation in a changing world



Registration and programme

REAL ESTATE VALUATION



#01

Functional obsolescence of real estate



Igor Pšunder



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Summary

Functional obsolescence in real estate means that something on or in the building is obsolete, even though it may still be working perfectly well. In real estate, it is also called technical, technological or internal obsolescence. Real estate valuers distinguish two forms of functional obsolescence: excessive capital cost and excessive operating cost. Functional obsolescence is divided into curable and incurable, which affects its consideration in the value of the property. It can be influenced by several factors, the most important of which are: inadequacy, impracticality and energy inefficiency.

Functional obsolescence is especially important when the real estate is valued under the cost approach. In this case, the valuer must compare the replacement or reproduction costs of the property under the scenario “with functional deficiency” with the value “without functional deficiency”. Functional obsolescence in this case represents the difference in value under both scenarios. When determining the value on the basis of the comparative or income method, it is crucial that the valuer recognise the functional obsolescence of the valued property, which is expressed as a difference in the costs or revenues of the valued property compared to the costs and revenues of comparable properties, and take this into account when determining the value.

Key words

*functional obsolescence,
capital cost,
operating cost,
replacement value,
reproduction value,
comparable transactions*

1. Introduction

Functional obsolescence usually refers to loss of utility due to inefficiencies in the subject real estate, deriving from obsolete design or outdated technology. Some sources (e.g. Investopedia, 2022) define functional obsolescence as reduction of an object's usefulness or desirability because of an outdated design feature that cannot be easily changed or updated.

In real estate, functional obsolescence means that something on or in a building is obsolete, even though it may still be functioning properly. In the case of real estate, this is also known as technical, technological¹ or internal obsolescence. It is the last term – internal obsolescence – that most emphasises that the obsolescence in question originates from the interior, i.e. from the design of the property itself. This may result from the use

of obsolete materials, inappropriate or outdated architectural solutions or from general technical characteristics that are not – or are no longer – equivalent to those ascertained at the time of the valuation.

It should be noted that functional obsolescence is not necessarily universal but may be specific to a local market. Functional obsolescence may be addressed differently in different markets as a result of the differing written and unwritten requirements stemming from each environment. For example, different climates require different energy solutions, just as different social environments require different architectural solutions.

With respect to the functional characteristics of real estate, we often encounter the concept of misplaced improvement, i.e. an improvement that does not result in highest and best use. This may be *underimprovement* or *overimprovement*. This is usually evidenced by analysis of the highest and best use, the results of which indicate whether it results in the property's economic or functional obsolescence.

Functional obsolescence may or may not be curable, depending on the cost of curing compared to the associated increase in the value of the property. It is not necessarily caused by something that is inferior to written standards or users' natural expectations. As a special case, Vrenčur and Pšunder (2012) highlight functional ob-

solescence resulting from excess, i.e. from the excessive use of super-standard elements that do not correspond to market expectations (sometimes referred to as *superadequacy*). In such cases, we may assess functional obsolescence as a consequence of the costs of excessive, oversized or super-standard elements.

In some cases, these excessive improvements may reduce, or at least not increase, a property's potential resale value, as the average market participant is not willing to pay for excessive improvements; they may even conflict with the expected functionality of this type of real estate. Excessive improvements can also lead to above-average operating costs.

Functional obsolescence affects the (market) value of a property and thus the valuation of a property must take into account the factors that affect its functional obsolescence. These factors include outdated design features, failure to comply with current technical and technological standards (e.g. changing standards or technologies require changes in the design of industrial premises) or simply an architectural design that does not meet current written or unwritten user expectations.

¹ Older sources addressed technological obsolescence separately, while more contemporary sources include it in functional obsolescence.

“Functional obsolescence is not simply a matter of perception but can certainly be considered in cases where a property’s design does not generate sufficient profit or incurs excessive cost.”

2. Factors affecting the functional obsolescence of real estate

Generally, there are two forms of functional obsolescence, which show as:

- a. excess capital cost or,
- b. excess operating cost of subject real estate.

Both forms are caused by obsolete design, materials or technology used in subject real estate.

Functional obsolescence is therefore not simply a matter of perception but can certainly be considered in cases where a property’s design does not generate sufficient profit or incurs excessive cost.

Functional obsolescence is most often associated with the cost approach, though it is not unique to it. Functional characteristics can also have a significant impact on adjustments in market approach; in the income approach they are usually reflected in lower potential rents.

Functional obsolescence can be influenced by a range of factors, including:

- a. **Inadequacy.** A property is considered functionally obsolete even if it is physically in very good condition but is not built to current market standards. As noted in the introduction, these standards may be written (e.g. minimum dimensions of parking spaces) or unwritten (e.g. air-conditioning in an area where such systems are common).

- b. **Impracticality.** A building may be considered functionally obsolete if it has an impractical layout or other non-standard features. A house with insufficient living space or oversized corridors and ancillary spaces may be considered functionally obsolete if these areas – characterised by limited usability – far exceed the standard applicable to similar structures in the same neighbourhood. Even oversized parking spaces in a parking garage for which a proportionally higher rent cannot be collected may be considered functionally obsolete.

“The difference in the building’s energy performance must be assessed and taken into account in the valuation.”

- c. **Energy inefficiency.** Older buildings that have not undergone energy renovation can have disproportionately high heating, ventilation, air conditioning and other energy consumption costs (e.g. lighting) compared to modern buildings. The difference in the building’s energy performance must be assessed and taken into account in the valuation. If an investor wants to properly reha-

ilitate the energy performance of a building to the level of comparable modern buildings, this will require additional investment. If the building remains unrenovated, the operating costs will be disproportionately high, which may be reflected in lower rents.

3. Types Of Functional Obsolescence

Functional obsolescence may be curable or incurable, which also influences its consideration in property valuations. In general terms:

- a. **Curable functional obsolescence** can be eliminated with rational inputs. In these cases, the disruption affecting the operation, functionality or design of the building can be corrected. The valuer

must assess whether the cost of the building’s renovation can be justified by a higher potential resale value of the building or a higher profit.

- b. **Incurable functional obsolescence** occurs when the remediation of functional obsolescence is not rationally justified or not possible (e.g. changing the size of rooms in a care home).

In general, therefore, in assessing the potential curability of obsolescence, the principle of maximising property value should be followed; in other words, the remediation of obsolescence (of any type) may be justified when such remediation will cost less than the resulting increase in the value of the property (Vrenčur, Pšunder, 2012).

4. Functional obsolescence in the cost approach

Replacement costs are based on the hypothetical construction of a modern equivalent asset; as such, many aspects of the identified functional obsolescence of the existing building cannot be taken into account in the modern equivalent. This concern is not relevant when calculating reproduction costs.

Where functional obsolescence can be remedied by additional investment, the value of the functional obsolescence is equal to the cost of remediation of the functional deficiency. This is an investment that owners of comparable but functionally non-obsolete buildings do not have to make.

Where the functional obsolescence of a property results from excessive improvements, its value may be estimated based on the value of the additional investment that would be required to remedy the functional unsuitability of the property. If the excessive improvements cause disproportionate additional operating costs and cannot be eliminated with reasonable inputs, the value of such obsolescence may be estimated based on the present value of the excess operating costs of such property. If the oversized or super-standard elements do not incur other costs, it is sufficient to reduce their value to that of 'standard' elements.

If a functionally obsolete property can be rented, the value of its functional obsolescence may be calculated by the present value of the 'lost' rent resulting from the property's functional inadequacy.

It is also worth considering the impact of functional obsolescence on a property's useful economic life. Useful economic life is the length of time an asset is expected to be able to generate a financial return or provide a non-financial benefit in its current use. This will be influenced by the degree of functional or economic obsolescence to which the asset is subject.

5. Taking functional obsolescence into account in the comparative method

The market price of properties that are functionally obsolete is generally lower than that of comparable properties not affected by such obsolescence. In a valuation based on sales comparison, it is therefore key that the valuer first identify the functional obsolescence of the property being valued and take this into account in the valuation. For example: where the property being valued is uninsulated and therefore requires more energy than otherwise comparable properties that have been sold and for which the valuer has available transaction prices, the valuer must adjust the comparable sales. If the set of comparable transactions includes properties with a similar functional obsolescence to that of the property subject to valuation, the valuer may select only properties that are functionally comparable to the property subject to valuation from the set of comparable transactions. Of course, all necessary conditions (number of transactions, range of values, etc.) required for this type of valuation must also be met.

Certain differences in the functionality of properties may be difficult to identify and thus may not be factored into market pricing. Such differences cannot, therefore, be taken into account in property valuations. On the other hand, there are obvious differences in functionality, which are expressed as differences in costs (or costs per square meter) or revenues (or revenues per square meter). For example, a sub-optimal heating system that results in a higher average monthly cost for the property during the heating season or a higher cost per square metre of heated area.

“If a functionally obsolete property can be rented, the value of its functional obsolescence may be calculated by the present value of the ‘lost’ rent resulting from the property’s functional inadequacy.”

6. Examples of determining functional obsolescence

6.1. Example 1a – Assessment of functional obsolescence of a property not compliant with modern energy standards

The building subject to valuation is energy-inefficient compared to a typical building. We obtained data on the excess consumption due to energy inefficiency and simultaneously estimated the costs of energy renovation.

Annual losses due to energy inefficiency	EUR 1,000
Capitalisation rate	5%
Capitalised amount of losses	EUR 20,000
Energy renovation	EUR 15,000
Functional obsolescence	EUR 15,000

In this case, the functional obsolescence is curable, as the cost of renovation is lower than the capitalised value of the annual losses if no renovation is carried out.

6.2. Example 1b – Assessment of functional obsolescence of a property not compliant with modern energy standards

Same case as 1a, but with lower estimated annual losses.

Annual losses due to energy inefficiency	EUR 500
Capitalisation rate	5%
Capitalised amount of losses	EUR 10,000
Energy renovation	EUR 15,000
Functional obsolescence	EUR 10,000

In this case, the functional obsolescence is incurable, as the cost of renovation is higher than the capitalised value of the annual losses if the renovation is not carried out.

6.3. Example 2 – Assessment of functional obsolescence due to impracticality

The office space being assessed has a higher proportion of unusable space (space that cannot be rented out) than similar office space.

Office space to be evaluated	
Office space to be assessed – net floor area	100 m ²
Office space – usable (lettable) area	70 m ²
Potential fixed rental income	EUR 10/m ² /month
Capitalisation rate	5%
Estimated value	EUR 168,000
Estimated value per m ² NFA	EUR 1,680/m ²
Similar office spaces	
Similar office spaces – net floor area	100 m ²
Similar office spaces – usable (lettable) area	80 m ²
Potential fixed rental income	EUR 10/m ² /month
Capitalisation rate	5%
Estimated value	EUR 192,000
Estimated value per m ² NFA	EUR 1,920/m ²
Functional obsolescence	EUR 240/m²

In this case, functional obsolescence is incurable, as the proportion of unusable surfaces cannot be reduced.

6.4. Example 3 – Assessment of functional obsolescence due to inadequacy

The market price of properties that are functionally obsolete is generally lower than that of comparable properties not affected by such obsolescence. Any functional obsolescence must be considered in the comparative method by making an appropriate adjustment or, more appropriately, if practicable, by making an appropriate selection of comparable sales that contain similar functional obsolescence.

From our analysis of the property market, we have found that the prices of two-bedroom flats which are the size of a typical three-bedroom flat are lower than the prices of typical three-bedroom flats:

Sale prices for two-bedroom flats the size of a typical three-bedroom flat	EUR 1,500/m ²
Sale prices of three-bedroom flats	EUR 1,600/m ²
Functional obsolescence	EUR 100/m²

In this case, functional obsolescence is incurable (if the flat cannot be converted into a functional three-bedroom flat).

6.5. Example 4 – Assessment of functional obsolescence due to oversizing

The market price of new, 13 m² parking spaces in a garage is EUR 13,000. We need to appraise a parking space with an unusual layout resulting in an area of 18 m². It may be established that it is not possible to sell such a parking space on the market at a higher price than comparable parking spaces (which means that market prices already include functional obsolescence due to excess), and that the stabilised profit from such a parking space is the same as the stabilised profit from a similar, but typically sized, parking space (EUR 650/year). Therefore, we need to make an adjustment to the cost approach, as shown in the following table.

Replacement value of a typical parking space (no functional obsolescence for this parking space)	EUR 13,000
Replacement value of the assessed parking space (before functional obsolescence)	EUR 18,000
Stabilised profit for a typical parking space (EUR 650/year)	EUR 50/m ²
Stabilised profit for an existing parking space (EUR 650/year)	EUR 36.11/m ²
Loss of profit	EUR 13.89/m ²
Capitalisation rate	5%
Functional obsolescence	EUR 277.8/m ²
Functional obsolescence	EUR 5,000.40

The analysis has shown that the excess space cannot be rented out or sold, so functional obsolescence must also be taken into account in the cost approach.

“In the context of the drive towards eco-friendliness and energy efficiency of buildings, it is worth noting that functional obsolescence resulting from excessive operating costs due to outdated energy solutions and wastefulness is often overlooked.”

7. Conclusion

Functional obsolescence is any form of reduction in the utility of real estate, which first manifests itself in excessive operating or capital cost. It is relatively common in practice but is often overlooked.

In the context of the drive towards eco-friendliness and energy efficiency of buildings, it is worth noting that functional obsolescence resulting from excessive operating costs due to outdated energy solutions and wastefulness is often overlooked. However, these are not the only functional challenges buildings face. It is not uncommon to find sub-optimal solutions whose modern replacements incur lower capital maintenance costs. Properties that have relatively high capital costs in relation to the potential return should also be included in this group.

When property valuations are based on the income approach, functional obsolescence is usually ‘built in’ to the expected rents (if these are estimated carefully); as

a result, it is ‘automatically’ reflected in the valuations. However, a little more caution is needed when assessing the value of property using the comparative method. Here it is sufficient to identify the functional obsolescence and find comparables on the market with the same functional defects. In the absence of such comparables, the adjustments described above will be necessary.

The cost approach requires a detailed analysis of the property. If a functional deficiency is detected, it must be calculated.

8. Sources and literature

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#02

Valuing in non-transparent markets



Izabela Račka

Accurately determining the value of a property is crucial for the various parties operating in the real estate market: buyers and sellers, owners and investors, developers and brokers, as well as banks, the state and local authorities, and tax authorities.

The practice of property valuation is not universal, but valuers, regardless of the country in which they operate, seek to access the best market evidence to serve as the basis for the property valuation. In each country, one can find legislation, case law, standards and/or recommendations from professional bodies indicating what comparable market evidence is considered the best.

Ideally, market analysis for property valuation is based on transaction prices and characteristics of sold properties from sales contracts or other documents. This is possible for some European countries where property prices are officially recorded.

The transaction price of a property is the reliable and actual (real) price of the property sold, derived from the most reliable source, the notarial deed. Property transaction prices are also referred to as transfer prices.

The transaction price results from the equation of property supply and demand. **Supply** is usually estimated on the basis of the number of available sales offers. Data on the supply of real estate is not collected by public institutions, which usually only record the existing stock of real estate. The supply of real estate is reported by commercial agencies that constantly monitor the market (reports usually concern prime properties in key locations). Data on supply can be obtained from numerous real estate agencies, as well as from popular portals with property sales offers. In countries not practicing exclusive brokerage agreements, the same property is offered for sale repeatedly as a result of being posted by several agents at the same time, sometimes at different prices, and descriptions of the location and features of the property vary. Supply is determined by: the existing stock of properties, the scale of renovations and upgrades carried out, property losses (demolitions) and changes in function, new construction, zoning plans, the timing of building permits, the level of economic activity, the level of prices in the construction industry, etc. **Demand** for real estate is measured by the number of market transactions actually concluded. The main factors shaping real estate demand include: prices (rents, interest rates), specific needs and the level of their satisfaction, economic factors, the state of the labour market, demographic factors, migration processes, preferences, etc.

Unfortunately, real estate markets are not transparent in all countries. In transparent markets, valuers have access to direct transactional evidence, often showing a tendency to dismiss offer price information as too different from transactional prices. Offer prices should therefore be treated with caution. However, in markets where access to real transactions is difficult, offer price information becomes useful. In some countries, there are problems with the availability of transactional data – contracts are not recorded or access to them is expensive, thus unattainable for a single valuer. Sometimes the reliability of information on property prices contained in sales contracts is insufficient. The transaction prices stated in the deeds may be actual prices (equal to the amount for which the property was purchased), or they may be “spurious”. Actual prices primarily include market prices, but “amateur prices” also appear, i.e. the actual amounts that were paid for the properties, but influenced by the subjectivity of the seller and/or the buyer. ‘Spurious’ prices, on the other hand, arise when the parties to a transaction wish to understate or overstate the transaction price. Underpricing may aim to reduce the tax base associated with the purchase of the property, and overpricing may support an overvaluation of the mortgage security or a reduction in the minimum deposit required to obtain a loan.

In addition, the information contained in notarial deeds is limited to basic address data and laconic characteristics, which makes it impossible to identify the differentiating features of properties and to study the contribution of the influence of individual features to price formation. Transaction prices are available to valuers with a time

lag and this is uneven, making it difficult to analyse price changes over time. There are instances when the market is static and then the level of transaction prices remains unchanged, but the market can also fall or rise.

The disadvantages of using only transaction prices for market analysis and property valuation encourage the use of offer prices. The lack of market transparency caused by not disclosing the true consistency of sales prices makes it necessary for valuers to use offer prices as a comparative element or one such element in a market approach.

The offer price of a property is the price that is determined by the seller with the assistance of a valuer, real estate agent or independently. The offer price is usually derived from the prices on the market, the amount of demand, the technical and usable condition of the property, its location and other property characteristics. Often the bidder inflates the asking price in order to be able to lower it during negotiations with the potential buyer. The offer price may fluctuate over time, e.g. decrease if there is little interest in the property; or increase if there is strong interest in the offer.

Observation of bidder behaviour shows that in some market sectors there is a certain minimum price that determines the decision to sell or, for sellers not in a forced

situation, to postpone the sale rather than sell at an unsatisfactory price.

Due to the diversity of properties and sellers’ expectations, the range of offer prices is large, often greater than that of transaction prices.

“The offer price is usually derived from the prices on the market, the amount of demand, the technical and usable condition of the property, its location and other property characteristics.”

“By considering the market cycle and its degree of liquidity, a valuer experienced in a given market can judge the relationship between offer prices and the likely sale prices of a property...”

An obvious problem arising from the use of offer prices for market analysis and property valuation is (usually) the lack of correspondence with actual sale prices. In some countries, depending on the state of the market, asking prices are lower than selling prices. In others, the opposite is the case. This is not only due to the phase of the business cycle that the market is in at the time, but also to cultural factors. In some countries, buyers negotiate the price; in others, they make a non-negotiable offer to the seller. By considering the market cycle and its degree of liquidity, a valuer experienced in a given market can judge the relationship between offer prices and the likely sale prices of a property and therefore, in the absence of other reliable price data, the use of offer price information is important and desirable.

The international property valuation literature recognises the importance of analysing the relationship between asking prices and sales prices or the time on the market for interpreting the market.

The scale of transactions in the market relative to the size of the offer determines whether the market is in equilibrium or a seller's or buyer's market. Some analysts consider a property market to be in relative equilibrium when the current number of listings equals the number of transactions completed in the last four quarters. Others believe that the property market is most often in permanent imbalance, caused, among other things, by the rigidity of offer prices. The long-term maintenance of a high level of asking prices in a situation of excess supply causes long-term imbalances.

There are two types of market imbalance: overdemand (seller's market) and over-supply (buyer's market).

A *seller's market* occurs when the demand for properties is higher than the supply. This means a lower number of properties currently offered for sale than the number of property transactions concluded. A small or decreasing difference between asking and transaction prices implies a favourable or improving position for the seller. This type of market signifies the ease of disposing of the property, which manifests itself in the short time required to complete the transaction.

A *buyer's market* occurs when the supply of real estate is higher than the demand for it - this is especially the case when the financial capacity of potential buyers is reduced (e.g. tighter credit policies of banks, economic slowdown or crisis). Here, the number of properties currently offered for sale is higher than the number of transactions concluded. A large or increasing difference between transaction and offer prices means a favourable position for the buyer. In such a situation, customers will expect price discounts (especially customers financing the purchase with their own funds). Sellers must then decide to reduce the price or postpone the sale. The large prevalence of offer prices over transaction prices, combined with the reluctance of sellers to reduce the price or procrastination in doing so, prolongs the exposure period of the property on the market.

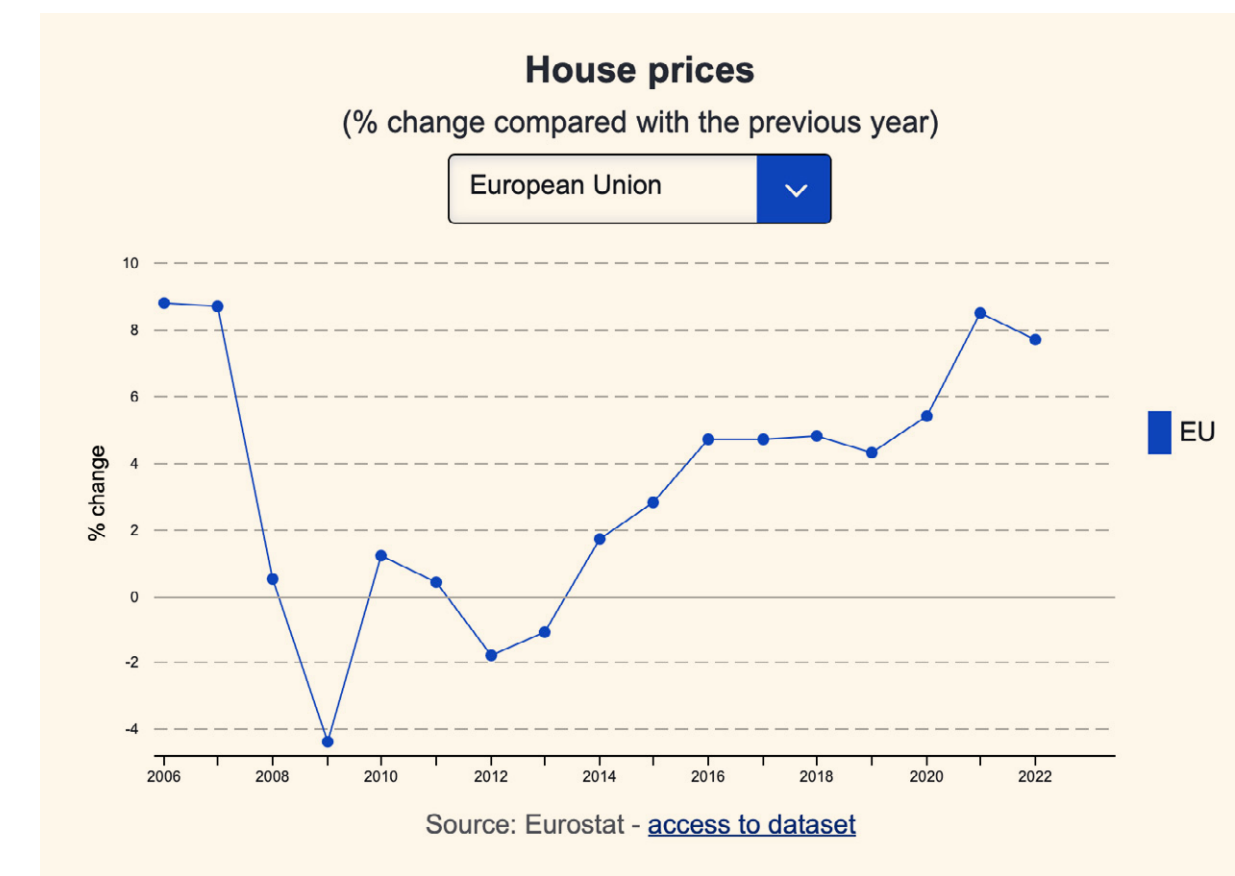
It should be noted that asking prices are not a tangible result of the forces of supply and demand and are therefore not a fully reliable source of information about the market situation. First and foremost, they reflect the expectations of the supply side of the market. Through comparison with transaction prices, however, they are helpful in identifying the phase of the market cycle.

In the case of a seller's market, we are most often dealing with an expansion phase (decreasing prevalence of asking prices over transaction prices) or a boom phase (slight prevalence of asking prices over transaction prices). In addition, in periods of boom or the occurrence of "price bubbles" in the real estate market, some (few) properties may be sold at prices higher than the asking price, which results, for example, from multi-offer "bidding wars".

A *buyer's market* will correspond to a recessionary phase (increasing prevalence of asking prices over transaction prices) or depressed phase (confirmed long-lasting prevalence of asking prices over transaction prices).

The price of real estate is subject to market rules, subject to changes due to the influence of factors arising directly from the market as well as external, macroeconomic factors. Transaction prices inform market participants as to whether the allocation of resources they are making will achieve the best possible results. They are therefore a signal indicating the directions of resource flows and an incentive to undertake or abandon activities. Information on concluded transactions and the prices agreed as a result of the parties' negotiations is usually available with a delay. The purchase process can take from a few weeks to even a few months, often depending on the source of financing (shorter time in the case of buyer's equity, longer with bank credit). In addition, due to the dispersion of the real estate market and the legal formalities accompanying property transactions, the time elapsing from the conclusion of the preliminary sale agreement to the moment when the valuer can obtain information on the transaction price included in the final agreement may be as long as half a year.

In an environment of dynamic market changes, it is therefore particularly important to keep track of property sales offers despite the fact that these are only a proxy for transaction prices.



[Click on chart to access online](#)

#03

Residential EPC assessor and valuer in Brussels – Two complementary activities



Eric De Keghel

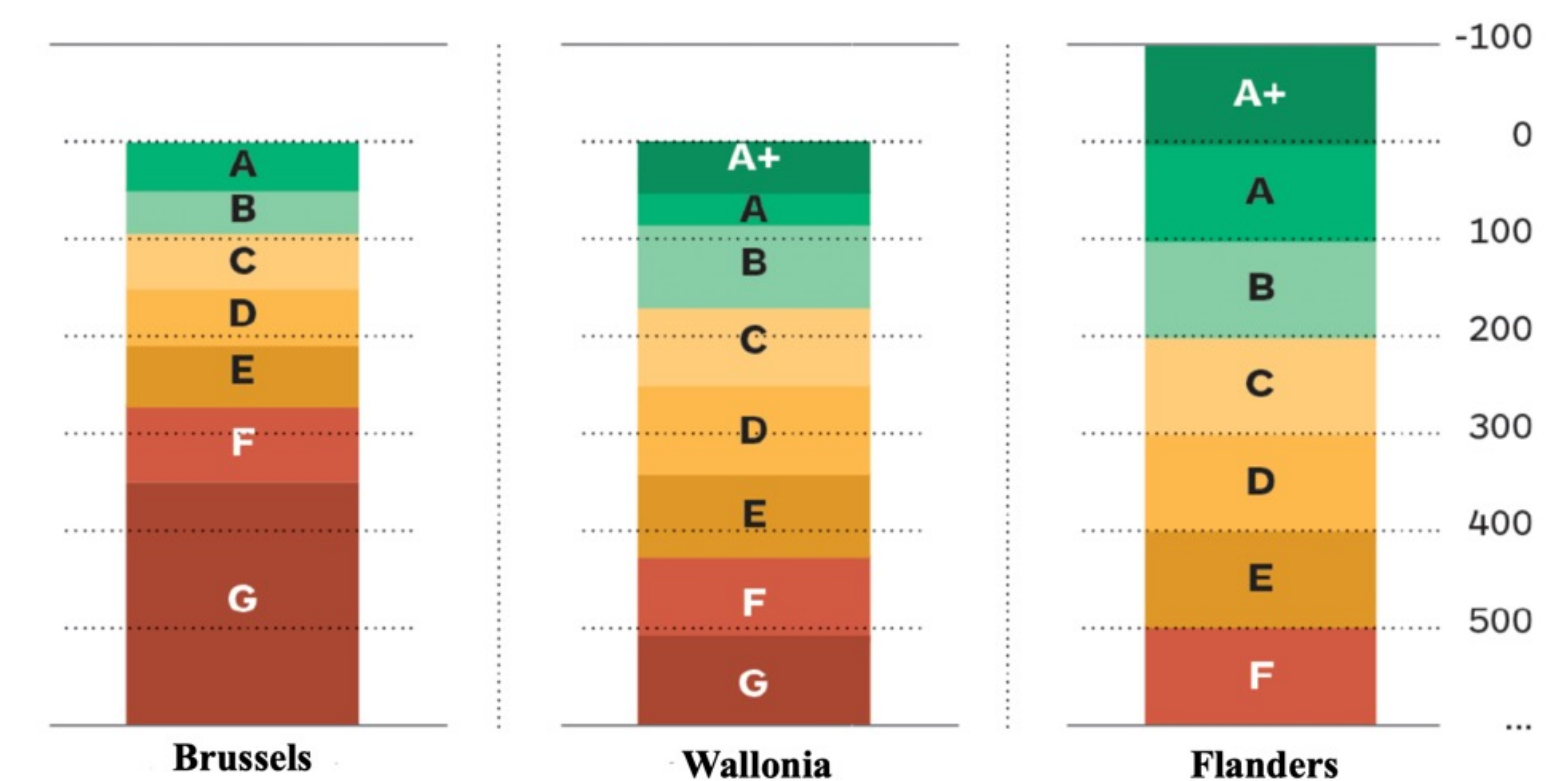
In Belgium, energy policy is regionalised: the energy performance certificate (EPC) assessment process is therefore completely different in Flanders, Brussels¹ and Wallonia. Not only are the ratings (from A to G) not the same, but the procedure and calculation method also differ. It is impossible therefore to compare certificates from the three regions, which is essential for the implementation of EU directives.

This poses a problem in terms of transparency for prospective tenants or buyers in Brussels and the surrounding area, since the Flemish Region and the Walloon Region are very close to each other and a prospective tenant or buyer could be interested in properties located in all three regions.

The regional average must be a **D rating**, which corresponds to the following theoretical consumption, depending on the region:

- ▶ Brussels: 151 to 210 kWh/m² per year
- ▶ Wallonia: 255 to 340 kWh/m² per year
- ▶ Flanders: 301 to 400 kWh/m² per year

Energy performance scale by region kWh/m².an



¹ Brussels is a city-region (the 'Brussels Capital Region') with a population of 1.2 million inhabitants and an area of 161 km². It is the only city in Europe that has its own EPC certification system.

The rules are much stricter in Brussels because the city predominantly consists of apartments and semi-detached houses with fewer heat-loss walls than detached houses, which are more common in Flanders and Wallonia. In theory, therefore, the average rating is better, even though the figures were calculated before the first certificates were produced.

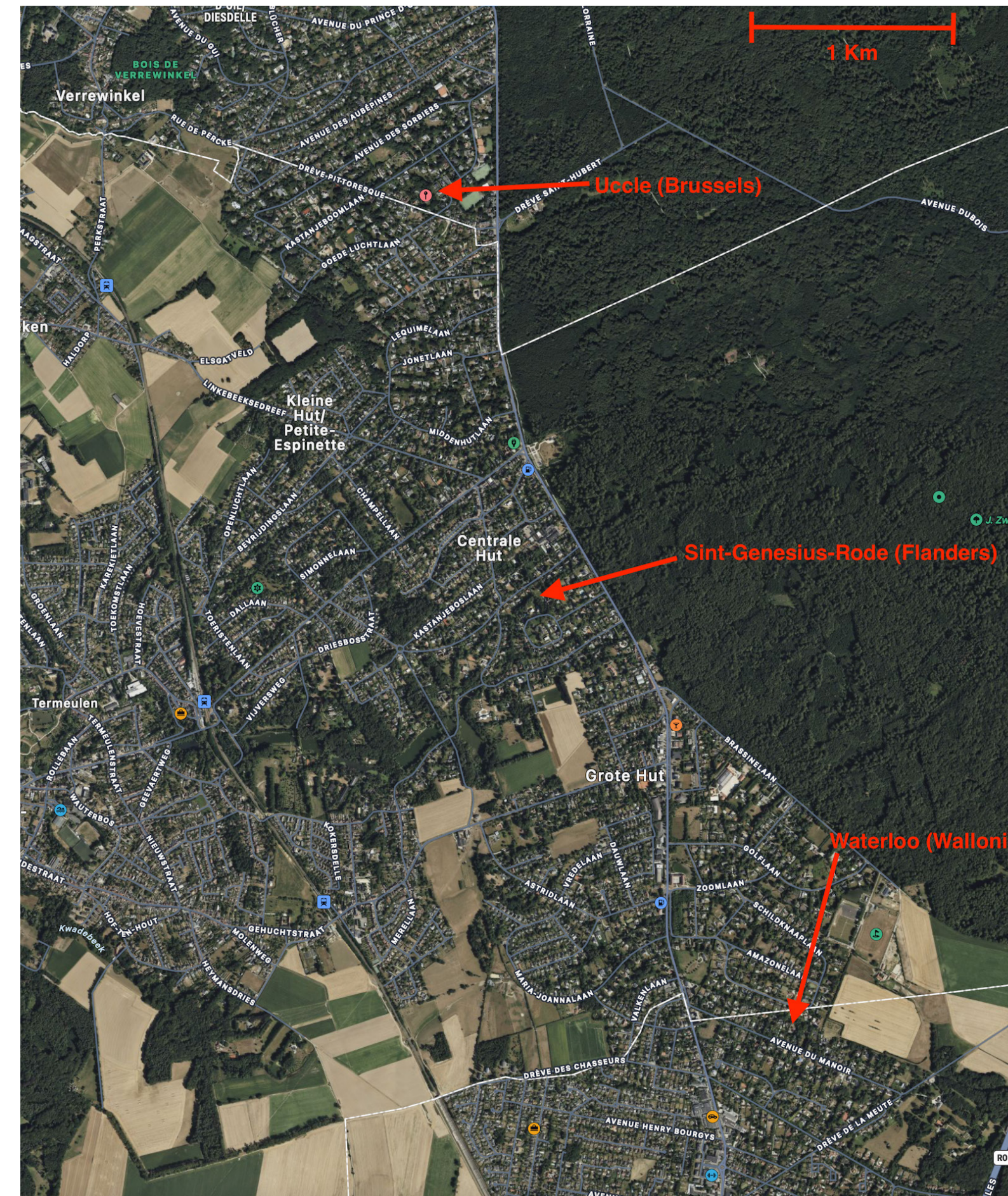
If the calculation procedures were similar, we could at least compare consumption, even for different ratings, but this is far from being the case. It is impossible to compare certificates from the three regions, which in many ways epitomises Belgian surrealism!

Imagine a prospective buyer looking for a detached house in the southern suburbs of Brussels. He identifies three properties for sale, within a 5 km radius, located in Uccle (Brussels-Capital Region), Sint-Genesius-Rode (Flanders) and Waterloo (Wallonia).

Even if the three houses are of similar construction, it is impossible to compare their EPCs and thus their energy performance. The theoretical consumption of the properties has been calculated according to three entirely different methods, which makes any comparison impossible.

As an assessor in the Brussels-Capital Region, I can only share with you my experience as a residential assessor in Brussels. In addition to **residential certification** (all existing dwellings, houses and apartments), there are very different procedures for the tertiary sector (offices with an area of more than 500 m²) and for public buildings, which I am not qualified to assess. There is also a separate procedure for construction and renovation works (EPC for works). In this case, an **EPC adviser** will perform the assessment. I have not been trained in this role, which differs from that of the EPC assessor.

I first trained as a residential EPC assessor in 2011, when the EPC became a legal requirement in Brussels. The training was organised by the UGEB-ULEB², which was accredited as a training provider after putting together a portfolio and passing a trainers' exam.



² Ndlr: Union of Expert Surveyors of Brussels (TEGOVA member association of which the author is a member).

Surveyor-valuers were aware of the importance of climate change and the opportunities that energy certification represented for their business.

At the time, you did not need a degree to become an assessor: you just had to complete a 40-hour training course and sit an exam. Since then, the law has changed, mainly as a result of abuse: some assessors weren't even visiting the properties they were supposed to be assessing.

You now need an architectural or engineering degree (or evidence of work experience in a field relating to building energy performance) and have to go on a course before taking a central exam.

In 2019, all assessors had to undergo refresher training and sit this quite difficult exam (with a 34% success rate). There are currently 224 accredited residential assessors in Brussels, whereas there were 1,247 in 2018.

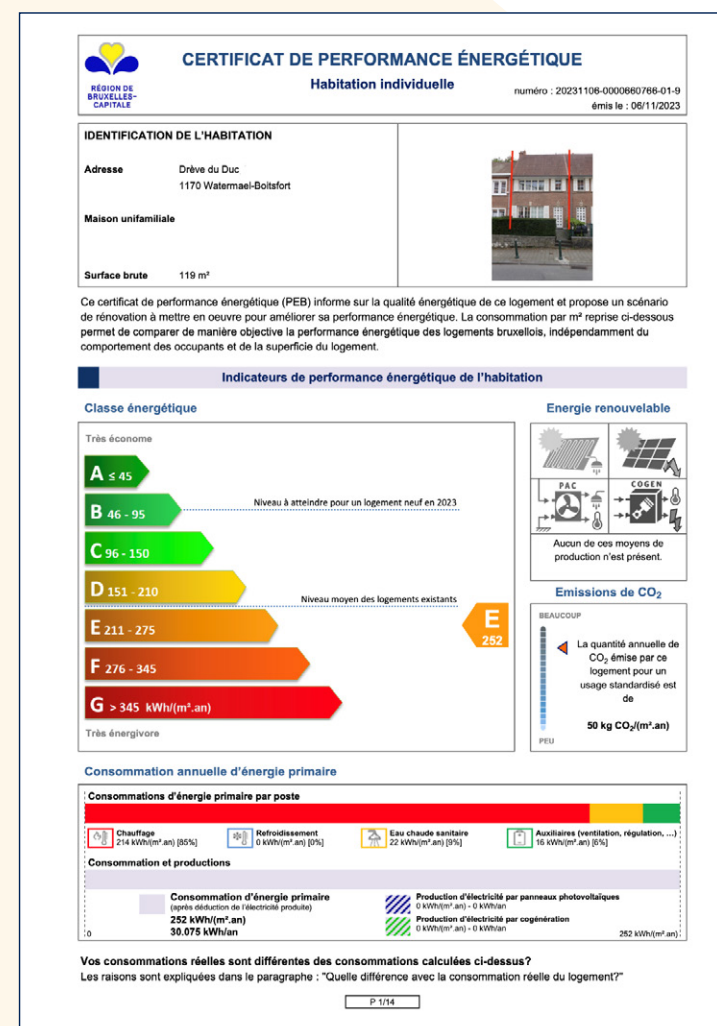
The assessor must specify the floor surfaces and the size of the Protected Volume³, all heat-loss surfaces (roofs, facades, walls to unheated spaces, floors, window frames, doors, etc.) with their insulation parameters. All the features of the heating and hot water systems are also specified, as well as any cooling systems, solar panels, etc.

The software⁴ automatically generates the certificate with the theoretical consumption and recommended improvements, as well as a specification report containing all the data. This allows the client to check all the specified data. The assessor has no influence over the content of the certificate (except the specified data).

The limitations of the software represent a significant workload for the assessors. Although some large firms charge far too little to be able to offer quality work, some clients are fortunately willing to pay for an assessor to do a thorough assessment and to take the time to advise them properly. This advice goes far beyond the general recommendations generated by the software. For example, for facade insulation, the assessor can examine which facades are easiest to insulate and how to do it, whether from the inside or outside. For ventilation, the software always quantifies the benefits of installing controlled mechanical ventilation with heat recovery. However, in most old houses, this is impossible to do. The assessor will identify which improvements offer the best value for money, striving for the best performance within budget, taking into account the difficulty of carrying out certain works and any external constraints such as the need to obtain consent from a neighbour or condominium/co-ownership assembly.

Clients used to see the certificate as a formality that had to be completed before they could sell or let their property. However, most clients now realise how important it is, particularly as it has to be produced whenever selling or letting a property. The number of checks has also increased. Estate agents have generally become accustomed to asking for the certificate before marketing a property. Clients want advice on how to improve performance, mindful that they will soon be required to carry out the improvements. Energy performance is also having an increasing influence on property values.

In 2022, the regional authority passed a law requiring the EPC to have a D rating or higher in order to be able to index-link rents for accommodation in Brussels. An E rating means that rents can be 50% index-linked. As the indexation was 12% that year, the measure had a significant impact: many owners wanted to improve the energy performance of their property, which resulted in extra work for assessors. This transitional measure was only valid for a year and was not repeated in 2023. However, the indexation for 2023 is still based on the certificate's rating.



³ The Protected Volume is the volume taken into account to calculate the certificate: it is the outer envelope of the building (or at least the inhabited and heated parts). There is a whole protocol for determining the Protected Volume because certain parts of the building can be excluded, such as uninsulated cellars or attics.

⁴ Each region has designed its own calculation software which produces certificates on the basis of the data specified by the assessor. The assessor simply enters the data and the software does the rest. It is based on an algorithm that was designed according to the priorities chosen by each region. There are various shortcuts to facilitate data entry, for example for the types of walls.

“There are several reasons why clients like the fact that valuers are also EPC assessors”

Banks also vary their conditions for granting a mortgage loan depending on the EPC.

There are several reasons why clients like the fact that valuers are also EPC assessors:

- ▶ They have the skills to assess the energy performance of the property being valued, and even if an EPC already exists, they can give tailored advice on how to improve energy performance. I regularly find glaring errors in existing certificates by non-valuer assessors, even without checking everything, for example with the floor area. Sometimes the assessor has not received or looked for evidence of insulation. If so, he or she will enter default values, which are extremely unfavourable. I can sometimes get information about insulation or see the insulation for myself, which improves the result.
- ▶ The valuer-assessor can produce the EPC at the same time as the valuation (e.g. for properties that are for sale).
- ▶ Given the growing importance of energy performance, the influence over the property's value is increasingly significant. The valuer has the advantage of being able to spot possible improvements and calculate the resulting costs.

A certificate for an average-sized apartment usually requires an hour of on-site work and one to two hours of calculation and specification. For a large detached house with a complex roof, it can take three to four times longer. The price charged therefore has to reflect the complexity of the heat-loss surfaces of each property. For apartments, this will depend on the heating system, especially if it is common throughout the whole building (in which case the boiler room will have to be inspected and information obtained about the heating and hot water system: producer specifications, number of dwellings, length of pipes and number of non-insulated components, etc.).

“The price charged has to reflect the complexity of the heat-loss surfaces of each property.”

“My fees aren’t competitive with those of EPC assessors, but some clients are prepared to pay for an assessor who does a thorough job and, more importantly, gives them useful tips on how to improve performance”

It also takes time to compile the necessary evidence and it can be a while before some certificates are available. All data has to be accompanied by dated evidence. For example, if a wall is insulated, dated evidence confirming the type of insulation and its thickness will have to be provided (invoice, signed estimate, specifications, etc.).

EPCs currently account for around a third of my business. I charge the same fees as I do for valuations. My fees aren’t competitive with those of EPC assessors, but some clients are prepared to pay for an assessor who does a thorough job and, more importantly, gives them useful tips on how to improve performance. Until the certificate is officially registered, the data can be altered in order to do simulations. It is possible therefore to inform the client of the exact benefits of each proposed improvement.

A surge in demand is expected in the near future, since a certificate will be required for all residential properties in Brussels (even if they are not sold or rented), probably from 2026.

Renovation works will also become mandatory, with the recommended improvements having to be carried out every five years to achieve a theoretical consumption of 100 kWh/m² per year by 2050. This is an extremely ambitious goal which will be impossible to achieve for some properties: in those cases, the prescribed improvements will have to be carried out without achieving the desired result. Generous grants are available to help citizens carry out the work. The measures have yet to become law.

There are also plans to harmonise the various procedures (residential, tertiary and public building certificate, EPC for works, etc.) by creating a new role of EPC Expert. The EPC Expert would be able to carry out all EPC procedures. Further training will be necessary in order to qualify as an EPC Expert.

Personally, I will have to decide whether to go down this route and scale back my other activities, or abandon energy certification and use my skills in this field for other services, such as property valuation. It’s a tough choice.

Eric De Kegel REV has been a property surveyor-valuer since 1991. He is director of the Bureau d’Expertises Wargnies-De Kegel-Linthout, chairman of the Commission du Marché Immobilier of the UGEB-ULEB, residential EPC assessor in the Brussels-Capital Region and European Building Expert EurBE.



AGRICULTURAL VALUATION

#04

The specificities of real estate valuation in the agricultural sector



Angelo Donato Berloco

European agriculture is facing increasingly complex challenges matched only by the new development opportunities they create. It is a top EU priority to make European agriculture increasingly modern, innovative and sustainable, all of which must be matched by objective real estate valuations because in the agricultural sector just as much as elsewhere, quality valuation provides a solid basis for financial decisions, investments and real estate transactions. It requires compliance with a series of estimation postulates among which the application of the comparative method is fundamental.

There is an intuitive simplicity to the comparative method. However, though it is simple and intuitive to understand *why* it is necessary to compare, the same cannot be said about *how* to concretely apply this principle in valuation practice, especially in the agricultural field¹. This is because

agricultural properties have “*strong individual characteristics*”². As prof. Giuseppe Medici observed, valuers in the agricultural sector frequently find themselves verifying how complicated the valuation procedure is as we move from the few uniform and standardised properties to the many highly differentiated ones. In addition, agricultural valuers find themselves operating with “uncontemporary” sales data compared to the date of valuation.

“It is a top EU priority to make European agriculture increasingly modern, innovative and sustainable, all of which must be matched by objective real estate valuations”

¹ The transition from the theory of the comparative principle to professional practice has also been discussed in A. D. Berloco and G. Grittani, 1989, *La comparazione quale presupposto logico dei giudizi di stima*, *Genio Rurale* n. 9, pp. 37-44.

² In 1934 Prof. Medici published his famous *Introduction to Agricultural Appraisal*, which led to the *Principles of Appraisal* of 1948, a text that went through many editions and was adopted in numerous schools. His studies in the field of appraisal also made him known abroad and many foreign universities invited him to hold courses and conferences.

As a consequence, there is a need to “adapt” the *law of price indifference* to real situations, using all the tools made available by valuation methodology (postulates, procedures, valuation standards, etc.). The law of price indifference (also known as *Jevons’ law*) is general and can be summarised as “*Identical goods, at the same time and in the same (perfect) market, can only have the same price.*”

It must be said that this theoretical valuation approach is not always put into practice correctly, with the resulting operational uncertainty often producing *expertise* rather than scientific *valuation* proper.

More specifically, **expertise** is a professional practice that estimates the market value of real estate through a synthetic and subjective judgment, without the detection of a sample of market prices and consequently is neither demonstrable nor verifiable.

On the other hand, **professional valuation** is that carried out by a qualified valuer, i.e. a professional who knows

the phenomena investigated and is able to measure them, to detect market data and arrive at estimations of value made objective (verifiable) by using recognised valuation standards such as EVS as a yardstick.

The special characteristics of agricultural property

Agricultural properties are complex assets, as they consist of the original land and the endowments of buildings, infrastructures, temporary and permanent crops, plant and machinery, livestock and agricultural industries for the processing of agricultural products.

In general terms, the characteristics of agricultural real estate can be divided into quantitative (e.g. usable agricultural area) and qualitative (e.g. degree of soil fertility) characteristics.

Some groups of agricultural real estate features are:

1. **surface characteristics** (distinguished by type of crop, annual or perennial);
2. **location** (relating to the location of the property in the territorial context, in relation to infrastructures, services, etc.);
3. **positional characteristics** (relating to altitude, slope, position and exposure of the terrain);
4. **typological characteristics** (relating to soil fertility, presence of irrigation water, land investments, topsoil, presence of livestock and processing industries);
5. **contractual characteristics** (relating to conditions and limitations of use of the property – e.g. vacant or rented).

“Agricultural properties are complex assets”

Good valuations for informed decisions in a context of higher scarcity of comparables

In the agricultural sector as elsewhere, estimation of value means predicting what probability the market value has of occurring in the context of two extreme situations ranging from 0 (no probability that the value to be estimated coincides with the selling price) to 1 (exact coincidence).

An estimate as close as possible to 1 must incorporate appropriate procedures and real estate data (consisting of the prices and real estate characteristics of the reference sample) representative of the investigated property. Through the judicious use of appropriate procedures, agricultural valuers operating in a context of scarcity of information higher than that of residential or commercial valuation are able to objectively apply the comparative method, measuring the effect on the formation of the price of the main real estate characteristics.

Having objective and clear assessments enables clients (farmers, banks, funds, etc.) to make informed decisions consistent with the economic and financial context in which they operate. This applies both to entrepreneurs envisaging a new investment and to public and private financiers supporting entrepreneurs in this journey.

The high impact of geopolitics on agriculture and its valuation

Even more than in other sectors, agricultural valuers are faced with growing uncertainty. The actual and foreseeable agricultural macroeconomic impacts of the current extraordinary geo-political situation are even higher than macroeconomic impacts generally and this necessarily shrouds estimates of value in greater uncertainty as by definition valuations are “forward looking”. Yet the valuation report must incorporate the elements known and knowable at the specific date of the valuation (which is necessarily a “point in time”).

Agriculture in EVS 2025

Clearly, the dissemination and application of these procedures requires an unequivocal description and cataloguing of the real estate characteristics to be used in investigating the variability of market prices. Precisely to encourage the dissemination at a European level of a common language for agricultural valuation, TEGOVA has fostered the European Valuation Standards Board’s drafting of specific guidance in EVS 2025. An outline of the work was presented at the TEGOVA General Assembly last October in Bologna, but the key event will be the “EVS 2025 European Agricultural Valuation Conference” on 22 March 2024 in Lisbon. That conference will be the first structured presentation of a draft of the EVS 2025 Guidance Note on Agricultural Valuation and an opportunity for conference participants to debate and influence the final outcome. I hope to see you there.

#05

Sustainable frameworks for Agricultural land market analysis – *A tested Bulgarian model*



Mariya Stanimirova

Notwithstanding national and regional specificities, there is much to be gained from a sustainable model for analysing and assessing the degree of efficiency of the agricultural land market and serving to justify options and recommendations for its development, because well-developed farmland markets can positively impact inefficient land use, the effects of climate change, the average size of land holdings and investment motivation linked to the security of property rights.

“The model described... enables better justification of the valuation approaches and methods chosen.”

Such a model is also an important complement for valuers because by themselves, knowledge of valuation approaches and methods, tracking trends in demand, supply, price of agricultural land and the factors that determine them are necessary but insufficient conditions for forming a comprehensive view of the agricultural land market and the rural real estate market in general. The model described below provides an essential complement to these, enabling better justification of the valuation approaches and methods chosen. The ability to arrive at conclusions on the price of land based on the factors that determine it, such as rent paid, inflation, income of the population in the area, etc. is essential to adequately determining the market value in the specific context. This also applies to knowledge of land market processes in general, related to access to information, regulations, tax policy, etc.

“Land suitability analysis is primarily the analysis of data about the land in terms of realistic alternatives for improving its use.”

This article presents a tried and tested Bulgarian methodological framework for the analysis of the development and efficiency of the agricultural land market ¹. The model can be used in other countries, taking due account of local conditions.

Three groups of factors impact the value of agricultural land:

- i. factors affecting the suitability of land for land use;
- ii. factors determining supply, demand and price of land; and
- iii. factors affecting the efficiency of the agricultural land market.

The first group of factors is related to determining land quality.

Land suitability analysis for agricultural production focuses on factors such as climate, hydrology, topography, soils, land cover, vegetation requirements, etc. and is seen as a stage in the land use planning process ². It consists of “a comparison between the needs for a par-

ticular type of land use and the characteristics of the territorial unit”. The main objective is to determine the optimal land use conditions for a given territorial unit, considering the natural and socio-economic conditions. In most European countries, an assessment of the suitability of land (or more precisely, of its topsoil) for cultivation and yield of the crops concerned was carried out in the 1970s ³. A complex indicator characterising the suitability of land for a particular type of use is its quality. Land quality is assessed by considering the interaction of multiple land characteristics (to be carried out considering the type of land use).

Land suitability analysis is primarily the analysis of data about the land in terms of realistic alternatives for improving its use. It requires a multidisciplinary approach covering soil science, climatology, crop sciences, hydro-remediation, agricultural economics and sociology. Identification of economically important crops for the specific national context is essential.

The second group of factors comprises the prices of agricultural products and inputs produced from the land, the location of the land, the income of the population, the production infrastructure, the degree of fragmentation of the estates, inflation, expectations of future changes in the price of land, etc.

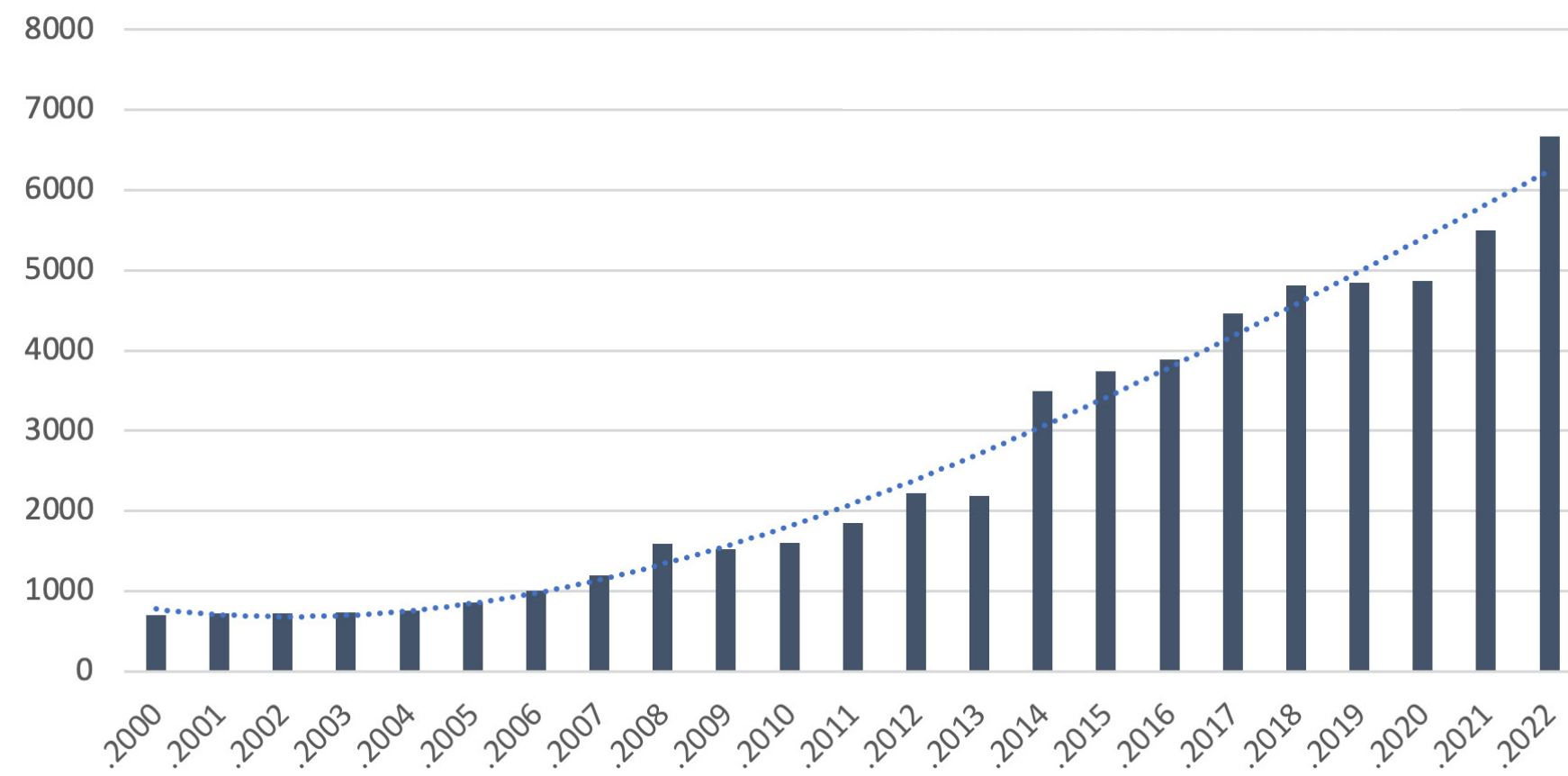
In this part of the analysis, it is important to track the evolution and establish trends in: average land price, average land rent, number of transactions conducted, total area traded, and average size of properties bought or sold. These, in turn, should be analysed both comprehensively and individually.

¹ Stanimirova, M. (2016). Development and efficiency level of the agricultural land market in Bulgaria. Current Issues in Appraisal Practice: Second National Conference of Independent Appraisers in Bulgaria (pp. 8-23). Ruse: Art Print.

² Land use planning refers to the systematic assessment of land and water resources, land use alternatives and the economic and social conditions that influence land use. FAO. Land Evaluation. Towards a Revised Framework, 2007

³ FAO, Land evaluation in Europe, 1976

Fig.1. Change in the average price of agricultural land in Bulgaria for the period 2000-2022 in EURO/ha ⁴



“The differentiation between land prices and also between land rents in the different regions of Bulgaria... can be explained by the relationship between the subsidies paid per hectare and land rent in the context of the EU Common Agricultural Policy (CAP).”

For example, the analysis of the change in the price of agricultural land in Bulgaria shows that, on average, for the period 2000 to 2022 it increases by 13.5% each year compared to the previous year (fig.1).

The differentiation between land prices and also between land rents in the different regions of Bulgaria is significant. The average market price and land rent are many times higher in regions where the average land use is higher and large tenant farms have been formed (as a counter to highly fragmented land ownership). For example, for 2022 the

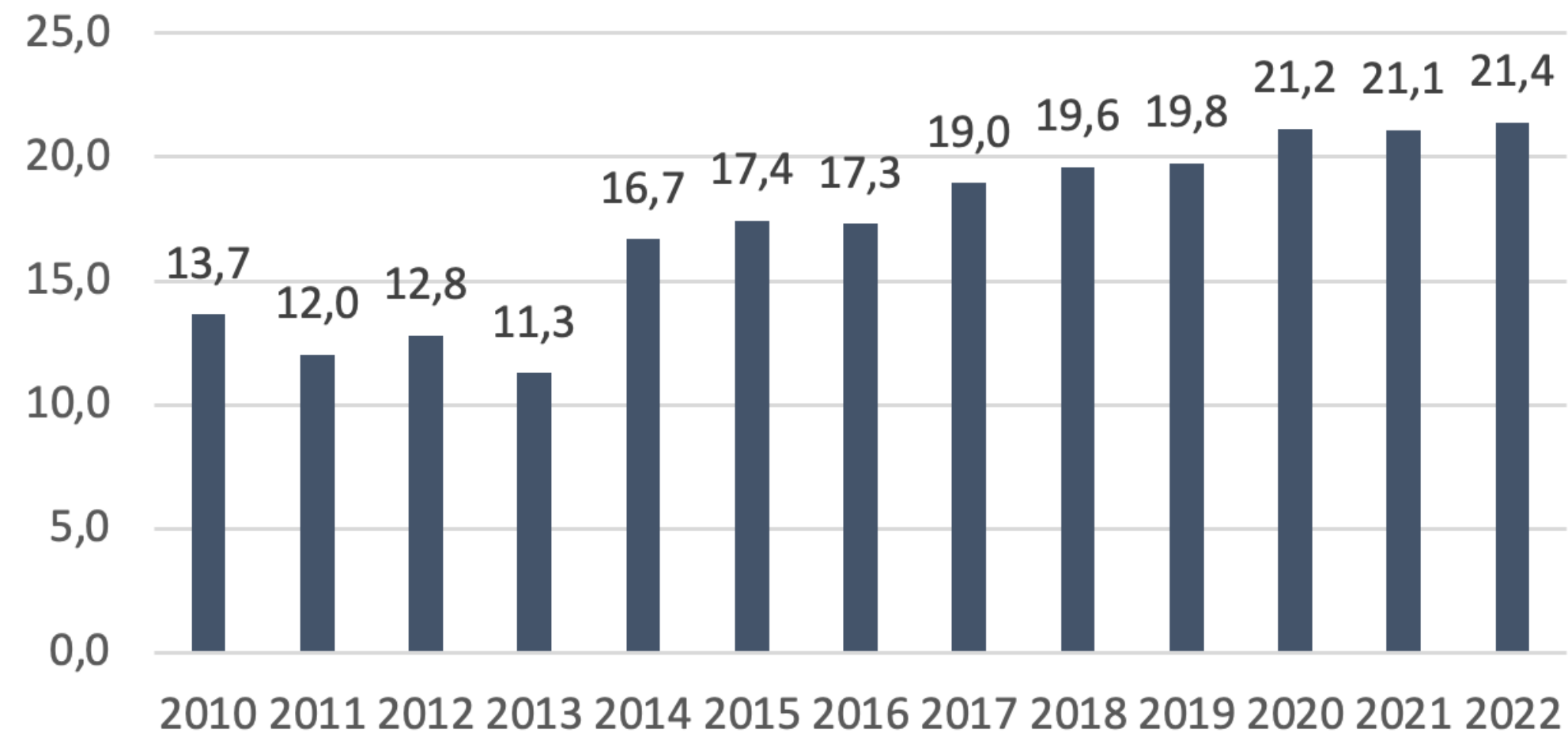
average price is highest in Northeastern Bulgaria (Dobrich region) – 17 210 euro/ha, and lowest in South Central region (Haskovo region) – 2 060 euro/ha. This is also true for the average land rent in these regions, even though it concerns agricultural land of relatively similar quality and suitability for land use, which varies from 110 euros/ha to 800 euros/ha in the respective regions. This can be explained by the relationship between the subsidies paid per hectare and land rent in the context of the EU Common Agricultural Policy (CAP). Supporting agricultural producers leads to an increase in land rent in regions where land use is consoli-

dated, raising the demand for land from both agricultural producers and other investors seeking increasing returns.

Account should be taken of the highly fragmented land ownership in the country. According to the Ministry of Agriculture and Food of Bulgaria, 99% of owners own 80% of the total area and 85% of the number of properties. At the same time, 2.4% of the users cultivate 83.6% of the used agricultural land.

⁴ Source of data for 2000 – 2013: Agricultural Market Information System (AMIS) of the Ministry of Agriculture (<http://www.mzh.government.bg/>). Source of data after 2014: NSI (<http://www.nsi.bg/>).

Fig.2. Ratio between market land price and market rent (income multiplier) ⁵



The ratio between the price of land and the rent for land is also steadily increasing, with this change being most significant at the beginning of the relevant programming period for support under the Rural Development Programme (RDP) in the context of the CAP. Similarly, the ratio between land price and land rent (income multiplier) increases, reaching 21.4 for 2022 (fig.2).

The impact of the land rent on the price of agricultural land over the same period is very strong (coefficient of determination 0.961, statistically significant relationship at standard error $\alpha = 0.000$).

Following on from this part of the analysis of the agricultural land market, it is found that the land rent is influenced to a very high degree by the aggregate production of the country's three leading agricultural crops (coefficient of determination 0.937). Wheat, maize and sunflower crops are included in the analysis, as together they account for more than 80% of utilised agricultural land in the country.

There is a very strong statistically significant correlation between the price of land on the one hand and the total production and the total impact of price indices of the three main crops on the other (table 1).

A statistically significant correlation of the price of land with **consumer income** is also found (coefficient of determination 0.87).

Inflation is another major factor that influences the change in the market price of land and should be considered when determining market value. For the period 2013-2022, a statistically significant correlation between inflation and the price of agricultural land (correlation coefficient of 0.75) is found to be moderate in magnitude and linear.

⁵ The calculations are based on data from the National Statistical Institute of Bulgaria (<http://www.nsi.bg/>).

“The data presented in the table confirms that the average price of agricultural land in Bulgaria is highly dependent on the land rent, itself determined by the yields of the main crops produced in the country”

Table 1
Impact of key factors on the average price of agricultural land in Bulgaria for the period 2010 – 2022

FACTOR	CORRELATION COEFFICIENT OF PEARSON (direction of impact)	COEFFICIENT DETERMINATION	STANDARD ERROR
Land rent	0,98	0,961	0,00
Total impact of production of the three main crops: wheat; maize and sunflower	0,789	0,622	< 0,05
Total impact of the price indices of the three main crops: wheat; maize and sunflower	0,949	0,9	< 0,05
Inflation	0,75	0,56	< 0,05
Consumer income	0,933	0,87	< 0,05

The data presented in the table confirms that the average price of agricultural land in Bulgaria is highly dependent on the land rent, itself determined by the yields of the main crops produced in the country - wheat, maize and sunflower. The impact of consumer incomes is significant, followed by the inflation rate.

On the basis of these values (table 1), it is possible to successfully predict the future change in the average price of land using various methods: through simple extrapolation of the land price, relying on the statistically significant regression dependence of land price on land rent, and employing the income multiplier while considering consumer income and the prices of the main crops produced from land.

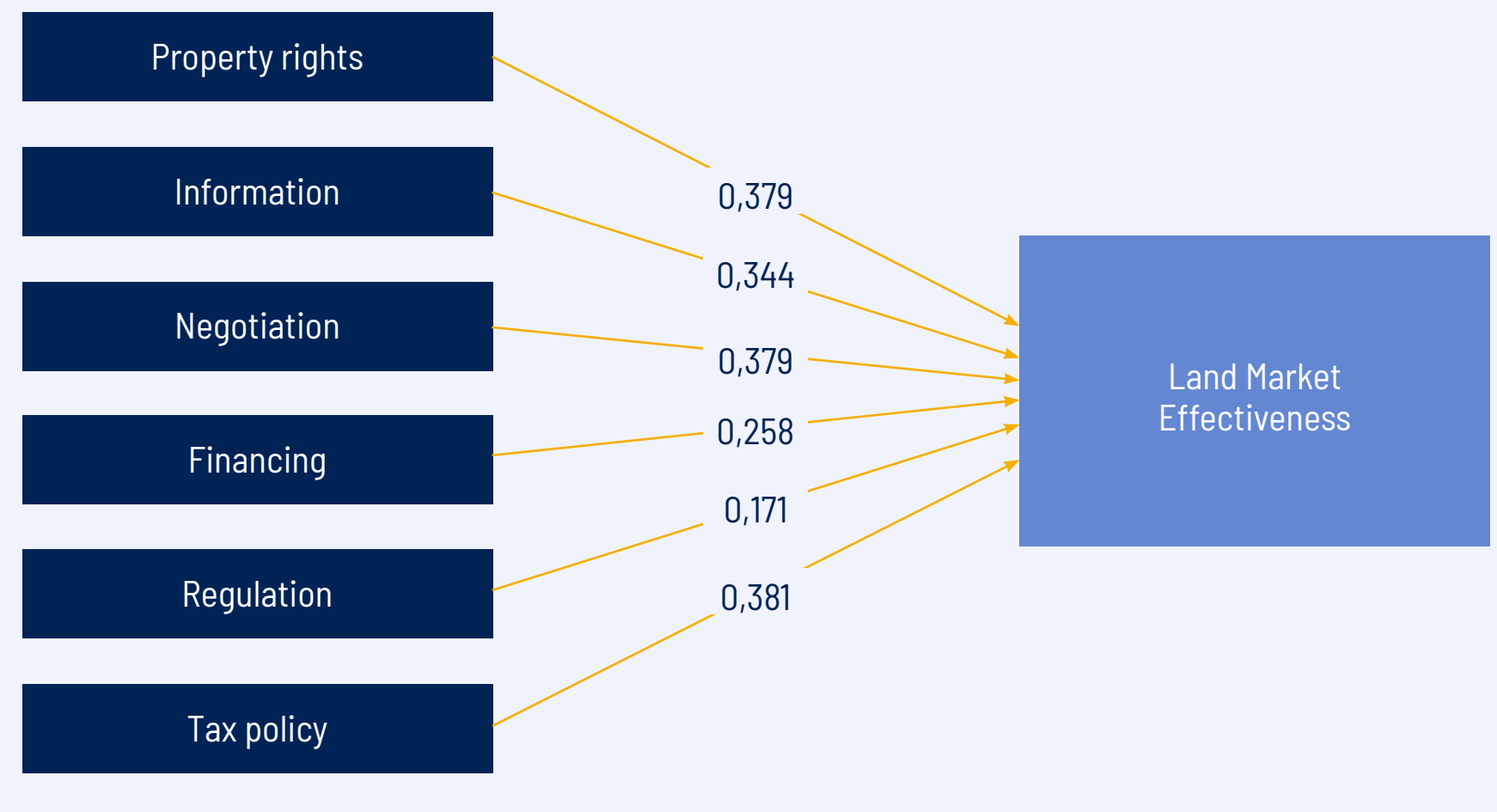
The total amount of traded agricultural land has a strong positive impact on land prices (correlation coefficient 0.815). In the same direction, but with a lower intensity, is the impact of the average size of properties bought and sold (correlation coefficient 0.646).

These factors determining the price of land and representing the main trends in the development of the agricultural land market are not sufficient to reach conclusions about the degree of development and efficiency of the land market. That requires valuers to have a comprehensive view of the agricultural land market and knowledge of the factors influencing the market as a system.

Hence, the **third group of factors** includes those that affect the efficiency of the agricultural land market.

Most often, an efficient agricultural land market is associated with easy market access and smooth market transactions, themselves dependent on the necessary legal and institutional frameworks being in place and adequate regulatory and tax policies implemented.

Fig.3. Model for analysis and evaluation of the efficiency of the agricultural land market



The tested model for Bulgaria reflects the dependence of the level of efficiency of the agricultural land market on a combination of 6 blocks of factors, considered as exogenous variables (fig. 3).

The aggregated factors included in the model are:

1. **Property rights** - associated with the establishment of a clear and secure legal framework on agricultural land ownership and tenure rights. These include the rights to occupy, enjoy, and use; to restrict others from entry or use; to dispose, buy, or inherit; to develop or improve; to cultivate; to sublet; to accrue financial benefits; and to access services in association with land.

2. **Information** - linked to the establishment of an accessible land information system relating to land tenure (cadastre), ownership rights (land registration) and transactions (information on purchase and sale and leasing/renting).
3. **Negotiation** - associated with the smooth negotiation and enactment of property rights.
4. **Financing** of the purchase of agricultural land, including mortgage financing.
5. **Regulation** - refers to restrictions on the ownership and use of agricultural land, the regulation of land prices and leases.
6. **Tax policy** - concerns the taxation of agricultural land and production.

Each of the groups of factors is evaluated on the basis of scaled statements⁶ and a survey of experts knowledgeable in the specifics of land market development. Standardised coefficients reflecting the direct influence of the factor variables on performance were also calculated.

The efficiency of the agricultural land market was assessed using 4 statements measured by standard 5-step (see footnote 6):

- i. Access to the agricultural land market;
- ii. Smooth transactions;
- iii. Contribution of the market to optimising the average size of the estates (countering ownership fragmentation);
- iv. Contribution of the land market to the optimal allocation of land among its users (in terms of production efficiency).

⁶ The model uses statements to measure each of these 6 dimensions on a 5-point Likert-scale where the respondents (experts) are asked to select the most appropriate answer corresponding to the extent of their agreement with a statement. The scales in the survey questions are 1 to 5 with "1" denoting "strongly disagree" and "5" denoting "strongly agree".

The derivation of the factor variables within the proposed framework as well as the study of the relationships between them and the efficiency and degree of market development, enable delineation of the problem areas and determination of the strength and direction of influence of each of the factors included in the model on the degree of market development.

From this flow recommendations to remedy the problems or minimise their negative market impact. For Bulgaria, they mainly relate to:

First. Development of a land information system, including improvements to the cadastre, land registration and land market information systems.

Second. Improving the conditions for access to credit, in terms of agricultural production, including by encouraging financial institutions to accept that commercial bank loans for the purchase of agricultural land be guaranteed by agricultural land.

Third. Seeking means of preserving the integrity of land ownership and so increase the efficiency of agricultural production. Examples: amendments to inheritance law for agricultural land; conducting pilot projects for agricultural land consolidation.

Fourth. Considering the benefits of introducing a tax on agricultural land of landowners not directly engaged in cultivation.

Conclusion. Agricultural land market analysis directs valuers' attention to the factors influencing land's suitability for use. Concomitantly, the land rent, inflation, rural consumer incomes and prices of the main crops produced can be used to forecast trends in the development of the agricultural land market.

On the condition of updating and adapting the model in light of the dynamic nature of the market and of the factors that influence it and also in light of specific national features, the framework for land market evaluation tested for Bulgaria can be successfully used to assess the level of efficiency and the degree of market development of agricultural land in other European countries.

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PROPERTY AND VALUATION IN RE-ELECTRIFYING EUROPE

#06

Your electricity, my land – Property and valuation in re-electrifying Europe



Jeremy Moody



Colin Smith

The special characteristics of agricultural property

Introduction - We are embarked on an energy transformation. Just as electricity was brought to all parts of Europe in the mid-20th century, so we are now starting the enormous work of re-electrifying all Europe, with all that work's interactions with land and property. While public attention is focused on de-carbonised power generation at one end and the new uses of electricity at the other, it has been easy to overlook the basic, necessary task of transmitting and distributing it: lying in a blind spot. Yet, if electricity cannot be moved, its generation is of no use and if it cannot be supplied the transition cannot be made.

Across Europe and much further afield, the inability of historic power networks to transfer electricity from new renewable energy projects to where it will be used is now the major cause of delay in the transition to renewable power. This huge bottleneck is keeping schemes in limbo for years as they wait for connections. In each of Italy, Spain and the UK, more than 150GW of projects are currently queuing for grid connections.

“Valuation questions follow, whether for the value of the rights needed for the cables, compensation for any loss in value of land and property affected, later losses from the fact of a power line or its maintenance and subsequent valuations of burdened property.”

With all its scale and urgency, this is not just the engineering challenge that an operator might see. Upgrading the capacity to move electricity across land and businesses, often farming and forestry, will raise issues under the land law and statutes of each country, balancing the protection of owners' rights and interests with the public need, typically by payment of compensation for costs and losses incurred. New power lines, especially above ground on pylons, can also be politically controversial and subject to intense opposition – as can solar farms and wind turbines – showing a tension between answering climate change and classic conservation concerns.

Equivalent issues arise for conveying other sources of power and heat, such as hydrogen, geothermal and local heat distribution systems as well as for the pipelines for carbon capture and storage.

Valuation questions follow, whether for the value of the rights needed for the cables, compensation for any loss in value of land and property affected, later losses from the fact of a power line or its maintenance and subsequent valuations of burdened property. Issues may range from damage and loss of farm crops and poor restoration of the land to lost development opportunities arising from the existence of protected power lines, whether located above or below ground.

The Transformation of Generation - The need to mitigate climate change by reducing greenhouse gas emissions drives the move we are making from fossil fuel to renewables for electricity generation. Achieving net zero requires us to go much further, at least doubling that electricity generation by 2050 to replace fossil fuels for most heat and transport and other uses. That requires a tripling, quadrupling or more of current renewable energy generation. It is also now driven by global supply chain issues and, for some countries, removing energy dependence on Russia. Effectively, this is the re-electrification of the west. For property, this includes using agricultural land for solar farms and wind turbines, where topography allows creating hydro-powered turbines and pumped storage as well as the development of energy from waste power stations and anaerobic digestion plants, heat pumps, combined heat and power systems and other developments.

The Transformation of Power Networks – Our electricity grids are becoming not just one means of supplying energy but **the** principal way – making electricity **the** primary energy source.

Moreover, we are not only replacing several power sources with just electricity, we are turning 20th century energy systems on their head. They saw fossil fuel power generation in large scale plants from nearby coal, oil (often at ports and railheads) and, then, gas, all sited efficiently between the fuel source and major urban centres to be delivered across countries by carefully managed and balanced power transmission and distribution grids. The new world of distributed energy systems now generates power from wind turbines and solar farms widely spread across land and sea in locations unsuited to the grid. Turbines are placed where the wind is and solar where there is space and sun, typically incompatible with the historic grid.

Not only will much more electricity be needed in every part of a country to support electric vehicles, heat pumps and all the other needs but it is now being generated in far-flung places to be transmitted over long distances. Several wind, hydro or solar farms will usually be needed to replace each old power station, all needing connections. Again, this is the re-electrification of the west in the scale of power to be transmitted, needing millions of kilometres of heavier duty new cables and more substations to bring power from source to homes, offices, factories and farms. With the intermittence of many renewable power sources,

increased power storage by battery sites and other means will be needed alongside both the generation and the movement of power. All these issues will be across land, much of it necessarily rural, to provide critical power to other property and business and will raise questions of valuation, sometimes with competition between needs for power routes and the opportunities for land in generation and storage.

The scale of this should not be underestimated. The European Commission has estimated that €584 billion needs to be spent on member states' grids by 2030 compared with a static €50 billion a year between 2015 and 2020.

For Great Britain alone, this is seen as needing:

- ▶ in the next seven years five times as much transmission infrastructure as in the last 30
- ▶ £350bn of investment by 2050
- ▶ between 200,000 and 600,000 km of additional distribution network cabling required by 2050 in addition to transmission
- ▶ bringing power to on-shore sub-stations from offshore wind farms, and inter-connectors from Norway, Denmark, Belgium, Holland and France as well as potentially for electricity from Morocco's Saharan sun and wind using four 3,800km cables as the longest subsea electricity connector in the world.

Policy is now responding: Large sums are now being spent on expanding the grid. "Uncompromising" priority is being given to connecting the schemes that can go ahead immediately, rather than ones filed more speculatively or those deterred by the large costs quoted for them to pay for the upgrade.

Germany began its Energiewende with the phasing out of nuclear power requiring a major restructuring of its power systems. It, too, found that lack of transmission capacity limited new renewable generation while building new capacity was sometimes controversial. In the USA, nearly 2,000GW of power and storage projects are reported as held up by connection issues – larger than all existing power plant capacity there.

As other countries face proportionately similar requirements, Bloomberg has estimated that the world will need 80 million kilometres of new grid by 2050, more than the entire grids of the world now. Connectors will bring large volumes of power to areas with limited generation or affected by supply issues, moving surplus hydro-electric power from mountain areas or solar power from sunnier areas, making investment more efficient overall. This makes enormous demands on the supply chains for cables and equipment and contractors and so consent has recently been secured for the UK's first cable factory.

The grid as a constraint on development

Inadequate power networks are not only a constraint on the development of renewable energy generation. Limited infrastructure, especially for electricity and also water as key parts of the response to climate change, is forcing real choices over future development. The large power demand of data centres is now pre-empting some housing and commercial development. It was reported this spring that the power used in a TikTok data centre in Norway limited the expansion of nearby ammunition production for Ukraine. This shows the need for the expansion of the grid to enable future development with economic and social growth, unlocking values. The overall costs of delay in improving this infrastructure will be felt across the whole economy.

In practical terms, the physical line of cables, over or underground, can also restrict the options for development or add to its costs where diversion or protection are possible answers. This may be a matter for practical negotiation with or without a possible claim for compensation. It would be better still to think ahead, at property level and more broadly, so that new lines are best sited to support future development, not to frustrate it.

Overground or underground?

Some communities can argue strongly that power lines should be laid underground rather than have pylons cross the landscape. However, underground cables are substantially more costly to install (even with easy soil conditions by at least five times) and then, while perhaps needing less maintenance are more expensive to work on when this is needed. Critically, as air is a better insulator than soil, pylons can carry more power lines closer together while underground cables need to be much further apart, disturbing more land for the same capacity. In the end, this will be a business, political or development control decision with different compensation outcomes in different cases.

The operational challenge is how to ensure resilience for a world that will be so much more dependent on electricity. Grids and connectors help with resilience of supply when drought limits hydro-electric supplies or nuclear plants are stood down. A growing challenge comes with the violent storms increasingly generated by climate change, requiring thought in the design and protection of networks.

The impact of the work

Whether cables are overground or underground, much of this work will be very public. Its impact on the landscape may court controversy. The construction work, including heavy plant and machinery in often narrow lanes, will have immediate effects on the many farms, woodlands, other properties and business affected and then living with longer term restrictions on land use.

Installing a cable with infrastructure could change the value of the land directly affected and possibly that of other land and property nearby while the construction work might often cause damage and disturbance to the owners and businesses affected, such as loss of crops or trees or poor restoration of drainage. Claims for compensation are likely to arise under national law and need valuations.

The issues, basis of approach and evidence of loss, including effects on market values, are topics for a future article.

Legal frameworks for power lines - The necessary scale and speed of that work also bring the significant challenge of securing the rights over and under the land affected. While EU member states are governed by EU legislation for the internal market in electricity with its framework

for system operators and ensuring openness to investment and competition, securing and using rights to install, upgrade and maintain cables over land or secure sites for substations and other facilities will generally be matters of national law and so vary between countries. This introductory article can only raise likely issues to be considered in each country in its own context.

Existing rights - There are already large networks of transmission and distribution lines, existing under agreements with landowners or resulting from statutory processes. These existing rights may be broad enough to allow the upgrade needed now or the limits in how they are defined may need to be revised to allow more, heavier, or higher voltage cables or new equipment. That will turn on the terms of each agreement and legal right.

Upgrading existing lines within existing rights may see compensation claims for associated damage and disturbance while rent for a site compound might be an income opportunity for an affected owner.

Creating greater capacity in the power lines may facilitate the use of land for renewable generation or other uses.

New rights - It is inevitable that substantial new rights for power lines will be required, either for entirely new lines or where existing rights are not fully adequate for what is needed.

“Installing a cable with infrastructure could change the value of the land directly affected and possibly that of other land and property nearby... Claims for compensation are likely to arise under national law and need valuations.”

It will be a matter of national law as to the basis on which the rights are given or taken and the payments made for them. Care should be taken to understand what rights are being granted, whether as to the capacity and number of cables but also as to future rights of access and to upgrade as well as any additional rights such as for fibre optic communications cables and their use.

New cables across land will bring new restrictions on how that land is used, from limitations on cultivation and tree planting to preventing development.

Sub-stations and other facilities - Where these need to be created or expanded it is likely to rely on access to compulsory purchase powers and compensation provisions, even if matters actually proceed by agreement.

Other power transmission

While our energy transformation is largely about electricity, the transmission of other sources of power needs to be considered.

Heavy machinery, from farms to quarries and construction, with haulage and industrial processes may be better powered by hydrogen than electricity. That hydrogen might be produced using surplus renewable energy but will need to be transported, typically in volume by pipeline. Whether existing gas pipe networks are converted for this or new pipes are laid, this will rely on having the rights to cross the land along the desired route. Existing rights granted for natural gas might not provide for the transmission of hydrogen while hydrogen pipes are likely to require a wider protection zone than natural gas pipes with consequences for land use and development.

Other sources such as geothermal heat and combined heat and power distribution systems may all require rights to cross land owned by people who will not benefit from them, again requiring negotiation and payment.

Finally, the removal of fossil fuels from power generation raises questions about old infrastructure, notably the prospective de-commissioning of much of the gas network with possible issues of liability and cost and valuation. Some might be converted to include hydrogen but more might simply drop out of use.

Practice

Approach – The scale and urgency of this work, much larger than many countries have seen in decades, can make it seem easy for governments with distribution and transmission operators to want to reach for strong powers and ways to minimise compensation. Yet, according to differing national cultures, this can equally easily be the road to frustration, delay and cost by attracting resistance and disputes from those who only feel they will lose from the project.

Compensation for land issues is typically only a small part of the cost of such work, yet failing to get access to land can delay a project for months or years, with costs escalating over that time.

Where such schemes might attract resistance, governments and operators need to act early to explain the case for

the work and may then make more progress with affected landowners by using softer rather than harder approaches with them, even if harder powers are kept in reserve. Good early, practical and reliable liaison between the operator with its contractor and the landowners can manage and resolve many issues before they could become conflicts. It is important to ensure that such liaison retains the confidence of all involved – whether the land is in farming, forestry, leisure or other uses, it is the basis of its owners' property, business and value.

As some differences and disputes can always arise, it needs timely, fair and cost-effective means for resolving them. Where the dispute resolution processes provided by law are formal, taking disproportionate cost and time, informal use of alternatives such as early neutral evaluation, mediation, arbitration and expert determination can achieve practical outcomes. Avoiding entrenched expensive conflict not only eases the immediate situation, saving cost and time, but can help keep better relationships with all the other affected owners and, more widely, the neighbouring communities.

The work in powering our countries for the rest of this century is too important to be done badly at the cost of the people and businesses who will have to live with the work afterwards.

“Compensation – Where possible, this work should not be seen as an adversarial opportunity but is best served by professional valuers, assessing the issues at stake objectively with evidence and records, making and reviewing claims in a reasoned way to achieve the fairest outcome possible under the relevant law.”

Compensation – Where possible, this work should not be seen as an adversarial opportunity but is best served by professional valuers, assessing the issues at stake objectively with evidence and records, making and reviewing claims in a reasoned way to achieve the fairest outcome possible under the relevant law.

It may be that a single power line across open country and causing little disruption if any may have little effect on the value of land. Yet if that line runs across a development site in a way that sterilises potential value, there may be more losses. Multiple lines over land can have a much greater effect in depreciating value.

Property owners nearby, perhaps especially house owners, may feel that a new line affects the value of their properties and, according to the relevant law, could have a claim for compensation.

The physical works of installing cables, especially if laying them underground, can be damaging to crops, pastures and woods as well as land drainage and soil structure. Poor workmanship by contractors can lead to later losses. Records of prior condition and monitoring of contractors can help validate such claims.

Conclusion

This article sketches an outline of the issues to be faced in the largest complex of construction projects Europe will have seen for many decades as we tackle electricity distribution. It will affect many landowners but unlock the full potential for renewable energy generation and enable us to have enough electricity in every home and premises and for economic growth and development, all the while mitigating climate change. For societies and economies now fundamentally dependent on electricity this is a critical task.

The delivery of this work turns on the relationship between a power carrier and the landowners whose land has to be crossed. We need to get that basic relationship over property and with business right. Valuation is at the heart of this.

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Michael MacBrien

EU REAL ESTATE AND VALUATION REGULATION AND CASE LAW

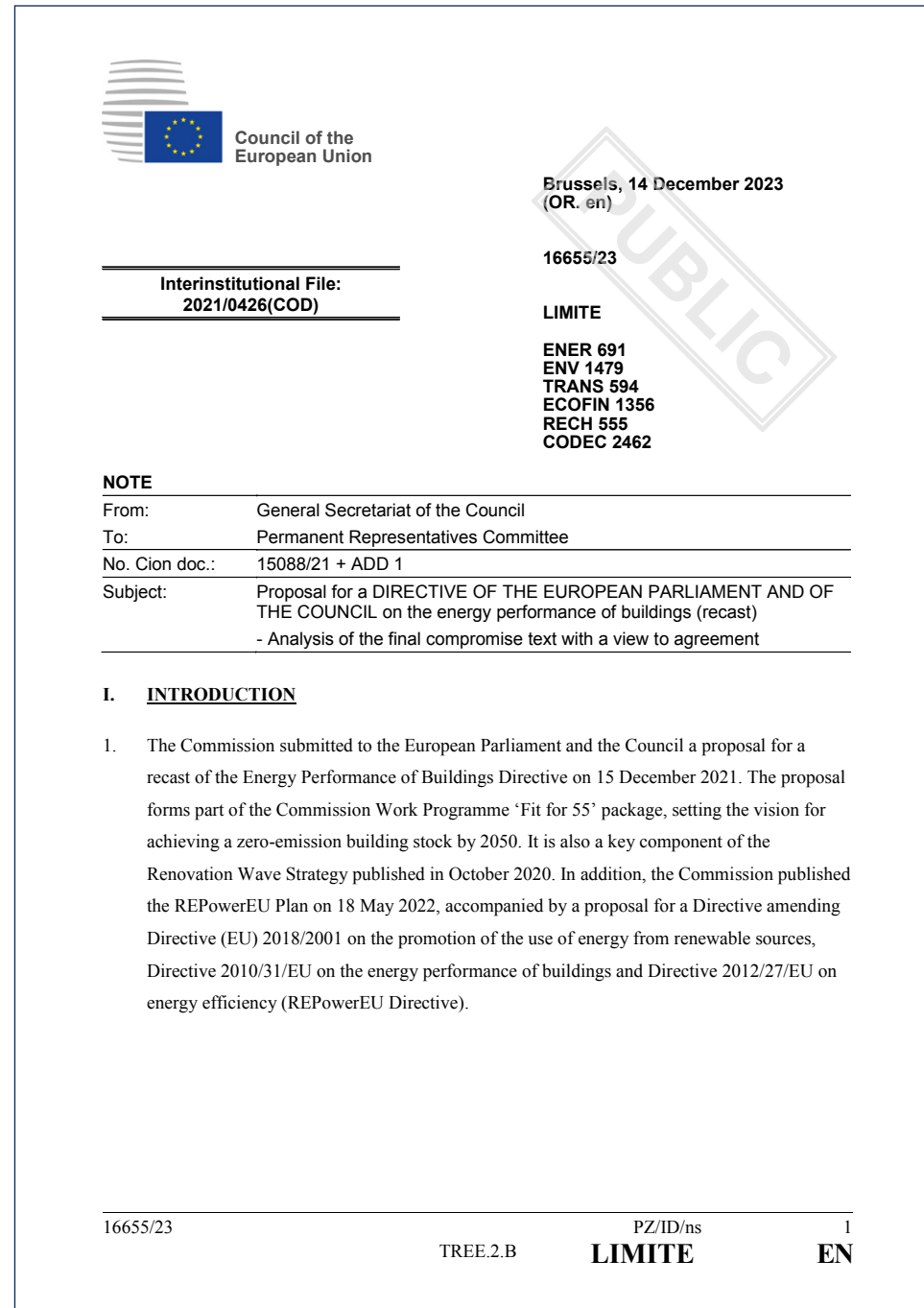
Nikos Sotiriadis, 2002
Contemporary art collection
of the European Parliament
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#07

Energy Performance of Buildings Directive –

Massive certification and renovation of the building stock will transform property markets and valuation

Council and Parliament reached agreement on 7 December. Parliament still needs to vote in plenary, but that's a formality. The text will then go through legal and linguistic toilettage in the 24 EU languages and will then be published in the OJEU, most likely in the second quarter. It will enter into force twenty days after publication and from that date member states will have two years to transpose its provisions into national law.



The Directive has existed in different iterations for over twenty years, yet until now none of its obligations caused a step-change to the rate of renovation, stuck stubbornly at 1-2% of the building stock per annum. The reason was owner sovereignty. None of the renovation obligations kicked in unless and until the owner freely decided to do a major renovation – defined by the Directive as either costing more than 25% of the value of the building or covering more than 25% of the building envelope, according to member state choice. The new Directive requires member states to organise the staged renovation of the building stock whether owners like it or not.

For the non-residential sector, the Directive’s rules will lead to renovating the 16% worst-performing buildings by 2030 and the 26% worst-performing buildings by 2033. For

residential, member states must establish a national trajectory that leads to reducing the average primary energy use of the residential building stock by 16% by 2030 and by a range of 20-22% by 2035.

Compliance by individual buildings with the percentage thresholds will mostly be checked on the basis of energy performance certificates (EPCs).

Each member state must produce a **national building renovation plan** with targets and measurable indicators for 2030, 2040 and 2050 regarding the annual energy renovation rate.

New buildings, which under the existing Directive have had to be near-zero energy since 2021, will have to be zero-emission by 2030 (by 2028 for public buildings).

Solar energy deployment is now required by dates ranging from 2026 to 2029:

- ▶ for all new buildings public and private, non-residential and residential
- ▶ on all new roofed car parks physically adjacent to buildings
- ▶ for existing public buildings over 250m²
- ▶ for existing non-residential buildings over 500m² undergoing major renovation

Member states must introduce a **renovation passport** scheme based on a common framework set out in the Directive. Member states are free to decide whether to impose them on building owners and whether they must be issued jointly with the EPC. If they do so, it will be very useful for valuing energy efficiency impacts because there will be:

- ▶ an optimal sequencing of renovation steps
- ▶ the estimated costs for carrying out each step (unfortunately optional for member state schemes)
- ▶ and the estimated energy performance class of the EPC to be achieved following completion of the step

There are **recharging point and ducting** installation obligations for buildings varying according to building type, but these are likely to be surpassed by events.

The prevalence of EPCs is greatly increased. The existing obligation to issue EPCs when buildings or building units are constructed, sold or rented out to a new tenant is now extended to those that have undergone a major renovation or for which a rental contract is renewed. This will be very helpful for energy efficiency valuation.



#08

CJEU upholds the right of EU citizens to acquire agricultural land in a member state without restriction - Judgment of the Court of 18 January 2024 Case C-562/22

The “Four Freedoms” underpinning the EU internal market are free movement of people, goods, services and capital. The free movement of capital encompasses the freedom of all EU citizens to buy and sell land and buildings, urban and rural, without restriction anywhere in the Union.

Yet it is a politically sensitive issue and many countries have tried to get around it, resulting in myriad judgments of the Court upholding the freedom. When negotiating their accession to the EU, many countries obtained transition periods for secondary residences (usually five years after accession) and for farmland (usually seven years), but all that is now over.

Bulgaria has a law restricting the right to acquire ownership of agricultural land to natural or legal persons who have been resident or established in Bulgaria for more than five years. In a case in which this question arose, the District Court of Burgas, Bulgaria, stayed the proceedings and referred the case to the CJEU.

In its judgment, as always, the European Court states that “a measure such as the national legislation at issue in the main proceedings, which restricts the free movement of capital, is permissible only if it is justified by overriding reasons in the public interest and observes the principle of proportionality, a condition that requires the measure to be appropriate for ensuring the attainment of the legitimate objective which it pursues and not to go beyond what is necessary in order for it to be attained”.

РЕШЕНИЕ НА СЪДА (осми състав)

18 януари 2024 година(*)

„Преюдициално запитване — Член 63 ДФЕС — Свободно движение на капитали — Ограничения — Придобиване на земеделски земи в държава членка — Задължение за приобретателя да е пребивавал повече от пет години“

По дело C-562/22

с предмет преюдициално запитване, отправено на основание член 267 ДФЕС от Районен съд Бургас (България) с акт от 15 август 2022 г., постъпил в Съда на 25 август 2022 г., в рамките на производство по дело

JD

срещу

ОВ,

СЪДЪТ (осми състав),

състоящ се от: N. Piçarra, председател на състава, M. Safjan (докладчик) и M. Gavalec, съдии,

генерален адвокат: N. Emiliou,

секретар: A. Calot Escobar,

предвид изложеното в писмената фаза на производството,

като имат предвид становищата, представени:

– за Европейската комисия, от M. Mataija, G. von Rintelen и Ив. Залогин, в качеството на представители,

предвид решението, взето след изслушване на генералния адвокат, делото да бъде разгледано без представяне на заключение,

постанови настоящото

Решение

- 1 Преюдициалното запитване се отнася до тълкуването на членове 18, 49, 63 и 345 ДФЕС и на член 45 от Хартата на основните права на Европейския съюз.
- 2 Запитването е отправено в рамките на спор между JD, австрийски гражданин, и ОВ, български гражданин, по повод на иск за установяване на нищожността като привидни на договори за придобиване на земеделски земи в България.

When the European Court asked the referring court for information on the objectives pursued by the law, the referring court stated that the law “seeks to ensure that that agricultural land continues to be used in accordance with its purpose”, the motivation being that speculative transactions relating to such agricultural land and the sale of that land to foreign investors who intend to use the land for other purposes, would lead to a significant reduction in arable land, together with the corresponding disappearance of large and small Bulgarian agricultural producers.

The CJEU judged that the residence requirement in the Bulgarian law constitutes an infringement of EU law on free movement of capital as it goes beyond what is necessary to attain the objectives pursued by that legislation because the objectives could have been pursued in manners less harmful to European free movement of capital:

“As the Commission pointed out in its written observations, the objectives pursued by the legislation at issue in the main proceedings relating, first, to agricultural land continuing to be used in accordance with its purpose and, second, to the prevention of the acquisition of such land for speculative purposes could be attained through the use of measures introducing, inter alia, higher taxation on resale of agricultural land occurring shortly after acquisition, or even the requirement of a substantial minimum duration for leases of agricultural land... Another measure that is less restrictive of the free movement of capital is the introduction of a right of first refusal to farming tenants, which would make it possible, where the latter do not acquire the property, for title to be acquired by natural or legal persons whose activity does not fall within the agricultural sector, but who must nevertheless maintain the agricultural use of the property in question.”



To contribute an article or to send
a letter to the editor commenting on one,
contact info@tegova.org

Editor: Michael MacBrien

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