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VALUATION SCHOOLS AND THE EVOLUTION OF THE INCOME APPROACH. AN EVALUATION OF CHANGE TRENDS

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Abstract

The income approach is the subject of debates conducted by academics and practitioners as one of the most controversial approaches in valuation practice. It is also somewhat differently understood by the three historically shaped valuation schools (US, British and German). This article compares the main assumptions underpinning the income approach's investment method between the three schools in order to: 1) determine why the assumptions change and in what direction; 2) assess the advantages and disadvantages of explicit cash flows; and 3) evaluate the advisability of incorporating explicit cash flows into Polish valuation methodology. A thesis is formulated that, in Poland, the investment method should use implicit cash flows for estimating the market value of properties. There is a need to include explicit cash flow in university programs, but their use should be limited to valuations undertaken to determine the investment value of a property or the market value of portfolio properties, as well as valuations carried out for the purposes of financial reporting as required by EU legislation (MSSF 13 and MSR 40).

The article was prepared based on the review and analysis of the relevant literature.

Key words: *real property valuation, valuation standards, income approach.*

JEL Classification: *D46, R30, R33.*

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1. Introduction

The concept of real property valuation is embedded in economic theories (see, for instance, MILLER, MATKOSYAN 2003). However, despite the common economic origin of valuation methodologies, countries have developed different visions of them, because of different application of economic concepts surrounding property valuations caused by country-specific legal and political systems, customs, and social, cultural and psychological determinants. Other contributing factors to the emergence of dissimilar valuation methodologies include differences in: rights to real estate, the level of protection given to them, contract durations, rent review schemes, the intensity of state interventionism, the transparency of domestic property markets, the model of valuation education and valuers' professional skills. As a result, a mosaic of national valuation methodologies has been created (ADAIR et al. 1996). Vandell called referred to the process leading to the diversity of valuation methodologies as a dispersed process (VANDELL 2007). The distinctiveness of valuation methodologies reveals itself not only in valuation details, but also through the terminology and classification of valuation methods, and the approach to defining and interpreting fundamental terms such as market value.

While the concept of property valuation was taking shape, three different perspectives on valuation emerged. These are known as the American, British and German schools, because other countries found their solutions effective and modeled their national methodologies after them. A master-disciple relationship was thus formed, resembling that between a painter and his apprentices.

2. The rationale for the research. Aims and methods

This analysis was inspired by the efforts of the Polish Federation of Valuers' Associations (PFVA) to develop a professional standard for the income approach replacing the interpretative guideline "The Income Approach For Real Estate Valuation" that the PFVA adopted in 2008. The idea to create the standard came up as the PFVA realized that the guideline contrasted with the knowledge and experience of valuers working for international organizations. With the inflow of foreign investors to Poland, it became necessary to create a valuation methodology they could understand, as well as consistent with the international valuation practice they were familiar with (MALMON 2018).

The following analysis has three aims 1) to present the classical assumptions of the income approach from the perspective of each of the three valuation schools, 2) to determine why the assumptions change and the directions in their evolution, and 3) to assess the advisability of explicit cash flows being included in Polish valuation methodology and of the effects of their use. The analysis is based on a review of the relevant literature, and its focus is on the investment method which is to undergo the most radical change in Poland.

3. Valuation schools – how similar, how different

Comparative studies of countries' valuation methodologies are rarely undertaken, probably because they require a great deal of knowledge about the assumptions underlying valuations and the interpretation of valuation regulations including lease laws, tax laws and area measurement rules that altogether comprise the functional culture of a country's real estate market. However, advancing globalization has made such studies inevitable (NOVELLI, PROCTER 1992; VOGEL 1994).

Let us note that valuations are strongly embedded in historical and cultural contexts of nations, so comparing valuation schools is quite a problem for an outsider. The following catalogue of similarities and differences between them should be viewed as representing the author's opinion.

A common feature of the US, British and German valuation schools is that all of them accept A. Marshall's division of valuation approaches into three concepts (MARSHALL 1925), which he referred to as a comparative concept, an income concept, and a replacement cost concept. They are also similar in that all of them have exerted a significant influence on valuation methodologies in other countries.

Other than that, the US, British and German valuation schools are unalike rather than similar (HOPFER et al. 1999, KUCHARSKA- STASIAK 2015). While the valuation assumptions developed by US and British schools are relatively similar, although not identical (NOVELLI, PROCTER 1992), both schools are quite different in that respect from the German school (LORENZ 2006).

The reason for the three schools having developed different valuation methodologies should be attributed to the dissimilarity of legislative systems in the USA, UK and Germany (different rights of possession, tax systems, etc.), differences in the level of economic development and in the terms and conditions of lease contracts (e.g. different durations)[1]. The valuation terminology the schools use is also different (in the US and Germany valuers apply "valuation approaches", and British valuers use "valuation methods"), likewise - the number of approaches used in a valuation to arrive at a property's value (three in the US, two in Germany and one in the UK), the use of valuation approaches (in the UK, with the cost approach (also known as the depreciated replacement costs method) transacted properties are rarely appraised; in Germany it is the main approach and in the US it is considered auxiliary).

Another factor differentiating the three schools is their approach to accounting for land and buildings: the cost approach is the only one where the cost of land and the replacement cost of the buildings are separately presented by all schools; German valuers appraise both items separately regardless of the valuation approach they use (LORENTZ 2006).

The consequence of each school having its valuation methodology is that they can come up with a

[1] In the UK, most leases have a rent review clause requiring that the level of rent be reviewed and increased for the second half of the lease contract (the principle of "upwards-only" rent reviews).

different value of the same property appraised at the same time and for the same purpose[2].

4. Assumptions underpinning the income approach in the classical valuation schools

Differences in valuation methodologies adopted by the US, British and German valuation schools are especially noticeable in the case of income. Their main source is different rules the schools use to account for the impacts of the property market. The requirement that a property's value be valid at the valuation date suggests that the property market should be treated as a static system. This interpretation seems to be supported by several economic principles of valuation: the principle of internal balance (requiring the ratio between the value of land and the value of buildings to be taken into account), the principle of substitution (a buyer should not pay for a property more than the price of a comparable property), or the principle of conformity (maximum value generally results when a property is in harmony with surrounding properties[3]).

In real life, however, markets are dynamic systems. Literature provides three laws explaining market dynamics: 1) markets change because of differences between supply and demand; 2) the pace at which markets change is proportional to the magnitude of the differences (e.g. the more demand exceeds supply, the faster prices will move towards equilibrium); and 3) there is a turning point where demand and supply reach equilibrium (BRADLEY 1990). The need for valuations to account for market changes also seems to arise from valuation principles of anticipation, change and competition.

It is widely believed that it is the US valuation school that gives the fullest picture of the real estate market in valuations. According to US valuers, neither a property's cash flow nor the real estate market are ever constant. This approach has led to the widespread use of the discounted cash flows technique with explicit cash flows instead of a simple capitalization technique (see p. 4.1). The classical British valuation school holds that market changes influence the probability of achieving income from a property rather than income itself. Consequently, British valuers use traditional valuation techniques: a simple capitalization technique and a discounted cash flows technique which assumes that cash flows vary in time because of the lease contract provisions (p. 4.2.). The German school views the real estate market as a static system and rejects the DCF technique (p. 4.3.).

4.1. Assumptions of the income approach according to the US valuation school

US valuers use the income approach together with two other approaches (three per valuation) to arrive at a property's value (WILLIAMS, VENTOLO 1984). Having produced three estimates of a property's value, they pick the one that fits best the purpose of the valuation. The other two are used for testing and confirming the validity of the first one (REAL ESTATE VALUATION… 2011).

The US valuation school appraises a right to income from a property that, in the case of a freehold estate, goes on in perpetuity. The income approach is based on the broadly interpreted principle of anticipation: a property's value is a today's value of income it is anticipated to generate in the future. A reliable estimation of future income from a property requires a good understanding of the market dynamics and of the subject property's position vis-à-vis comparable assets (REAL ESTATE VALUATION… 2011).

In the USA, valuations exclusively based on historical market data are considered inappropriate. Working on the assumption that the market never achieves equilibrium, US valuers rarely use the simple capitalization method, preferring the DCF technique with explicit cash flows. Cash flow changes reflect income increases and decreases forecasted from market movements, meaning that, after a fixed-term lease contract expires, the rent is not set to the level of market rent on the valuation date but is adjusted to the anticipated level of rent rates.

In the DCF technique, a return on investment consists of a cash flow obtained in the forecast period and capital returned at the end of the investment period, representing an actual or hypothetical sale of the subject property at the end of the forecast period. It is assumed that income changes in the forecast period and afterwards. The source of changes is the property itself as well as the anticipated fluctuations in the market arising from the interplay between supply and demand. Hence, to find the

[2] Different values are also likely to be produced for a property valued for the same purpose using the same method. Such differences are due to the uncertainty of a single valuation, which is an inherent feature of the valuation estimation process.

[3] The economic principles of valuation are well explained in US literature (WYCENA NIERUCHOMOŚCI…2000),

residual value, different values of the discount rate and the capitalization rate are used (NOVELLI, PROKTER 1992, p. 251), according to the following relationship[4]:

$$R = r - g \tag{1}$$

where:
R – a capitalization rate,
R – a discount rate,
g – a parameter representing income or property's value growth.

When the cash flow from a property or its value goes up, the capitalization rate decreases because of a declining risk of investing in real estate. The value of the property will increase.

However, as cash flow or property's value declines, the capitalization rate increases because:

$$R = r + g. \tag{2}$$

An increase in the capitalization rate means a decline in the property's value.

The capitalization rate and the discount rate would only be the same in a balanced market, because the value of "g" is then zero.

Hence, the US school, assuming that the market keeps fluctuating, determines the residual value (RV) from the following formula:

$$RV = Dn\,1/R \tag{3}$$

Because in discounting the residual value the capitalization rate and the discount rate are always different, the residual value is calculated in two steps: first, last year's income is capitalized at a rate R, and then the result is discounted at a discount rate different from the capitalization rate.

As well as having to analyze the subject property and the real estate market as on the valuation date, US valuers are also required to simulate changes in the macro- and meso conditions, and to assess their likely effect on changes in income from the property. The results of the analyses are uncertain not only because of non-systemic risks (i.e. specific to the property being appraised) but also due to systemic risks arising from economic fluctuations.

4.2. Assumptions of the income approach according to the British valuation school

The British model of valuation has a long tradition and enjoys strong support from the RICS, the largest and most prominent professional organization in the real estate market established in 1883. British valuers that do not use the notion of a valuation approach have adopted five valuation methods: a comparative method that is primarily used to estimate the value of residential and undeveloped properties; the income method (a profits method in Poland) for determining the value of properties with an operator (a cinema or a hotel); an investment method falling between the comparative method and the income method that is intended for investment properties; a cost method for properties for which neither the lease market data nor the transaction data are available; the residual method for properties to be (re)developed. When a property's value depends on its capacity to generate income, the right to income is estimated, which, in the case of freehold estate, goes on in perpetuity. Income-generating properties are valued using one of the three models of income: a model with income constant in perpetuity, a model with income variations resulting from lease contract provisions and rent review schemes, and a DCF model.

Valuers using the traditional capitalization model (with constant income) determine the initial rate of return (IRR) known as all-risk yield from market transactions with comparable properties and then arbitrarily adjust its value to account for differences between the subject property and the other properties used for comparison (FRENCH 2006, p. 88). The model needs a sufficient number of market transactions to be used. If rent rates exhibit fluctuations, the capitalization rate must reflect the market's expectations of increases in rent or property values, which are represented through the rate of return. The anticipated increase in a market rent rate is compensated for by a lower rate of return.

The second most popular model (with income variations resulting from lease contract provisions and rent review schemes) has three variants known as "term and reversion", "core and top-slice" and "equivalent yield" (ADAIR et al. 2013). They are similar in that they can be used to value properties

[4] The relationship is given by Gordon's formula.

regardless of whether market rents are rising or falling, and that, after the lease period, they assume a cash flow at the market level on the valuation date. Therefore, according to the classical assumptions of the British school, the market is but a background and its fluctuations do not have a direct effect on income but affect the probability of achieving a level of income assumed in the valuation.

Depending on the variant, a cash flow from a property is divided vertically (term and reversion) or horizontally (core and top-slice and equivalent yield). The "term and reversion" and "core and top slice" variants use different rates of return to capitalize income, and the "equivalent yield" variant uses the same rate of return for both term and reversion, but its value is above the market level.

According to a survey conducted in the 1980s, the term and reversion variant was used by 53% of valuers practicing in the UK and accounted for 30% of valuations. In valuations involving large properties, the equivalent yield approach was usually applied (ADAIR et al. 2013, tab.16.3).

The application of different rates of return for term and for reversion, as well as for the core and the top slice is frequently criticized for the arbitrary assumption that the rates are different by 1 or 2%. It has also been observed that income in the period with a lower rate of return tends to be overestimated (ADAIR et al. 2013).

As far as the third (DCF) model is concerned, the classical British school assumes that, in the forecast period, a cash flow should change with the property and then stabilize at a level from the last year of the forecast period.

Because the assumption about cash flow stabilizing after the forecast period effectively means that the capitalization rate and the discount rate are equal (g=0), British valuers use a one-step procedure to determine the residual value.

Neil Crosby reported that the DCF model was not very popular with UK valuers (ADAIR et al. 2013, ch. 16) and attracted more interest from theoreticians than from practitioners. In valuation practice it was mainly accepted by large institutions and organizations holding real estate, as well as by major consulting firms (ADAIR et al. 2013, ch. 16).

4.3 Assumptions of the income approach according to the German valuation school

The German valuation school defines market value as the average market price that valuers estimate from data prepared by experts based on the Database of Buy-and-Sale Prices. The notion of "highest and best use" is not used (VOGEL 1994) and the real estate market is deemed a static system. The income approach uses only the simple capitalization technique (IBIDEM). The DCF technique is employed at the stage of assessing the economic efficiency of investing in real estate.

The different use of the income approach by German valuers is well illustrated by the fact that the income generated by a property is separately estimated for the land and building because of their different durability. Only the latter income is capitalized, and only for the remaining period of the building's economic life. The final value of a property is represented by the value of land plus the income value of the building. Accordingly, German valuers estimate the economic stability of income from a property rather than the right to that income. Income is assumed to be stable in time. If a property is encumbered by a fixed-term tenancy contract with rent rates different from those paid in the market, valuers use market rates in calculations because of the contract's temporary nature. Research has shown that in estimating the remainder of a building's economic life, German valuers prefer using standard values to actual market information about the effect of the property's location or the phase of the business cycle (VOGEL 1994).

5. Evolution of the income approach and valuation methodology – the British school[5]

The evolution of the classical schools' valuation concepts has influenced the definition and interpretation of the market value and the creation of new valuation methods and techniques, as well as leading to the redefinition of the existing ones. The market value that the US school initially understood as equivalent to the highest price in 1953 was replaced by "the most probable market price" and "best and highest use" by "the most probable use". The widespread practice of using three valuation approaches to arrive at a property's value was modified by reducing their number to two (RATTERMANN 2009). Although hesitantly, British valuers abandoned the replacement value, having concluded, as the US valuers had already done, that the cost approach was also capable of producing

[5] For the evolution of real property valuation in the US school see Miller, Markosyan 2003.

a market value. They also introduced the notion of "hope value" and, the well-developed and understood in the USA notion of "highest and best use".

The ongoing evolution of the historically shaped valuation methodologies has had a special effect on the income approach, which is considered the most controversial. The conservative German school has also changed, allowing the use of the DCF technique. It is used in valuations for foreign investors (REAL ESTATE VALUATION… 2011). In the USA, the suggestions that valuations take account of market changes have gone as far as proposing that the impact of economic cycles and property market cycles on income generated by properties be presented in valuations (BORN, PYHRR 1994, pp. 455-485; PYHRR et al. 1996). Proponents of the change argue that the results of valuations that only use market trends are encumbered by systemic errors: they tend to be underestimated in the early economic recovery period, and underestimated as the property market cycle nears or reaches its peak. A cause of systemic errors are attempts to present complex economic phenomena through simplistic models (BORN, PYHRR 1994). Because a property's holding period of 7-10 years usually coincides with ca. one-third to one and one-fourth of an economic cycle, considerable differences can be expected between data obtained by extrapolating the trend and results allowing for the phase of the economic cycle (IBIDEM). The concept of presenting the effect of economic cycles on values of properties is, however, gaining in popularity (see, e.g., D'AMATO 2017, 2018).

There are a number of factors that drive the evolution of valuation methodologies, the most important of which are changes in real estate markets involving, for instance, changes in ownership structure and in the stream of capital flowing to real estate. It is notable that, in the UK, a decline in capital allocations to real property between 1990 and 1993 reduced lease durations thus necessitating changes in valuation procedures (ADAIR et al. 1996). An important role in redefining **British** valuation was played by theoreticians, most of whom represented the academic community. For instance, spurred by criticism against the variants of the investment method, theoreticians created alternative valuation models (ADAIR et al. 1996) including an explicit growth model. Its most popular application is known as the short-cut DCF.

According to literature on the income approach methodology, before 1990, traditional valuation were only fine-tuned in the UK to make sure that they followed changes in the market conditions, including lease durations. The computational core of the investment method remained unchanged.

Nevertheless, the weaknesses of the traditional valuation model did not go unnoticed: the core and slice model requires, for instance, that the probability of achieving the assumed income be assessed twice: when determining the capitalization rate for the top slice and for the core. Many theoreticians and valuation users in the UK concluded that the variants of the investment method taking account of the present state of the market, i.e. using implicit cash flows, were a simplified mechanism of valuation, because rather than directly showing the anticipated annual increases in income, they presented them indirectly through rates of return. In spite of valuation methodology specialists maintaining that implicit cash flows could produce good estimates of market value (FRENCH 2006, p.88) interest in growth explicit cash flows was increasing as it was observed that they could consolidate and strengthen the DCF model (FRENCH 2006, pp. 87-91). In the first half of the 1990s, the proposals to include explicit cash flows in valuations became more frequent. An important impulse for the modification of valuation procedures and practices was the 1994 Mallinson Report commissioned by the RICS. Its authors recommended creating new valuation methods to replace methods based on the capitalization rate (R). They did not disqualify the traditional valuation techniques but focused on exposing their weaknesses (THE MALLINSON… 1994). This opened the doors to the DCF model, the use of which was additionally facilitated by relatively readily available market data and the economic profile of the valuers' education.

In its information, materials released in 1997, RICS concluded that the development of the DCF technique with explicit cash flows and specific assumptions about future rent growth, lease duration, depreciation, repairs, improvements, redevelopment, and management costs was driven by the need to ensure "greater transparency" of valuations (COMMERCIAL INVESTMENT… 1997). However, RICS did not find the technique superior, because explicit cash flows can produce identical estimates to those obtainable with implicit cash flows. Moreover, they carry a new risk: it is very difficult to predict how the real estate market fluctuations will affect properties' values because they can influence properties located in two parts of a city differently (COMMERCIAL INVESTMENT… 1997, p. 7.2.2.). RICS also observed that a larger number of assumptions increase the risk of valuations producing diverse results (IBIDEM p. 7.3.1.).

Despite their shortcomings, explicit cash flows were included in the UK in teaching programs for valuers – a clear sign of the influence of the US valuation school.

Yet, with all the criticism of implicit cash flows voiced by academics and valuation users (including institutional investors and investment advisors), and in spite of price fluctuations in real estate markets, explicit cash flows were not commonly included in valuation methodology (HENNEBERRY, CROSBY 2015, p. 7). The use of market forecasts in valuations met with strong opposition from British valuers **who argued that they lacked the skills necessary to evaluate future market events and that greater accuracy of valuations using implicit cash flows compensated for their theoretical shortcomings (HENNEBERRY, CROSBY 2015). Their position was supported by the RICS (HENNEBERRY, CROSBY 2015)**.

A survey conducted by N. French in 1995 showed that almost all valuers **in the UK** (95%) used implicit cash flows, and only 5% used both implicit and explicit cash flows (HENNEBERRY, CROSBY 2015, p.9). Prof. D. Mackmin who attended the 2006 Valuers' Conference in Warsaw advised against using explicit cash flows, stating a simple calculation of income or of the discounted value of future cash flows based on current market data continued to be the most transparent approach (MACKMIN 2006). He also observed that, in an imperfect market, he would rather avoid solutions that are too complicated to use (IBIDEM).

The discussion on the benefits of explicit cash flows resumed during the crisis years (2007-2008) because of the scarcity of the market data. As the data crisis proved short-lived, valuers successfully defended, again, the traditional variants of the investment method as a means of estimating the market value. Today, explicit cash flows are used in the UK to determine the investment value of properties (HENNEBERRY, CROSBY 2015, p. 14, REAL ESTATE VALUATION in… 2011). Therefore, although explicit cash flows have been included in valuation courses, the traditional approach still predominates in valuation practice. According to Honeyberry and Crosby, the situation will not change as long as the British real estate market provides sufficient amounts of good quality data for comparisons (HENNEBERRY, CROSBY 2015, p. 14).

The main points of the foregoing discussion can be summed up as follows:

- the expectations of investors focused on the target rates of return, of investment advisers and of some academics caused implicit cash flows to be criticized in favor of explicit cash flows. As a result, the latter were included in teaching programs for valuers,
- valuers' resistance has made it so, despite pressure from some valuation users and despite explicit cash flows being taught at universities, it is still implicit cash flows that are mainly used in valuations in the UK. This shows that valuation practice takes time to change and that the community of valuers is inherently conservative,
- the widespread use of implicit cash flows in the UK is related to valuers' familiarity with traditional valuation concepts and to their belief that implicit cash flows produce more accurate numbers. It is assumed that, because implicit cash flows need fewer input data, they are less uncertain than explicit cash flows,
- the pressure on valuers to use explicit cash flows will grow as investors' increasingly expect estimations of property values to reflect the effect of future market trends. Rising values of investment projects, globalization and inflation may also contribute to the wider use of explicit cash flows (SCARRETT 1991, p. 141),
- with the acceptance of explicit cash flows, the concept of market value moves closer to investment value; consequently, the concept of market value stops seeking to objectify the behaviors of market participants.

6. Evolution of the income approach methodology in Poland

The methodology of the income approach adopted by Polish valuers consists of two methods: an investment method, where a property's income is determined based on rents from leases and other rights, and a profits method, which uses the part of the income that is transferred by the operator using the property for their business. The first property valuation standard based on the income approach (standard III.6) was worked out and approved by the community of Polish property valuers in 1998 in a stormy atmosphere, because its authors presented a variety of perspectives on how the investment method and the profits method should be used to determine a property's income. Some proposed using the same method which was applied to value enterprises, while others advocated deducting depreciation, income tax and the cost of major repairs and modernization works. The final version of the standard was based on the traditional British concept of the income approach. Disputes among Polish valuers prompted the PFVA to seek advice on the standard's content from Prof. David Mackmin from the Sheffield Hallam University, a co-author of a popular in **Britain** textbook on the income approach in property valuation. Professor Mackmin's remarks on the structure and substance of the standard were published in Rzeczoznawca Majątkowy (UWAGI… 1999). Their main focus was on the interpretation of the capitalization ratio, the rate of capitalization**,** the discount rate, and on the manner of selecting properties for comparisons. The overall shape of the standard was not questioned. Unfortunately, the community of Polish valuers was not willing at that time to revisit the standard. It was only ten years later, in 2008, that an interpretative guideline on valuations using the income approach[6] was adopted. It drew on Prof. D. Mackmin's comments and followed the general framework of the existing standard. The valuation methodology it recommended used traditional solutions (including implicit cash flows) while taking account of the phase in the development of the real estate market in Poland and of the level of education of Polish valuers.

The income approach is rarely used in valuation practice in Poland. As many valuers do not understand how it works, they frequently make errors in estimating the market level of rents by omitting typical rent rates, or determine the level of operating expenses based on the property-specific data instead of using the market data. They also have a problem with understanding and deriving appropriate rates of return.

In 2018, the PFVA drafted a new concept of the income approach which again was called "a standard". As well as fine-tuning some provisions of the guideline, the standard also introduced significant, almost revolutionary changes. The most important of them is the adoption of two main types of cash flow forecasts, one for implicit cash flows that change between the forecast years as the property changes (the influence of the property market is ignored), and another for explicit cash flows which are assumed to change with the property and the property market, the fluctuations of which influence rent rates, occupancy rates and operating expenses (PROJEKT STANDARD… 2018).

The use of explicit cash flows for estimating a property's market value involves analyzing the state of the property market on the valuation date and forecasting the effects of supply and demand variations on rent rates, vacancy rates and operating expenses. In the traditional income approach, demand is estimated *ex-post*, i.e. based on historical data, albeit demand is in fact an *ex-ante* category. In the case of explicit cash flows, market forecasts (*ex-ante* analyses) are necessary. Unfortunately, valuers do not have a crystal ball from which they could exactly foretell the course of market events (FRIEDMAN, ORDWAY 1992, ch.8). It is indicated that estimating future cash flows from a property can be a problem because their level strongly depends on systematic risk determined by macro (BORK, MØLLER 2018) and meso circumstances, which are much less predictable than the risks specific to a property (e.g. the principal tenant going bankrupt or unfavorable changes in the vicinity of the property) (IBIDEM, ch. 8).

Because the demand for commercial properties is a function of the demand for goods and services that can be delivered through them, a market analysis should also involve the forecasting of changes in industries. A larger number of variables would impair the objectivity of valuation data, as well as contributing to bigger differences between valuation results and consequently undermining the credibility of the valuation profession that the Polish Constitutional Tribunal acknowledged in its ruling of 2 Dec. 2002 as a profession of public trust.

7. Potential directions of changes

Because national valuation methodologies are based on agreements worked out by communities of valuers and confirmed in professional norms, they naturally differ between countries. Aware of the differences, the International Standards Council and TEGoVA made efforts to standardize the interpretation of notions such as market value, income and cost, but failed to achieve full harmonization of valuation methodologies.

As globalization moves on, the harmonization of valuation methodologies is likely to be increasingly driven by the upward diffusion of national valuation methodologies through international cooperation of property valuers. Nevertheless, it should be expected that some

[6] The change from "a standard" to "a guildeline" was determined by the legal requirements; according to the law in force, standards had to be agreed upon with the competent minstry.

differences in valuation theory and practice will not go away, always hindering the global harmonization of valuation standards, because national real estate markets will continue to differ in institutional frameworks, activity, transparency, culture, and the content of education for property valuers (SAYCE, CONNELLAN 2003). Another obstacle to harmonization can be the valuers' tendency to individually interpret the national methodology of valuation. Individual preferences as to the manner of carrying out valuations are firmly rooted and even large organizations allow valuers considerable freedom in using valuation methods (SCARRETT 1991, p. 117).

The foregoing leads to the following conclusions:

- because explicit cash flows are criticized for potentially increasing valuation uncertainty and for being inappropriate given the present state of the real estate market in Poland and the education of Polish valuers that, unlike the education of US and UK valuers, lacks the economic perspective, it is advisable that Polish valuers use an income approach based on implicit cash flows. Polish valuers strongly oppose the use of explicit cash flows which could be seen during the National Conference of Property Valuers in Sopot in September 2018;
- regardless of how the standard proposed by the PFVA will be used in the future, teaching programs for valuers should be redefined so that both students who wish to enter the profession and practicing valuers can benefit from them. Postgraduate courses in property valuation should present different concepts including explicit cash flows and strongly emphasize practical skills.
- the explicit cash flows technique should be dedicated to estimating the investment value;
- explicit cash flows could potentially also be used in valuations addressing clients' specific needs, like those made for financial reporting purposes under the European law (MSSF 13 and MSR 40) or for mortgage banks which require the so-called bank-mortgage value of a collateral property to be determined. Following the US example, where the use of explicit cash flows was imposed by investment advisors, their applicability to valuations of portfolio properties located in different geographical regions could also be considered[7]. These types of valuations should be regulated by a separate professional standard;
- there is a need to redefine notions which are differently understood and interpreted thus causing variations in how valuations are carried out and between their results. For instance, while all valuation approaches use the principle of anticipation (THE REAL ESTATE APPRAISAL 2013), the income approach and the comparative approach interpret it differently, similarly to valuers in different countries. The income approach defines a market value as today's value of the anticipated income. US valuers argue that the income cannot be reliably estimated without the full understanding of market dynamics and unless the subject property is compared with its competitors (REAL ESTATE VALUATION 2011). In the UK, changes which may occur in the property during the forecast period are represented in the traditional DCF model through rent rates valid on the valuation date. In both the UK and the USA, the comparative approach uses transactions recently concluded in the real estate market to represent investors' expectations about the future;
- there is an apparent need to revise the interpretative provisions of the IVS and EVS because, rather than facilitating an unambiguous interpretation of the principle of anticipation, they obscure its interpretation. A relevant example is the interpretation of the following elements of the definition of the market value:

  "on the valuation date" means that a market value should be valid on that date. The number presented in the valuation report is to reflect the state of the market and circumstances as of the effective valuation date, not as of either a past or future date" (IVS 2011, p. 34, EVS 2016, p. 29),

  -"[parties had] acted knowledgably, prudently"- prudence is assessed by referring to the state of the market at the date of valuation (IVS 2011, p. 35, EVS 2016, p. 32).

Both elements indicate that the implicit cash flows technique should be applied.

Overall, a valuation should reflect the behaviors of the market players, but how it is done may vary between the communities of valuers as a result of different agreements they reach. All agreements should, however, be worked out bearing in mind that they will have a long-term impact on valuation

[7] In addition to geographical diversification, there are also diversification by type and economic diversification (Lee 2016).

outcomes and on the professional prestige and civil and criminal liability of valuers. Mark R. Rattermann, the author of the fundamental US textbook on real estate valuation, observed that valuers making forecasts, especially DCF analyses, present their predictions of the future differently, which translates into different results of valuations (RATTERMANN ch. 24).

8. Conclusion

Valuation methodologies differ markedly between countries because they are based on agreements worked out by national valuation organizations. The foregoing analysis has shown that not only are the assumptions underlying the income approach different between the classical valuation schools but that they also evolve in time. One important effect of this evolution is the increasingly wide use of the US concept of valuation which is considered to give the fullest picture of the market including future changes in supply and demand.

The criticism against valuations taking account of future changes in the market, the state of the real estate market, and the model of valuation education lead to the conclusion that the standard of valuation for Polish clients should recommend using implicit cash flows as the most appropriate for local market conditions. Explicit cash flows can potentially be used to determine the investment value of properties, or for the purposes of property portfolio valuations or financial reporting based on a standard established specifically for these uses.

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