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**Valuation type and method, Calculations,
Valuation subject value**

PROPERTY MARKET VALUE

The property market value is determined according to Article 151 of the Real Estate Management Act:

*"The estimated amount for which the property should exchange on the date of valuation between a willing buyer and a willing seller **acting independently of each other** after proper marketing wherein the parties had each acted knowledgeably, prudently and without being under compulsion.,,*

Szacunkowa kwota, jaką w dniu wyceny można uzyskać za nieruchomość w transakcji sprzedaży zawieranej na warunkach rynkowych pomiędzy kupującym a sprzedającym, którzy mają stanowczy zamiar zawarcia umowy, działają z rozeznanie i postępują rozważnie oraz nie znajdują się w sytuacji przymusowej.

“the estimated amount for which a property should exchange on the date of valuation between a willing buyer and a willing seller **in an arm’s length transaction** after proper marketing wherein the parties had each acted knowledgeably, prudently and without compulsion.” RICS

in an arm’s length transaction = w transakcji na warunkach rynkowych

Market Value ignores any existing mortgage, debenture or other charge over the property.

Individual Task www.quizbrary.com Lesson 7, Task 1 - RICS red book definitions of market value

**APPROACHES (PODEJŚCIA)
METHODS (METODY)
TECHNIQUES (TECHNIKI)**

- 1. THE COMPARATIVE APPROACH – podejście porównawcze**
- 2. THE INCOME APPROACH – podejście dochodowe**
- 3. THE COST APPROACH**
- 4. THE MIXED APPROACH – podejście mieszane**

THE COMPARATIVE APPROACH – MARKET VALUE

The comparative approach is a way of determining the value of the property on the assumption that the value corresponds to the prices obtained for similar properties that have been traded on the market. These prices are adjusted/corrected for the features/attributes that differentiate similar properties from the property being valued and account is taken of changes in the price level due to the passage of time.

Sales Comparison Approach - Canada

Comparable method - UK

Three methods are distinguished in the comparative approach:

- **pairwise comparison** – porównanie parami *In the case of the pairwise comparison method, a property which is the object of the valuation procedure and whose features are known is compared with properties which have been the object of market transactions and whose features, transaction prices and transaction conditions are known.*
- **average price correction** – korygowanie ceny średniej - *Mean price correction method defines value based on average prices observed in the real property market.*
- **statistical analysis of the market** – analiza statystyczna rynku - *The statistical market analysis method adopts a set of transaction prices appropriate for determining the value of representative properties The value of the property shall be determined using the methods used for statistical analyses.*
- Individual task www.quizbrary.com Lesson 7, Task 2 listening on sales comparison approach <https://youtu.be/EcxNBdEKxbM>

THE INCOME APPROACH – MARKET VALUE

- **The income approach** determines the estimate value of a property on the potential income the property can generate. To apply the income approach, the property being appraised must be of a type that is commonly bought and sold based on its income stream (przychód brutto).
- **Two methods:**
 - investment **method** – metoda inwestycyjna
 - profits **method** – metoda zysków
- **Two techniques:**
 - Discounted cash flow – technika dyskontowania strumieni dochodów
 - Direct capitalisation – technika kapitalizacji prostej
- Profits method UK
- Investment method UK
- Income capitalization approach Canada/Usa/India

THE COST APPROACH – replacement value/cost

The cost approach assumes that the property is worth as much as the cost of its reconstruction/replacement, taking into account the current degree of its depreciation.

- **Two methods:**

- The replacement cost method – metoda kosztów zastąpienia
- the replacement value/reconstruction method – metoda kosztów odtworzenia

Three techniques:

- indicator - wskaźnikowa
- integrated elements – elementów scalonych
- detailed technique - szczegółowa

Depreciated replacement cost/contractor's method (UK)

Depreciated replacement cost - The current cost of replacing an asset with its modern equivalent asset less deductions for physical deterioration and all relevant forms of obsolescence and optimisation

Cost approach (India/Canada/USA)

THE MIXED APPROACH – MARKET VALUE

The mixed approach is applied when there is no possibility to use the comparative or investment approach. The methods used here are compilations of those used in the comparative, income or cost approach:

the residual method – metoda pozostałościowa

the dismantling cost method – metoda kosztów likwidacji **Three techniques:**

- indicator - wskaźnikowa
- integrated elements – elementów scalonych
- detailed technique - szczegółowa

the land value indicator method – metoda wskaźników szacunkowych gruntu

Residual method (UK) is based on the principle that the value of a property with development potential is equal to it after development, minus the costs and a profit for the developer.

Residual value – wartość rezydualna, wartość resztowa:

Residual value = Gross development value (GDV) – total development costs, including profit

Gross Development value (GDV) – wartość nieruchomości po zakończeniu prac rozwojowych/ulepszeniu

Total development costs - całkowite koszty zrealizowania zakładanego rozwoju

Individual task www.quizbrary.com Lesson 7, Task 3 – approaches,
methods and techniques

PRICE CHANGE TREND ISSUE

Trend zmiany cen (zmiana poziomu cen wskutek upływu czasu) = „Time trend”

How to calculate it?

- **Ceteris paribus** <https://youtu.be/E4D2JSANYc8> (**pozostałe równe**) = defines what variables are changing or what variables are remaining the same in a given situation.
- **The method of least-squares** (*Metoda najmniejszych kwadratów*) = is a crucial statistical method that is practised to find a regression line or a best-fit line for the given pattern.
- **The time series analysis** (*Analiza szeregów czasowych*) a specific way of analyzing a sequence of data points collected over an interval of time.

Regression analysis is one of the tools or methods that real estate appraisers use in or to **determine value adjustments**

The most common method for fitting a **regression line** is the **method of least-squares** – najpowszechniejszą metodą do wyznaczenia linii regresji najlepiej dopasowanej do danych jest **metoda najmniejszych kwadratów**.

Simple linear regression means there is only one independent variable X which changes result on different values for Y. Its formula is:

$$Y = B_0 + B_1X$$

where:

X – the value of the independent variable,

Y – the value of the dependent variable.

B₀ – is a constant (shows the value of Y when the value of X=0) – wyraz wolny

B₁ – the regression coefficient (shows how much Y changes for each unit change in X)/slope of the line – współczynnik regresji

Useful vocabulary -

- **correlation** – korelacja/zależność
- **causation** - przyczynowość
- **positive correlation** - dodatnia korelacja
- **negative correlation** - ujemna korelacja
- **weak correlation** - słaba korelacja
- **strong correlation** - silna korelacja
- **no correlation** - brak korelacji
- the “**line of best fit**” - najlepiej dopasowana linia
- **variables** – zmienne
- **Dependent variable** - zmienna zależna/objaśniana
- **Independent variable** - zmienna niezależna/objaśniająca
- **Regression coefficient** – współczynnik regresji

Individual task www.quizbrary.com Lesson 7, Task 4 = (Lesson 6/ Task 5) – wykresy punktowe – korelacja - listening

- Input data -Dane wejściowe
- Minimum price - Cena minimalna
- Maximum price - Cena maksymalna – maximum price
- Average price - Średnia cena
- Arithmetic mean - Średnia arytmetyczna
- Correlation coefficient - Współczynnik korelacji/zależności
- Correction coefficient - Współczynnik korygujący
- Market ttribute/feature weight – Waga cechy rynkowej
- Updated with - Uaktualniony o
- Update prices as of the valuation date - Uaktualnić ceny na dzień wyceny
- Ca, Cb – price of earlier and later transaction respectively - Ca, Cb -
odpowiednio cena wcześniejszej i późniejszej transakcji
- The range of correction coefficient - zakres współczynnika korygującego
- Bottom coefficient - dolna granica współczynnika
- Top coefficient - górna granica współczynnika

Breakout room task properties CMA

**ABSORPTION (ABSORPCJA)
AND VACANCY (PUSTOSTANY)**

Two **metrics** (mierniki/wskaźniki) that have a huge impact on the CPM:

CPM: Commercial Property Market (UK) =

CRE: Commercial Real Estate market (USA) =

Rynek Nieruchomości Komercyjnych

ABSORPTION

Absorption - is the amount of space or units occupied within a market over a given period of time, typically one year. (measured in square footage/feet/metres)

Gross/Total Absorption (Absorpcja brutto) = the total amount of space that a tenant physically moved into in a specific time frame in a given market **without regard for vacated space** during the same period. (useful information about market growth/ It can be helpful for seeing areas that were absorbed more than others.)

Net Absorption (Absorpcja netto) = the total amount of space that a tenant physically moved into **minus** the amount of space they vacated during the same time period. Net absorption can provide **trend information**.

Factors influencing the Net Absorption:

1. Availability

little availability = a **high net absorption rate** in that certain area = a good time to sell

high availability = a **low net absorption rate** = a good time to buy

• 2. Pricing

Rent rates (stawki czynszu) relative to leasable space (powierzchnia najmu) can greatly influence the net absorption of a commercial property.

Businesses or tenants will look for spaces that not only fit the needs and day-to-day operations of their business but also spaces having low rent rates.

• 3. Economic Conditions

- e.g. COVID-19, a war in Ukraine

NET ABSORPTION

- 1) **Positive net absorption (dodatnia absorpcja netto)** - refers to a situation in which more space is leased than is vacant; reflecting a decline in the supply of commercial space available.
- 2) **Negative net absorption (ujemna absorpcja netto)** - occurs when more space is vacant than occupied; indicating the demand for commercial real estate spaces has declined relative to the supply.

(NET) ABSORPTION RATES – WSKAŹNIK ABSORPCJI NETTO

Absorption rate (Stopa absorpcji) - is a measure of supply and demand. It shows how quickly properties are sold or leased. It is expressed as a percentage.

Formula /'fɔː.mjə.lə/ <https://dictionary.cambridge.org/pronunciation/english/formula>

Plural: formulas or formulae

$$\text{Absorption Rate} = \frac{\text{Average Number Of Sales Per Month}}{\text{Total Number Of Available Properties}}$$

Absorption rates may be **high** (wysokie) or **low** (niskie)

A percentage of 15 – 20% = a **neutral** market.

Above 20% = a **hot** market.

Net absorption rates can be:

-Positive (dodatnie) = more space is being leased or occupied than vacated

-Negative (ujemne) = more space is vacated than occupied

Individual Task www.quizbrary.com Lesson 7, Task 5 – vocabulary: absorption

VACANCY (Pustostany) /'veɪ.kən.si/
<https://dictionary.cambridge.org/dictionary/english/vacancy>
OCCUPANCY (Obłożenie)

A **vacancy** refers to an unoccupied unit or space in a rental property, such as an apartment complex or a commercial building.

An **occupancy** refers to using premises or property as a tenant or owner.

Types of vacancies

- **Normal Vacancy**- *when a tenant moves out at the end of their lease or decides not to renew their lease.*
- **Seasonal Vacancy** - *when a rental property is only occupied during certain times of the year, such as a vacation rental that is only occupied during the summer months.*
- **Unforeseen Vacancy** - *when a tenant moves out unexpectedly or a unit becomes uninhabitable due to damage.*
- **Structural Vacancy** - *when a unit is not able to be rented out due to structural issues or repairs that need to be made.*

VACANCY RATE/LEVEL

The vacancy rate (wskaźnik pustostanów) is the amount of units that are unoccupied over a specific time period. It is usually referred to as a percentage.

Two types of vacancy:

Physical vacancy (Vacancy rate) refers to the amount of time a unit or units sits vacant

A current physical vacancy rate:

*Vacancy Rate Formula = Vacant Units in the Building * 100 / Total Number of Units in the Building*

units = lokale

*= times = razy

/ = (divided) by = podzielone przez

If vacancy is represented over a longer time period, such as e.g. a year – the arithmetic mean.

Economic vacancy which refers to the amount of rent a property owner has lost due to the vacancy of their property. It is the difference between the actual rental income and the gross potential rent of a property.

Gross potential rent – potencjalny czynsz brutto – it assumes 100% occupancy

Economic vacancy includes several other factors, such as:

- Credit loss = tenants that have not paid rent,
- units that are occupied by a property manager or are otherwise “given” away,
- turnover periods between tenants, (the period of time when properties are vacant after one group of tenants has moved out, but before new tenants have moved in).
- and rental incentives (zachęty), such as a free month of rent (zwolnienie z czynszu na miesiąc) or a percentage-based rental discount (procentowa zniżka za wynajem).

Economic vacancy rate formula (its components expressed as a percentage):

Economic Vacancy = Physical Vacancy + “Given Units” + Free Rent + Credit Loss + ...

OCCUPANCY RATE/LEVEL

*Physical occupancy and economic occupancy are the opposites of their counterparts,
physical and economic occupancy*

Occupancy rate = Physical occupancy (wskaźnik obłożenia) is the opposite of the vacancy rate and it is the percentage of units in a rental property that are occupied at a current moment or over a specific time period.

Occupancy rate formula:

Occupancy rate = Number of Units Occupied * 100/Total Number of Available Units

Economic occupancy (rate) considers what a rental property is making against what it should be making

Economic occupancy (rate) formula (*on a monthly basis*):

*Economic occupancy rate = the total rent collected * 100/the total possible rent income (gross potential rent)*

The same formula can be applied to economic occupancy rate but on a yearly basis:

STEP 1 :calculate your yearly physical occupancy

STEP 2: subtract all discounts from the collected rent

STEP 3: divide the adjusted rent by the total possible rent income(gross potential rent) and multiply by 100

Individual task www.quizbrary.com – Lesson 7, task 6 vocabulary

Breakout room: **economic occupancy (rate)**