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## COMPARATIVE ANALYSIS OF TAX OBJECT SALES VALUE ON LAND AND BUILDINGS WITH INDONESIAN VALUATION STANDARD (SPI)-BASED VALUATION IN MALANG CITY

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### ABSTRACT

This research aimed to explore how the valuation/appraisal in determining land and building values at Tax Object Sales Value on Land and Buildings (*NJOP PBB*) in Malang City and to analyze the comparison between the valuation of Tax Object Sales Value on Land and Buildings (*NJOP PBB*) conducted in Malang and the valuation of land and buildings according to Indonesian Valuation Standards (*SPI*). Through the qualitative research with a case study approach, it was obtained that the model of mass and individual appraisals on the valuation of Tax Object Sales Value on Land and Buildings (*NJOP PBB*) had the similar stages to the individual appraisal according to Indonesian Valuation Standards (*SPI*). Furthermore, from the results, the problems faced in valuing Tax Object Sales Value on Land and Buildings (*NJOP PBB*) by the Local Revenue Office of Malang City were also known. It can be used as a consideration for the improvement of regulation or procedure in valuing Tax Object Sales Value on Land and Buildings (*NJOP PBB*).

### KEY WORDS

Property, valuation, taxes, land, buildings, standards.

In order to improve the service to the community and increase the independence of local government, Rural-and-Urban Land and Building Tax (*PBB-P2*) will be transferred into local tax according to the Law No.28/2009 on Regional Tax and Regional Retribution. It gives a positive impact as well as a challenge for the local government of Malang because, by the issuance of the Law, the entire Land and Building Tax (LBT or *PBB*) becomes the locally-generated revenue (*PAD*) that is one of the potential sources of revenue. It has been a challenge for the local government to be able to manage the Land and Building Tax (LBT or *PBB*) properly for the welfare and progress of the people of Malang. In connection with this, the local government of Malang City has conducted a data collection, valuation, determination, administration, billing/collection, and service regarding Land and Building Tax (LBT or *PBB*) starting on January 1, 2013.

The basis for the imposition of Land and Building Tax (LBT or *PBB*) is Tax Object Sales Value or also called '*Land and Building Tax Imposition Base*' (*NJOP*). Therefore, the amount of Land and Building Tax to be paid depends on the Tax Object Sales Value (*NJOP*). The valuation of Tax Object Sales Value (*NJOP*) is done by two appraisal methods, which are mass appraisal for standard tax objects spread throughout Malang City area, and individual appraisal for non-standard tax objects. The distinction is more emphasized on the economic value and potential tax imposition of the object concerned. At this time, the mass appraisal is made on most tax objects whereas the individual appraisal is applied to some tax objects with relatively small amounts.

There are three approaches in the appraisals used either in valuing tax objects or in Indonesian Valuation Standard-based valuation, covering [1]. Market Approach is an approach used in estimating the value of tax objects by making a comparison with comparable data and adjusting it to the market if there is a difference between the valued tax object and the comparison data; [2]. Revenue Approach is an approach used to estimate the value of tax objects by making a projection of net revenue in the upcoming years and converting it to the present value; [3]. Cost Approach is an approach used to estimate tax

objects by totalizing the market value of the land and the market value of the building, in which the market value of land is calculated using market methods while the market value of the building is calculated using cost methods. The approach used in valuing the tax objects of buildings in Malang City is done using Market Approach.

In accordance with the practices that have been done up to now, the Tax Object Sales Value on Land and Buildings (*NJOP PBB*) used as the basis for Land and Building Tax calculation in Malang City has not shown the real condition in the market and has a difference with the market value. There has not been any specific research conducted on the comparison between the valuation of Tax Object Sales Value on Land and Buildings and the valuation based on the Indonesian Valuation Standard in Malang City. However, the determination of Tax Object Sales Value in relation to the potential of local revenue that has huge advantages in order to generate the local economy has led to many studies on Tax Object Sales Value conducted. Most of the previous studies have examined whether there is a difference in the results of the valuation/appraisal of Tax Object Sales Value with the market value but there has been no research on how the valuation process is done in determining Tax Object Sales Value (*NJOP*), resulting in differences, particularly in Malang City.

Tretton (2007), in his study on the taxation valuation (reviewing the enhancement of computer-aided valuation model or *Automated Valuation Model/AVM*) in several countries such as America, Canada, Northern Ireland and Hong Kong, stated that the automated valuation program can assist in the valuation process but the quality of the data and appraiser is an important factor in generating accurate valuations for tax purposes. Moreover, Hefferan, in his journal published in 2010, examined on the mass appraisal of property tax in Australia and the adjustments to new environments. The results of his study suggest that the fundamental technique in the mass appraisal can be still relied upon by improving the appraisal system effectiveness by increasing the access to market information and good cooperation with the appraisal profession. Furthermore, Preston (2005), in his study, discussed the development and trend affecting the characteristics and needs of the valuation services of the world in the short and medium terms, stating that the popularity of property-based taxes grows with governments around the world either as a mass land tax system or a *top-up* revenue. Its appeal lies in the significant increase in property values of the market economy from the medium to the long term. The basic form of tax valuation is almost guaranteed to increase the income of the government. To ensure the fairness, a regular mass reappraisal of property values is needed to assure that the appraised value is closer to the market.

Pitt (2004), in his study, stated that the UK Central Government has used two disciplines in making the valuation that is reflected in Green Book (An Appraisal and Evaluation Book of the Central Government) and Red Book (A Valuation Standard Book used by Public Property Practitioners) for many years to help in assuring the efficiency of the property used by Taxpayers. Bowan (1996), in his journal entitled *Perkembangan Metodologi Penilaian* (Valuation Methodology Development), stated that, in overcoming problems or limitations of valuation methods, it is very important to not forget the market practices and its effects, such as general economic conditions. The theory has been and will continuously be the important part in identifying problems and shortcomings of valuation techniques.

The purpose of this study was to explore how the valuation in determining the value of land and buildings on the Tax Object Sales Value (*NJOP PBB*) in Malang City and to analyze the comparison between the valuation of Tax Object Sales Value on Land and Buildings (*NJOP PBB*) in Malang City and the valuation of land and buildings based on Indonesian Valuation Standard (*SPI*).

## METHODS OF RESEARCH

To obtain the complete description and explanation about the valuation of Tax Object Sales Value on Land and Buildings (*NJOP PBB*) conducted by the Local Revenue Office of Malang City, a qualitative research design with a case study approach was used in this

research. Moleong (2009) argued that a qualitative research is a research conducted to understand the meaning of an event by digging or deepening descriptive data from the research subject (in the form of written or verbal words) and observing the behaviors in the natural context which is then analyzed to derive conclusions from the research results. A case study was used as the approach to this research because the researchers conducted a detailed and accurate investigation, and the data were collected using various data collection methods limited by time and activity (Cresswell, 2010). This research also used the question of “*how*” and “*why*”, in which the researchers had no control over an event, in which the researchers only focused on the contemporary phenomena that had relation to the real life (Yin, 2014).

The quality of the research results was highly influenced by the quality of data collection. The data collection methods used in this research covered observation, interviews, and documentation. In the process of data collection, the three techniques were used simultaneously and carried out continuously until the information obtained was considered sufficient.

The stages of data analysis performed were based on the qualitative data analysis with an interactive analysis model presented by Miles and Huberman covering as follows:

- The data collection was done by means of observation, interview, and documentation.

- Observing the operational reality of the tax object valuation conducted by the Local Revenue Office, which in this case referred to the section of Land and Building Tax.

- Conducting semi-structured *face to face* interviews with the informants, giving in-depth questions (both pre-prepared questions and developed questions)

- Making documentation by collecting the data from some documents, archives, and records/notes of the institute that were considered important and related to the problems being studied.

- The data reduction was made to the results of observation, interviews, and documentation concerned so that it could be presented valid and relevant information regarding the valuation of Tax Object Sales Value on Land and Buildings (*NJOP PBB*). The data reduction was performed by summarizing and selecting the main points, focusing on the important ones that were in relation to the problems being studied, seeking the pattern or theme, and omitting the points that were not necessary.

- The analysis of the comparison between the valuation of Tax Object Sales Value on Land and Buildings (*NJOP PBB*) and the valuation based on Indonesian Valuation Standard was conducted along with the discussion on the valuation case presented in the form of description covering narrative text and table to be more understandable. The data were also presented in certain relationship patterns so that the conclusions of information obtained from this research could be meaningful and easy to understand.

- The last stage was conclusion drawing or verification of all the data obtained, reduced, and presented as the research results.

## RESULTS AND DISCUSSION

*Mass Appraisal.* In performing the activity of determining Tax Object Sales Value on Land and Buildings (*NJOP PBB*), the tax object to be valued or appraised by the Local Revenue Office were first classified, whether it belonged to mass or individual appraisal. The assets appraised in the mass appraisal conducted by the Local Revenue Office of Malang City were the assets of rural-and-urban standard tax objects covering the areas of agriculture, housing, offices, shops, and industries. Based on the observation, there were some objects of Land and Building Tax in mass appraisal although it had the criteria that should be appraised individually. In general, the tax objects were in the form of factories that have undergone land and building expansion. Meanwhile, according to Indonesian Valuation Standard (*SPI*), it was stated that the appraised assets were a group of individual assets in large quantities without any limitation of criteria in which the value determination referred to

the valuation equation, tables, and process developed through mathematical analysis sourced from the market data.

The objective of mass and individual appraisals conducted by the Local Revenue Office of Malang City was to determine the Tax Object Sales Value on Land and Buildings (*NJOP PBB*) of tax objects so that it could be in line with the rules, not incriminating the Taxpayers and not causing turmoil in the community. The mass appraisal was used to determine the Tax Object Sales Value on Land and Buildings (*NJOP PBB*) of standard tax objects. Because of the very great number of tax objects and the limitations of costs and human resources, the mass appraisal was done using the old data, unless there was a new data submission, mutation (rename), rectification/correction, and objection due to the increased *NJOP PBB* or the *NJOP PBB* relief request. The most important parts in the appraisal were the Tax Object Sales Value (*NJOP PBB*) that was determined not to burden the Taxpayers and the achievement of tax targets that have been established. The objective of mass appraisal, according to Indonesian Valuation Standards (*SPI*), was to provide a framework for the task of mass appraisal, one of which was for the tax purposes especially the property tax in Indonesia (determining *NJOP PBB*). In conducting the mass appraisal work, the appraisers must follow applicable laws or regulations that affected the assignment of mass appraisal.

The process of the appraisal work would result in accurate value if a person who had competence in carrying out the appraisal did it. The competence, in this case, included having an educational background that related to the appraisal field, having experience in joining a specific education and training in the field of appraisal, and being well experienced in conducting the appraisal/valuation work. Indonesian Valuation Standards (*SPI*) required the appraisal work to be carried out by an appraiser that met the requirements in accordance with Indonesian Valuation Standard (*SPI*).

Due to the limited human resources in the Local Revenue Office of Malang City, the appraisal officer was only one with the educational background of economics degree and Diploma I of Economics School majoring in the Appraisal program. Of course, this became a problem, considering that the tax objects in Malang City reached 267,000 tax objects. To overcoming this problem, the field work was assisted by one contract employee in every district. The contracted employee was a retired employee of Tax Office (*KPP Pratama*) who has well experienced in the field of Land and Building Tax. Activities of data collection, as well as tax object and subject verification, have been ever conducted in some areas of Malang City with the help of third parties. Besides, there were also some contract employees who were on duty to assist the data collection process until printing the Notice of Land and Building Tax Payable (*SPPT PBB*). Thus, the recruitment of employees conducting the work of Land and Building Tax valuation/appraisal in the environment of the Local Revenue Office of Malang City has not followed the rules that have been determined.

In the implementation of registration, data collection, and valuation or appraisal of objects and subjects of Land and Building Tax, the Local Revenue Office of Malang City used the Information Management System of Tax Objects (*SISMIOP*). The system (*SISMIOP*) is an integrated system to process the object and subject information or data of Land and Building Tax with the aid of computer starting from data collection (through registration, data collection, and appraisal), tax object identity administration (Tax Object Number), data recording, database maintenance, printing outputs (in the form of Notification of Tax Due [*SPPT*], Tax Payment Slip [*STTS*], Tax Underpayment Collection List [*DHKP*], and so on), monitoring of the receipt and execution of tax collection, up to the services to Taxpayers through One Place Service. The Computer-Assisted Mass Appraisal (*CAMA*) used in mass appraisal according to the Indonesian Valuation Standards (*SPI*) was aimed at improving the efficiency and technical capabilities to increase the accuracy and consistency of the appraisal, tracking the ownership and releasing status, making a print, and others. Because the number of tax objects managed was very large, the use of computer technology was absolutely necessary.

Indonesian Valuation Standard (*SPI*) suggested that mass appraisal required the formation of valuation model developed from the three approaches that were commonly

used, namely *market approach*, *cost approach*, and *income approach*. In the mass appraisal, to calculate Tax Object Sales Value on Land and Buildings (*NJOP PBB*), a market approach was used to establish the appraisal equation that would be applied. The appraisal/valuation conducted by the Local Revenue Office of Malang City was used market approach for the tax object valuation of land and used cost approach for the tax object valuation of land and buildings. The value of land used was derived from Land Value Zone or *ZNT* (the Average Indication Value [*NIR*] on *ZNT* was obtained from the survey of comparison data contained in the *ZNT* location) while the value of the building was obtained automatically in the *SISMIOP* program. From the value of land and building, it could be summed up and known the *NJOP* (the Tax Object Sales Value).

Inspection activities conducted as a part of data collection was aimed at establishing and maintaining the land and building property database and were a part of the valuation process that was very needed in doing an analysis for the determination of Tax Object Sales Value on Land and Buildings (*NJOP PBB*). The data collection in relation to the valuation included the data collection of land and building tax object and comparison data collection used to analyze the land and building market values of tax objects. By inspecting the data used in the valuation process and valuation analysis, the determination of Tax Object Sales Value on Land and Buildings (*NJOP PBB*) would be more accurate so that the values resulted would reflect the market value. Due to the limited funds and human resources, the inspection activities conducted by the Local Revenue Office of Malang City often did not meet the inspection requirements in order to result in accurate and valid data which were very needed in the valuation process.

At the time of the acceptance of authority in managing Land and Building Tax, the Local Revenue Office of Malang City also received the tax object and subject data required in the valuation of *NJOP PBB*. The data related to the valuation covered the map of Land Value Zone (*ZNT*), Building Component Price List (*DBKB*), the list of land classes, and Information Management System of Tax Objects (*SISMIOP*). Based on the inspection that has been conducted, there were still many deficiencies and errors contained in the data received. There were still many data that were not in line with the conditions in the field and, of course, it became a stand-alone problem in the valuation process to be able to produce accurate values that were in accordance with the market conditions if the data were used.

As for the inspection that has been done by the Local Revenue Office of Malang City, the registration, valuation, and determination of Land and Buildings were done based on the priority of areas that had a pretty high economic development. It could be seen from the property development that was high enough in which the areas were developed into commercial areas that were increasingly crowded, or due to the increase in property prices. In addition, the development of an area could be known from the tax payment information of Fees on Acquisition of Rights to Land and Buildings (*BPHTB*). The inspections carried out so far, in general, were only to update the land prices around the tax object appraised, while to verify the tax object, the measurement of land and buildings was only done if there were complaints made by the tax subjects.

Inspections were also conducted to collect the comparison data in sufficient quantities to be used in determining the valuation equation. According to the Indonesian Valuation Standard (*SPI*), market approach estimated property values through statistical analysis including using multiple regression analysis that was by comparing the selling price of comparable properties and making adjustments. In the multiple regression analysis, it was determined dependent variables (such as land area, building area, asset location, and etc.) that can affect independent variables (market value). In mass appraisal done by the Local Revenue Office of Malang City, a multiple regression analysis was not used.

In the mass appraisal of Tax Object Sales Value on Rural-and-Urban Land and Buildings (*NJOP PBB-P2*) carried out by the Local Revenue Office of Malang City, the land market value of tax objects was determined from the land value zone. Land value zone is a geographical zone of a group of tax objects that have the same average indicative value or, in other words, has the same land market value of each square meter. Thus, the geographical boundaries had a great significance in determining Tax Object Sales Value

(*NJOP*) of land. The inappropriate determination of the geographical boundaries of land value zone would cause a tax object to be in a land value zone with an indication of the average value that was different from the real condition.

The land market value on the land value zone was determined by conducting an appraisal using market approach. Of at least three comparison data in the form of property data sold and offered in the area of the land value zone, an analysis was done to determine the land market value on the land value zone. The comparison data could be in the form of empty land or building land. If the comparison data were in the form of building land, it must be estimated the building market value of the comparison data, which then was extracted to determine the land market value indication. From the comparison data, an adjustment and weighting were made to know the land market value. The market value of the asset buildings valued and the comparison data obtained from the Building Component Price List (*DBKB*) were reduced with the existing depreciations.

Inspections in mass appraisal, according to Indonesian Valuation Standards (*SPI*), were very important to be carried out in relation to collecting and maintaining property data covering geographical data, property characteristic data (eg. land data and building-development data such as land area and the dimension, speciation and area of the buildings, etc.), and sale or supply price data. According to Indonesian Valuation Standard (*SPI*), the data must constantly be updated in facing changes caused by the development of property prices in the region, changes in property characteristic data caused by the development of new building models and the renovation, demolition, and destruction of properties, and so on. The inspections were also performed to obtain as much as possible comparison data to be used in determining the valuation equation. The accuracy of the values depended on the completeness and accuracy of the data required in the valuation of the tax objects. The data completeness and accuracy could be achieved if the inspections were conducted properly, carried out periodically in accordance with existing developments and changes as well as in line with applicable laws and regulations.

The Indonesian Valuation Standards (*SPI*) of 2015 required the identification of the appraised properties in order to collect and maintain sufficient property characteristic data for classification, appraisal/valuation, and other purposes. The property data must be constantly updated in relation to changes in building models and the renovation, demolition, and destruction of the buildings. The unavailability of accurate property data certainly made the research results not accurate. In the mass appraisal carried out by the Local Revenue Office of Malang City, in general, there was no detailed tax object identification conducted to know the land area, land position, building area, and land/building condition of the tax objects. Most of the tax object information was based on the data obtained from the Tax Office (*KPP Pratama*).

To obtain property values that were appropriate with the market, an analysis of comparison data that were proportional to the object properties must be conducted in performing property object appraisal/valuation. Therefore, it was necessary to define comparable and consistent property areas between the appraised property objects and the used comparison data (*SPI*, 2015). That was, the comparison data were *apple-to-apple* data or as closely as possible to the property objects being appraised. It should be similar or almost similar in relation to the land and building location and area, asset condition, and so on. The comparison data used in the analysis to obtain the land Tax Object Sales Value (*NJOP*) of tax objects should use comparable data in order to obtain more accurate analysis results. Because the determination of land Tax Object Sales Value (*NJOP*) for mass appraisal used *ZNT*, the analysis conducted was not as detailed as in the comparison data analysis on the individual appraisal.

Based on the observation, interviews, archives, and documentation of the research, it was known that the model of the mass appraisal conducted by the Local Revenue Office of Malang City was almost the same with the individual appraisal. What distinguished was that the process of individual appraisal was conducted in more detail. As an example, the determination of land Tax Object Sales Value (*NJOP*) of Land and Building Tax (*PBB*) objects in mass appraisal was ruled by the location of the tax objects on *ZNT*, so the Tax

Object Sales Value (*NJOP*) of land was an average indication value of land on the land value zone. Meanwhile, in individual appraisal, the Tax Object Sales Value was determined in detail by conducting inspections to find out the land value based on the analysis of supply/sales data that was comparable with the tax objects appraised.

The model of mass appraisal according on the Indonesian Valuation Standards (*SPI*) was very different with the individual appraisal of assets. The model of mass appraisal was an equation explaining the relationship between the value or estimation of selling price and the variables of supply and demand representing. The mass appraisal was an appraisal system based on available data using standard procedures and statistically tested on a group of properties. Therefore, the mass appraisal according to *SPI* was conducted by developing model structures reflecting the relationship between the characteristics affecting the market and model structure calibration to determine the contribution of individual characteristics affecting the value, and applying the conclusions reflected in the model with the property characteristics appraised.

Table 1 – Summary of Appraisal Comparison

No.	Description	The Appraisal of Tax Object Sales Value on Land and Buildings ( <i>NJOP PBB</i> ) in Malang City	According to Indonesian Valuation Standards ( <i>SPI</i> )
1.	Appraised Assets	All of the tax objects of Land and Building Tax ( <i>PBB</i> ) except the individual/specific tax objects	A group of real assets of individual properties in large quantities
2.	Objectives	Tax Object Sales Value on Land and Buildings ( <i>NJOP PBB</i> )	Tax Object Sales Value on Land and Buildings ( <i>NJOP PBB</i> )
3.	Accountability	Applicable laws or regulations	Applicable laws or regulations
4.	Human Resources	Bachelor of Economics and Diploma 1 of Appraisal Program	Property Appraiser
5.	Technology Used	CAV (Computer Assist Valuation)	CAMA (Computer-Assisted Mass Appraisal)
6.	Approaches Used	Market and cost approaches	Market, cost, and income approaches using a multiple regression analysis
7.	Field Inspection	Not always	Yes
8.	Identification of the appraised property	Yes	Yes
9.	Definition of consistent and comparable property market areas for properties	Yes	Yes
10.	Definition of supply and demand characteristics affecting the prevailing market value	Yes	Yes
11.	Development of model structures reflecting the relationship between the characteristics affecting the market	No	Yes
12.	Calibration of model structures to determine the contribution of individual characteristics affecting the value	No	Yes
13.	Application of the conclusions reflected in the model with property characteristics appraised	No	Yes
14.	Review of mass appraisal results	Yes (review for the Tax Object Sales Value ( <i>NJOP</i> ) of Land)	Yes (review for appraisal model)

In the mass appraisal conducted by the Local Revenue Office of Malang City, a review was made to update Land Value Zone (*ZNT*). The review was started at the time of Land and Building Tax (*PBB*) management delegation in which the Average Indication Value (*NIR*) was

still considered very low compared to the existing market price. Moreover, the review was conducted based on the information about the developments in a region that led to an increase in land prices in the region.

From the results of observation, interviews, and documentation that have been carried out by the researchers, it was obtained a summary of appraisal comparison in the form of Table 1.

*Individual Appraisal.* Most of the mass appraisal stages conducted by the Local Revenue Office were the same with the individual appraisal. Table 2 shows the comparison derived from the research results on individual appraisal.

Table 2 – Comparison of Individual Appraisal

No.	Description	The Appraisal of Tax Object Sales Value on Land and Buildings ( <i>NJOP PBB</i> ) in Malang City	According to Indonesian Valuation Standards ( <i>SPI</i> )
1.	Identification of the assignor and the report user	Yes	Yes
2.	Determination of appraisal objectives	Yes	Yes
3.	Determination of the basic value	Yes	Yes
4.	Identification of appraisal objects and ownership rights	Yes	Yes
5.	Determination of appraisal date	Yes	Yes
6.	Data collection and selection	Yes	Yes
7.	Data analysis	Yes	Yes
8.	Land value opinion	Yes	Yes
9.	Appraisal approach	Yes	Yes
10.	Reconciliation of value indication and final value opinion	No	Not always
11.	Appraisal report	Yes	Yes

The identification of the appraisal assignor of Tax Object Sales Value on Rural-and-Urban Land and Buildings was the Head of the Local Revenue Office of Malang City, and the appraisal report user was the Local Revenue Office of Malang City itself. In the appraisal according to Indonesian Valuation Standards (*SIP*), the identification of the appraisal assignor and the user of important-identified report was to avoid a misuse of the report of the appraisal results by irresponsible parties and to confirm that the appraiser was not liable if the appraisal report was used by parties not mentioned in the report.

An appraisal is the process of work to provide an estimate and opinion on the economic value of an appraisal object that can be used for various purposes. The objective of an appraisal conducted by the Local Revenue Office of Malang City as mentioned in the Regional Regulation of Malang City No.11 of 2011, Article 6 Paragraph 1 on Urban Land and Building Tax is to determine Tax Object Sales Value (*NJOP*). Tax Object Sales Value (*NJOP*) is set to calculate the amount of tax payable as the state of the tax object on January 1 of the tax year. It means that the *NJOP* must be set before the 1<sup>st</sup> of January of the fiscal year, assuming no change since the date of the field inspection. According to Indonesian Valuation Standard (*SPI*), the objectives of appraisal should be ascertained early in the appraisal process because it will determine the appraisal basic to be used. The basic value used is *NJOP*, which refers to the market value according to the Law explanation. The value of a property has a possibility to change over time. Therefore, the date determination of appraisal is very important.

Identification of the property appraised for the determination of Tax Object Sales Value on Rural-and-Urban Land and Buildings (*NJOP PBB-P2*) of individual tax objects that was conducted by the Local Revenue Office of Malang City was to find out the location/position of the tax objects as well as the physical condition of the land and buildings. The land and building areas were based on the documents received from the government institution (e.g. photocopy of certificates, building permit (*IMB*) and etc.) or files received from Taxpayers. Meanwhile, according to Indonesian Valuation Standard (*SPI*), the identification must be



done to determine the real condition of the tax objects valued/appraised. Furthermore, the identification was done at the time of inspection by verifying the data owned with the real tax object condition as in the field.

Data collection and selection conducted by the Local Revenue Office to analyze the Tax Object Sales Value (*NJOP*) of land. The data used were the other similar objects that were close located, have the same function, and have known its selling prices as explained in the Regional Regulation of Malang City, Article 1 Paragraph 11 on Urban Land and Building Tax. The objective of the appraisal conducted in determining Tax Object Sales Value on Rural-and-Urban Land and Buildings (*NJOP PBB-P2*) was to determine the market value indication because the data used were derived from the market. Based on Indonesian Valuation Standard (*SPI*), the data collected and analyzed included general data, specific data, demand and supply data. General data were external factors that affect value including government regulations and socioeconomic trends, and so on. Specific data were related to property objects appraised while demand and supply data were related to the asset demand and supply data that were proportional to the tax objects.

There were three approaches that can be applied in individual appraisal, either according to the applicable rules in the appraisal of Tax Object Sales Value on Land and Buildings (*NJOP PBB*) or Indonesian Valuation Standard (*SPI*). The implementation of the approaches depended on the type of properties appraised and the comparison data existing in the market, and it could be used one approach and more. According to Indonesian Valuation Standard (*SPI*), the appraisal/valuation could use more than one approach, which was then reconciled by weighing both the market values resulted. In the practice undertaken by the appraiser of Land and Building Tax in Malang, a market approach was used for land tax object and a cost approach was used for land and building tax objects. The cost approach was performed by estimating the land market value with a comparative method of the market data of the land around the comparable property objects appraised/valued. The market value of the building was derived from the cost method, which was an approach of *NJOP* by calculating the total cost incurred to obtain the objects at the time of the appraisal/valuation, reduced with the depreciation of the physical, functional, and economic conditions of the tax objects. The market value of the tax objects is derived by summing up the estimated market value of land and market value of buildings.

In analyzing land values using market methods, proportional comparison data were collected and selected. The comparison data were obtained by doing market research to find out market information about comparable property transactions or deals known as *apple-to-apple* with the appraised objects. What "*comparable/proportional*" means here was the same type of properties, the location, condition, and quality of land and buildings, the same land use and etc. There was no specific rule regarding the amount of comparable/proportional data but it generally was three or four.

## CONCLUSION

There are two appraisal models in determining Tax Object Sales Value on Land and Buildings (*NJOP PBB*), namely mass appraisal and individual appraisal. The appraisal methods conducted are almost similar to the individual appraisal according to Indonesian Valuation Standards (*SPI*). The mass appraisal of *NJOP PBB* based on *SPI* uses an appraisal equation model tested statistically. Practically, the appraisal with an equation model is difficult to apply in Malang or in Indonesia generally although it is theoretically applicable. This is because it requires a lot of investment and adequate human resources to change the existing appraisal model.

The appraisal process undertaken in mass and individual appraisals by the Local Revenue Office of Malang City is similar, which in principle use a market approach to the appraisal of land tax objects and a cost approach for the appraisal of land and building tax objects (Land valuation using market method and building valuation using cost method). However, the individual appraisal is conducted in more detail in determining the selling value of land and building tax objects. This is because the number of tax objects that are

appraised/valued in mass is much more than those appraised/valued individually. In addition, an individual tax object is non-standard tax object that has a much higher economic value than a standard tax object.

The problems faced in conducting the appraisal of Tax Object Sales Value on Land and Buildings (*NJOP PBB*) by the Local Revenue Office of Malang City are caused by the following matters:

- The appraisal process is less supported by the quality and quantity of valid accurate and accountable market database and information.

- There are two tax object components analyzed in the determination of *NJOP PBB*, namely land and buildings. Errors in one of the components in estimating *NJOP PBB* can give appraisal results that are not in line with the market. The calculation of the land market value of *NJOP PBB* is closely related to the accuracy of land value zoning, identification of land tax object and analysis of comparison data conducted. Based on the research that has been done, these things are still not done in detail and accurately which will ultimately produce appraisal outputs/results that do not match the value reflecting the market.

- To determine the market value of a building-tax object, it is calculated from the cost of a new replacement of the building-tax object appraised that is reduced with the depreciations in accordance with the existing conditions. The list of building cost components used in estimating the new building replacement in mass appraisal uses the data provided by Tax Office (*KPP Pratama*), which is not yet appropriate to the market. Thus, the market value calculation result of building-Tax Object Sales Value (*NJOP PBB*) is still not accurate.

- The absence of adequate human resources and the need for a large budget become an obstacle to improve the quality and quantity of the data required in the appraisal/valuation. In addition, the existing data are considered sufficient to meet the main objectives of the target of Land and Building Tax revenue. Moreover, there is no any appropriate policy encouraging the implementation of *NJOP PBB* to conduct the appraisal/valuation work correctly in order to obtain accurate appraisal/valuation of tax objects with broader objectives that do not increase the original revenue of the region only. The broader objective is the national database that can be used for various purposes, not only for taxation (*single value for multiple purposes*).

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