Real estate valuation

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Soft factors in real estate calculation

Summary

When determining a market value for properties; the economical and technical standards are evaluated. In addition to this there are other factors that affect the market value. These factors are subjective and are identified through market analysis. The market is analyzed in three levels; the society, the city and the object. A thorough and complete analysis provides investors with knowledge of all the factors affecting the market value; therefore the most important thing in real estate valuation is knowing your market.

Real estate valuation

When deciding a property's market value the key question is "how much is an investor willing to pay at this given moment". The most common method of determining the market value is a cash-flow calculation. The net operating income, set by incomes minus costs, is discounted with a yield requirement. The yield requirement is a key factor set by purchases made in the same area, net operating income through purchase price. The yield requirement represents the risk of the investment. When an investment is safe, and the likeliness of retrieving the expected net operating income is high, a lower yield requirement is accepted. If the investment poses a greater risk the yield requirement is higher.[1]

The technical standard of the property is also analyzed; should there be neglected maintenance the costs for taking care of this is estimated. The value should then be reduced with an equivalent amount.

Soft factors

Soft factors are by definition non measurable and therefore subjective. Within real estate valuation the soft factors needs to be valued when calculating an objects market value. Finding the soft factors and assigning them an economical value all comes

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[1] *Fastighetsekonomi hyresfastigheter*, Håkan Bejrum och Stellan Lundström, 1996

down to analysing the market. A complete market analysis should be done at three levels: society analysis, city analysis and object analysis.[2] Within each level there are different soft factors to considerate.

The society analysis

When analysing the society in which the object functions, the political situation is essential. The government controls the laws concerning the real estate market which is why it is important to analyze the political agenda regarding these.

One example of this is rent control. In most countries the rent for residential apartments is somehow controlled by law. In some countries the owner is free to set any rent before the apartment is hired out, but whilst the apartment is leased the yearly rental increase is controlled by law. In Sweden initial rent as well as yearly increases is restrained.[3] When calculating a property's yearly return, rent increase is a vital factor.

Another example of how the laws affect the real estate market is real estate taxation; a government shift can result in changed taxation principles.

Neither rent control nor taxation are per se a soft factor since both are easy to valuate economically. It is the prospect of a change in the system that is subjective; for example if the rent control system is about to be deregulated it will affect property values. Hence; the expectation of higher income needs to be considered when calculating a property's market value. By estimating the economical effect of the political decision you can calculate the property's future market value. Of course the value won't reach its full potential before the change is executed but the expectation will make an investor willing to pay a part of the potential value increase. The size of that part is determined by how certain the potential is.

The city analysis

When analyzing the city in which the object is situated, geographical as well as industrial aspects need to be considered.

The objects location in the city is of great importance. People's perception of different areas in a city affects the demand for apartments in that location. The demand affects factors of economical nature such as vacancy and fluctuation of tenants.

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[2] *Fastighetsvärdering - Grundläggande teori och praktisk värdering*, Lantmäteriverket & Mäklarsamfundet, 2005

[3] *Global Property Guide: The pros and cons of rent control,* (http://www.globalpropertyguide.com/investment-analysis/The-pros-and-cons-of-rent-control) 2009

Low level of vacancy and a low fluctuation secures the net operating income.

The common way of classifying different location is to grade areas from A to C, where A is the best. The location set by a rough classification like this is called macro location. When setting the yield requirement the macro location is essential; the better the area is, the lower the yield requirement should be. By deciding the yield requirement the risk of the investment is estimated. A good location vouches for the expected net operating income and a positive exit value, the risk is low and a lower yield requirement is accepted.
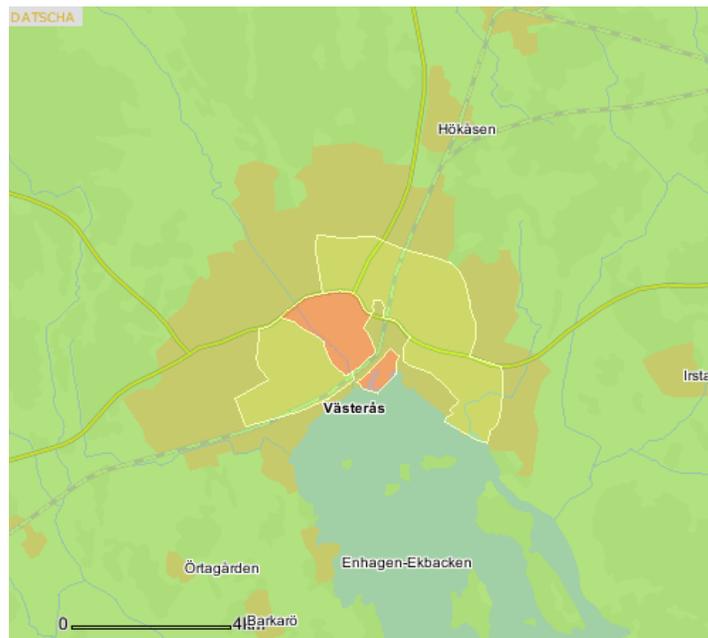
The map shows an example of geographical classification. Red areas represent A-locations; light green is B-locations.

The city analysis should also contain investigations of the industry in the city. If the city mainly relies upon one type of industry it is important to evaluate this industry's vitality. Should this industry go under; the city's inhabitants may be forced to move to other cities for employment which will lead to high level of vacancies and a reduced income. A volatile industry structure in the city increases the risk and entitles a higher yield requirement.

Another factor that needs to be considered in the city analysis is the population; if there is a negative trend in population growth the risk is high. A prediction that the demand for apartments will decrease over the years, since there will be fewer possible tenants, and again that there is a risk of vacancies. The population structure is another fact that needs to be considered; a high percentage of older citizens is a warning sign. If the

population growth is not already negative this indicates that it might turn in the near future.

The object analysis

When analysing the object in question the technical aspects of the building of course is very important. But, the discussion in hand is about soft factors, which is why the details of the property's technical standard are disregarded at the moment.

The most important thing to analyze at this level is the property's micro location. As shown in the map above the macro location is a rough classification of different areas in a city. In the example above the entire city centre is classified as an A-location, we all know that a city is more diverse than that. Micro locations are common and usually set by rather irrational rules like: "north of the river is a better place to live". These micro locations are not always possible to identify by looking at a map, it is very important to know the market you are looking at. Usually the different micro locations vary only little from each other which is why they are usually described as A- or B+ locations. A plus or a minus is used to divide macro locations into micro locations.

A valuation example

A quick example will show how the methods described above are to be used.

In a medium sized city the yield requirements vary as shown below:

A	4.0% - 4.5%
B	4.5% - 5.0%
C	5.0% - 5.5%

The property is situated in a micro location classified as B+, which is why the yield requirement is set to 4.5 percent. The net operating income is SEK 650,000 a year and the costs for neglected maintenance are estimated to SEK 2.5 million. This gives a market value of

$$\frac{650,000}{4.5\%} + 2,500,000 = SEK11,950,000$$

Lets say that the current rent control system is about to change and the restrained rents is about to be deregulated. The market rent is estimated to be 5 percent higher than the current rent. This gives the potential of SEK 65,000 more in net operating income, which is why the value should be increased by

$$\frac{65,000}{4.5\%} = SEK\,1,450,000$$

The political decision to deregulate the rental control system has taken force but we cannot be 100 percent sure that we can increase the rent immediately which is why we decide that it is reasonable to add 25 per cent of the prospected value increase to the calculated market value.

The market value is now

11,950,000 + (25% * 1,450,000) = SEK 12,306,000

Conclusion

As you can see, the mathematical aspect of real estate valuation is not very advanced. The competence lies within the analyses which are supposed to provide the investor with all necessary facts about the property. Knowledge about the market is the key to good investments.