Hong Kong Property Market Indices

Savills Research & Consultancy

Technical Note

This technical note outlines the methodology for the construction of the property price and rental indices for the Hong Kong property market which are published quarterly by Savills Research & Consultancy in association with the Centre for Real Estate and Urban Economics (CREUE), The University of Hong Kong (HKU). Data for the construction of the indices is provided by Savills.

The indices are intended to provide information on the movement of price and rental trends of different sub-sectors of the Hong Kong property market. There are altogether 33 property price indices and 33 rental indices covering the sub-markets listed in Appendices I and II.

The data for the construction of the indices is based on professional valuation of the unit price (HK$ per sq ft of floor area) of a 'standard unit' in a sample of selected properties or locations. The properties and locations for each sub-market are shown in Appendix III. The samples cover most of the major actively traded properties and locations of the sub-markets. The samples also change over time as new properties are being developed and demolished.

The valuation is based on the transaction prices of comparable sales. The concept of valuation of a 'standard unit' is adopted to ensure that quality is constant over time so that any change in unit price represents pure price movement. The unit price of the 'standard unit' is indicative of the average unit price of the building or location. Some of the characteristics of the 'standard unit' may not match exactly the reality (for example, units of a certain size may not exist in some buildings), in which case the value can be viewed as the price of a unit with the nearest characteristics. The definitions of a 'standard unit' in each sub-market are shown in Appendices I and II.

The indices are constructed based on the simple average of the quarterly continuous compounded growth / decline (Appendix IV) in the prices and rents of the 'standard unit' in the selected building or location (Appendix V). Simple instead of value weighted averages are used for two reasons; firstly, some samples are location based rather than property based and the market value of a location would be difficult to assess; secondly, the sample may not be representative of the entire stock and the value weighted index increases the computational complexity without necessarily increasing the reliability of the indices which are meant to give an indication of property market price or rental movements. In practice, the difference between the value weighted and simple average is very small as prices of the same type of property tend to move together. In sub-markets for which similar indices are available from the Rating and Valuation Department (RVD), the Savills index and the corresponding RVD indices are in broad agreement although the RVD index is based on a different methodology and data.

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Commentary

The Savills indices are essentially valuation based indices which suffer from the usual problems of appraisal smoothing, a problem shared by all valuation based indices. However, due to the high transaction volume and the relative homogeneity of properties in Hong Kong appraisal smoothing problems are likely to be much less serious than for other valuation based indices such as the Russell-NCREIF in the US, the IPD index in the UK and the BOMA index in Australia. However, the first order serial correlations of the Grade 'A' office capital returns (first difference of the natural logarithm of the price indices) are a lot larger (about twice) than those of other sub-markets. A more in-depth study is required to discover whether the larger serial correlations for the Grade 'A' office sub-market is due to appraisal smoothing or is simply a characteristic of the market. It seems that the former is more likely as the transaction volume is a lot lower in this sub-market. Serial correlations tend to be lower for the more actively traded sub-markets.

The Savills indices have adopted a simple method of ensuring constant quality (the use of a standard unit as the reference point). The standard unit is loosely defined for the whole sub-market and therefore to some extent (probably very small) is subject to the individual valuer's interpretation. Periodic renovation and maintenance of the buildings also changes the quality of the properties.

Another problem related to changes in quality is that the properties age over time. As a result, quality is not constant. Bias could be introduced if the growth rates of newer and older buildings differ substantially. Casual observation suggests that the prices of newer properties grow at a faster rate than older properties. The difference is not substantial however unless the difference in age is very large. The ageing problem is partly resolved using a dynamic instead of a static sample. The average age of the sample is kept relatively constant as new properties are added upon receipt of an Occuption Permit and older properties are removed.

Constant quality property price and rental indices are difficult to construct due to the heterogeneous nature of the properties. In common with other property price and rental indices, the Savills indices suffer from shortcomings which are inevitable. However, cross validation with other data sources suggests that the Savills indices provide a reliable indication of price and rental movements over time. In some respects these indices are a lot more reliable than valuation based indices in other countries due to the special characteristics of the Hong Kong property market mentioned above.