



# AN INDEX APPROACH TO PROPERTY MORTGAGE SECURITY VALUATIONS?

To comply with the requirements of Basel II, banks frequently need to assess the market values of properties secured by mortgages. Can they rely on an index-based approach to value property?



**A** study undertaken at the University of Stellenbosch Business School used data and resources from a South African commercial property finance bank to assess whether index-based valuations produce statistically similar valuations to those given by professional valuers. It was found that in the case of the particular bank, index-based valuations provide statistically similar market values to traditional valuations.

Furthermore, index-based valuations provide consistent results when updating market values for properties with older historic valuations in the same way as for properties valued relatively recently.

An index-based approach to review market valuations may thus provide considerable cost savings.

## Comparing old and new approaches

The objective of this research was to examine the relationship between property valuations undertaken by professional valuers (traditional approach) and those produced through an index approach to updating property valuations for Basel II purposes. A second objective was to determine whether index-based valuations measure the same against traditional valuations when comparing those updated within a period of three years to much older ones.

From the literature on valuation accuracy, two methods were adopted for the purposes of this work, being the variance and regression approaches. In the study, these methods are interspersed with inferential statistics.

## Results

In terms of the regression method, a correlation coefficient of 0,9477 shows a strong positive relationship between the index-based and traditional valuations done by valuers. The coefficient of determination of 0,8925 showed that changes in index-based valuations were explained by changes in traditional valuations.

It was concluded that the index approach yielded consistent results between a category of relatively recent historic valuations (2007 - 2009) and that of older valuations (1996 - 2006). In the hypothesis testing conducted, there was virtually no evidence to infer that the deviation (difference) between index-based and traditional valuations is different for relatively recent and older valuation categories. On the basis of the methods used, it was concluded that there is strong evidence to infer that index-based valuations are statistically similar to traditional valuations.

The results provide strong support for the adoption of an index-based approach in reviewing property collateral security values for Basel II purposes for banks where index-based valuations and traditional valuation yield similar results as found in this study.

## A cheaper way

As the Basel II Accord calls for the frequent revaluation of real estate collateral and, at minimum, once a year, and does permit index-based valuation, significant costs can be saved by using index-based valuation. 

## USB LEADERS' LAB ONLINE

Other USB Leaders' Lab articles and new research may be found online at

[www.usb.ac.za/LeadersLab](http://www.usb.ac.za/LeadersLab)

### THIS RESEARCH WAS CONDUCTED BY:



Kgotso Mathole Dr Johan du P Smith

This is a summary of an article by Kgotso Mathole and Dr Johan du P Smith of the University of Stellenbosch Business School (USB) published in the *Investment Analysts Journal* No. 75 2012. The article is based on the MBA research report *The applicability of a valuation index approach in updating real property mortgage security values for Basel II purposes* conducted by Mathole under the supervision of Dr Smith. See full research report at <http://scholar.sun.ac.za>