

THE ACCURACY OF NIGERIAN PROPERTY VALUATIONS REVISITED

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ABSTRACT

There have been increasing criticisms of the ability of Nigerian valuers to undertake investment valuations in a reliable and consistent manner. Prior empirical studies that have tended to investigate this claim have however been criticized as the valuers employed in simulated valuations of recently sold properties were not paid and did not inspect the properties. Other studies have been accused of using forced sale values. This study sought to examine whether valuers who carried out fully paid and fully inspected open market valuation assignments were able to do so in a reliable and consistent manner, based on both regression and mean deviation tests. To achieve this aim, the paper employed secondary data of the 131 Federal Government privatised properties which were valued by Estate surveyors and valuers before being sold. Data were analysed with the use of mean deviation and regression analysis. The results confirm that even where property valuations are fully paid for and fully inspected and even where they do not involve forced sale values, they do not yet meet regression based and deviation based standards of reliability. The study concluded that there is the need for the valuation profession to enshrine a maximum acceptable margin of error of $\pm 13.16\%$ in the future valuation standards and ensure more rigorous training of valuers with a view to minimising the incidence of inaccuracy of investment valuations in the country..

Keywords: Valuation accuracy, Nigeria

1. INTRODUCTION

Researchers in the major Commonwealth markets (UK, Australia and Nigeria) as well as the US, have in the past twenty-five years been investigating into the degree to which valuations provide acceptable predictions of realized price and valuations of other firms. In the process of these researches, the concept 'valuation accuracy' has become topical. Valuation accuracy is the measure of the difference between prior valuations in relation to subsequently realized sales prices. Several studies have also focused on the related term 'valuation variance'. Variance is essentially a theoretical measure used to indicate the reliability of valuations, expressed as the distribution of valuations around the mean or median valuation that would result if a number of valuers valued the same property simultaneously (Havard, 2001).

A number of reasons have prompted the present relook at accuracy issues. Basically these summarize to the fact that the accuracy/variance debate has been inconclusive both in the UK and in Nigeria. In the UK there have been contradictory findings on accuracy/variance over the years. Researchers such as Hager & Lord (1985), Matysiak and Wang (1995) and Hutchison et al (1995) have found that valuations are inaccurate and inconsistent (especially if one adopts a maximum margin of error of $\pm 10\%$), while authors such as Brown (1985), IPD (1988, 1990, 1992, 1994, 1996, 2004), and Mokrane, (2002) concluded otherwise. The difference appears dependent on the statistical methodology employed. Whilst most of the high accuracy/variation advocates employed regression based procedures, most of the low accuracy/variation advocates employed mean/standard deviations. The inconclusive nature of the results has been exuberated by methodological problems in the

empirical studies carried out. The regression based studies for example have been criticised because of the heteroscedasticity problems with the regression procedure while the mean/standard deviation procedure has been plagued with the problem of an acceptable maximum bracket of error.

In Nigeria, there have also been contradictory accuracy/variance findings. Papers such as Ogunba (1997, 2003) found a high degree of inaccuracy and inconsistency in valuations while the Aluko (2000) study suggests a fairly high level of accuracy. A resolution of the inconclusive nature of Nigerian research in this area demands a revisit of the issues especially in view of the defective methodology hitherto adopted. In the Ogunba studies, the measurement of accuracy was hindered by the absence of a property data bank in Nigeria. His studies therefore resorted to employing a methodology of asking valuers to value recently sold properties (without being aware of sale prices). The valuations were then compared with the sale prices by a variety of tests. However, such a methodology has been criticized because the valuers did not inspect the properties and were not paid, issues which raise questions about the seriousness which valuers attached to the assignments. The subsequent Aluko (2000) study attempted to avoid this criticism in this methodology (still in the absence of a data bank), by comparing prior mortgage valuations with sales of foreclosed properties. The valuers in this case did inspect the properties and were paid. However, the improved methodology is still questionable because mortgage valuations and eventual foreclosure sales were not strictly contemporaneous (the issue of lagging) and the auction sale prices of the foreclosed properties might be suspected of being forced sale rather than open market values.

Issues like this raise two research questions: How can we make generalized conclusions on valuation accuracy/variance in the face of contradictory prior studies? The second question is: how can we undertake such accuracy/variance studies in emerging Asian and African countries like Nigeria which do not yet have databanks comparable to the IPD of the UK? The attempt in the paper is to address such questions. Nigeria is offered as an example of an emerging country facing the challenges of no data bank and which have a background of contradictory accuracy studies. The first of the above research questions is addressed in this paper by employing both regression based and margin of error based tests to address the comparison of valuations and sale prices (we have pointed out earlier that UK studies that employed regression tests have reached contradictory findings from those who employed margin of error tests). The second question is addressed by comparing valuations for the privatisation of Nigerian federal government assets with eventual sale prices which occurred within the same year (2006). The methodology in this case would overcome the criticism of earlier Nigerian studies: of valuers not inspecting the properties, valuers not being paid, sale prices lagging valuations and sale prices being forced sale rather than open market prices.

In addressing this aim, the paper is structured into five sections. The first is introductory. The second section focuses on the literature review. The third section provides information on the study area (Lagos state in Nigeria), while section four discusses the research method. In section five, the paper discusses the results from empirical investigations while section six provides recommendations and concluding comments.

2. REVIEW OF RELATED LITERATURE

In the UK, the valuation accuracy (or inaccuracy) debate was triggered off by Hager and Lord's (1985) work where they conducted a small sample survey of ten surveyors who were invited to value two properties. In one case the range of valuations was $\pm 10.6\%$ and in the other, it was $\pm 18.5\%$ suggesting a relatively low level of valuation accuracy relative to the $\pm 5\%$ benchmark adopted. This study was however, criticized by Reid (1985) who questioned the information and instructions given to the valuers and the quality of the response from the valuers to the request and the fact that the valuers were not given fees for the assignment (a reason which suggests that they may not likely carry out a thorough job). Moreover, the number of properties used for the study was considered to be too small for drawing representative conclusions.

Brown (1985) conducted a larger and much more rigorous study on a sample of 29 properties for which there were transaction prices and recent prior valuation figures. In the study, independent valuation firms were made to carry out the valuations of the subject properties. Both valuations and sale transactions took place between 1975 and 1980. In addition, both the valuations and the sale transactions were based on the RICS definition of open market value, which excluded special purchases, forced sales etc. The author used regression analysis to compare valuation estimates and sale prices on the 29 sampled properties. However, the number of properties sampled for the study is

considered too small to be able to draw unbiased conclusions.

IPD/Drivers Jonas (1988) also adopted a regression based procedure, but made use of a much larger sample size of 1,442 properties, all of which were sold between January 1982 and March 1988. Each of these properties had at least two (2) open market valuations prepared in respect of them in the two consecutive years preceding their sales, with all the valuations undertaken between January 1980 and December 1987. They analyzed these samples with the inverse of the IPD/Drivers Jonas procedure (the least square model regressed price on value). This study also found a high correlation of 93.4% between valuation estimates and transaction prices ($R^2 = 93$) suggesting a high level of valuation accuracy.

In 1990, IPD/DJ updated their study with a larger analysis of 2,400 properties for which there were transaction sales figures and valuation estimates. The study still observed high correlations between valuation estimates and sale prices as earlier found in their 1988 study, thus further supporting an UK (IPD/DJ, 1990) study. However, Lizieri and Vienmore-Rowland (1991) questioned the regression based statistical methodology adopted by IPD/Drivers Jonas and Brown for their studies drawing attention to its inherent flaws (a problem known as heteroscedasticity). Despite this criticism, IPD and Driver Jonas continuously updated their regression based studies in 1992, 1994, 1996, and lately 2004 with increased sample sizes, analysis period and range of statistical analyses employed. Results obtained consistently maintained the same basic findings concerning high levels of valuation accuracy. The Lizieri and Venmore-Rowland (1991) criticism exposed the statistical validity of studies of the IPD/DJ which employed simple regression analysis to find high levels of valuation accuracy (see, for example, Brown, 1992).

Matysiak and Wang (1995) employed standard deviations in their analysis of 317 sets of valuation estimates and transaction prices data covering the period of 1973 to 1991. Following the extensive statistical discussions and manipulations, the authors found that the probability of achieving a selling price within +/-10% of the valuation estimate was only 30%, rising to a probability of 55% within +/-15% of the valuation and 70% within +/-20% of the valuation estimates. The authors also went on to examine the propensity of valuers to overvalue in falling markets and undervalue in rising markets. The study noted that “.....given the indicative evidence for the significant impact of the bull/bear market environments in conditioning the valuation figures, more analysis is required in eliciting the relationship between valuer’s behaviour and changing market conditions” (Matysiak and Wang, 1995). However, whilst the Matysiak and Wang (1995) findings would appear to undermine those of other studies concerning high levels of valuation accuracy relative to transaction sales, the complexity of the statistical analyses adopted renders a full appreciation of the findings challenging as not too many people can handle some of the statistical tools employed in their study.

Hutchison et al (1995) surveyed five national valuers and five local valuers for each of 14 centres in UK, seeking valuations at no fee for a range of hypothetical retail, office and industrial buildings with particular characteristics in actual locations and with standard leases. Valuation variation (consistency) rather than accuracy (reliability) was examined. They found differences in the variance of valuation between national and local valuation firms (8.63% and 11.86% respectively for national and local firms). The authors discovered that over 80% of all the valuations produced a variation from the mean of less than 20%, which is a wider valuation variation than that suggested by Brown’s (1991) earlier study. The results of the study are however open to question as the valuers were paid no fee and moreover, the properties considered were hypothetical.

Mokrane (2002) addressed the twin issues of valuation accuracy and consistency in five European countries (UK, France, Sweden, Netherlands and Germany). In these countries, he considered time periods of 1990 to 2000 in UK; 2,000 properties over the period of 1999 to 2000 in France; 1,800 properties over the period of 1997 to 2000 of Sweden; 5,700 properties over the period of 1999 to 2000 in Netherlands; and 400 properties over the period of 1997 to 2000 in Germany. The accuracy tests made provision for the adjustment of previous valuation for market movements and capital expenditures and receipts that may have taken place between the valuation date and transaction date. With regards to accuracy, he came up with conclusions that there exists only a short “distance” between transaction sales and adjusted valuations in the respective countries, though valuation estimates differed from sale prices. With regards to consistency, he found that in most of these countries, the degree of variation was low and the change-in-valuer effect was statistically significant.

Bretten and Wyatt (2002) investigated the extent and possible causes of variance in property investment valuation for commercial lending purposes within UK using questionnaire survey circulated to 220 lenders, finance brokers, valuers, property companies and institutional investors

involved in commercial property valuation process in order to gauge professional opinion. They observed that the main cause of variance was the individual valuer's "behavioral influences" and that parties to a valuation instruction widely accept "the margin of error" principle. Their study concluded that variance can enter the valuation process at any stage, from the issuing of instruction letters and negotiation of fees through to external pressure being exerted on the valuer when finalizing the valuation figure. Although the study was circulated to 220 individuals involved in the commercial property valuation process, the study did not involve court officials. In addition, their survey failed to recognize the need for the use of real life valuation and sale figures.

Crosby, Devaney, Key and Matysiak (2003) identified whether the 2002 sales in the IPD Monthly index threw any light on whether the sale price was known before the completion date or if in their study of timing of the valuation and sale data in UK uses valuations and sales data from the sale was agreed before completion date. The study concluded that timing issues had been identified as one of the technical difficulties in producing definitive results on differences between prices and valuations.

Generally, as earlier noted, the UK review shows that there have been contradictory findings over the years. Researchers such as Hager & Lord (1985), Matysiak and Wang (1995) and Hutchison et al (1995) seem to suggest that valuations are inaccurate and inconsistent, while authors such as Brown (1985), IPD (1988, 1990, 1992, 1994, 1996, 2004), and Mokrane, (2002) reached opposing conclusions. The difference appears dependent on the statistical methodology employed. Whilst the high accuracy/variation advocates employed regression based procedures, the low accuracy/variation advocates employed mean/standard deviations. There are also heteroascidity problems with the regression based procedure and the problem of an acceptable maximum bracket of error with the standard deviation approach.

In Nigeria, Ogunba (1997) undertook the first empirical step at addressing the question of accuracy and variance in investment valuations in Nigeria. In the absence of a database of property valuations and sales, he resorted to the approach of requesting thirty Lagos based practicing estate surveying and valuation firms to carry out valuations of two residential properties earlier sold located at Victoria Island and Ikoyi respectively. The valuation estimates subsequently arrived at by the valuers was subjected to a number of statistical tests such as range, inter-quartile range, mean deviation and regression/correlation analysis. The result of the statistical tests showed that valuations were not a good proxy for market prices, for three reasons. First, the average variance between valuations and prices was far in excess of his adopted margin of error of +/-5%; the intercept in the regression equation was statistically distinguishable from zero and the slope statistically distinguishable from 1; and third, the range and inter-quartile ranges were unacceptably wide. The results of the study must be interpreted with caution because the properties were never inspected nor were the valuers paid for their services.

Aluko (2000) carried out a study on a larger scale with a focus on mortgage valuations and subsequent sale prices of foreclosed mortgage properties. In his study, Bank records of mortgage valuations conducted by fifty nine (59) estate firms in Lagos metropolis were examined. The sale prices of foreclosed properties were compared with their earlier valuation estimates and analyzed by means of regression/ANOVA. He came to a conclusion that valuations in Nigeria are a good proxy for price and that despite the anecdotal evidence to the contrary. However, even though the study sample size is larger than that in Ogunba & Ajayi (op. cit.) study, and even though the study overcame the problem of valuers not inspecting properties and not being paid, the sample size of fifty nine estate firms was still small relative to earlier UK studies. In addition, the sale prices of collateralized property adopted for cross-checking the result of the prior valuations were likely to be forced sale values which do not meet the definition of open market value in terms of time on the market. Finally, the study did not consider the time lags between the dates when the properties were valued and the dates such properties were eventually sold.

Ogunba (2003) expanded the coverage area of accuracy studies to a consideration of property valuation estimates and sale prices in the six states of south-western Nigeria. The approach adopted in the study was similar to the one adopted in his earlier work. A total of 171 estate surveying and valuation firms which constituted 75% of the sample frame of estate surveying and valuation firms in Southwestern Nigeria were employed for the study. Statistical tests such as range, inter-quartile range, mean deviation, regression analysis, and analysis of variance employed by the author confirmed his earlier work that valuation estimates were not good proxy for sale prices and also that valuation estimates of one firm were not good proxy of other firms. The study also extended to an examination of the causes of valuation inaccuracy under topics such as the conduct of valuations, and the

educational and practice structure of the valuation industry. Though the study improved on earlier studies in terms of sample size, scope of study area and number of properties valued, it is still open to the earlier criticism of sample properties not being inspected by the valuers prior to their valuation and neither were the valuers paid for their services.

Ogunba & Iroham (2009) addressed the recurrent problem of identifying the accuracy/consistency benchmark (a maximum acceptable margin of error), beyond which valuations should be considered negligent. This has been a problem with the use of standard deviations in accuracy research. Their work aimed at discovering such a margin of error perceptually in the Nigerian context (for stable market conditions) from the view points of both valuers and their clients. The research method involved the distribution of questionnaires to 195 estate surveyors and valuers in Lagos metropolis, and all the 25 commercial banks in the country. The perceptual responses demonstrated that the benchmark for valuation variance in Nigeria could range between $\pm 11.1\%$ (as suggested by valuers) and $\pm 13.16\%$ (as suggested by their mortgage valuation clients). It was noted that the appropriate implementation of such a margin of consistency in unstable market conditions must be cautious and flexible, taking into consideration the availability of data.

The above Nigerian literature points to the inconclusive and even contradictory nature of accuracy/variation research. The problem is exuberated by methodological problems. The earlier studies are plagued with problems of valuers not inspecting properties, valuers not being paid, values suspected of being forced sale values and values suspected of being influenced by lagging. Moreover in the use of standard deviations, the Ogunba study employed a margin of error of 5% while his later study employed 10%. These earlier maximum margins of error may have been too stringent as the Ogunba & Iroham (2009) study suggests a margin of up to $\pm 13.16\%$ is acceptable to clients. There is the need for new empirical investigation that takes this into account.

3. THE RESEARCH METHOD

To address earlier methodological problems created by the lack of a databank in Nigeria, this study focused largely on secondary data. The secondary data consisted of sale prices and prior valuation estimates of 131 privatised Federal Government properties. The data was obtained from the Ad hoc Committee appointed by the Federal Government for the sale as published in Punch Newspaper of 5th February, 2007. Data obtained were subsequently analysed with the use of mean deviations and regression analysis.

The summarized locations of the properties are as presented in Tables 1 and 2 below.

Table 1: Federal Government Landed Properties Recently Sold in Lagos State Locations

| Zones | Location | No of residential Properties | Percentage |
|-------|-----------------|------------------------------|------------|
| 1 | Apapa GRA | 26 | 20.0 |
| 2 | Ikeja GRA | 50 | 38.0 |
| 3 | Ijora GRA | 3 | 2.0 |
| 4 | Victoria Island | 52 | 40.0 |
| | Total | 131 | 100 |

Source: The Punch Newspaper, Monday February 5, 2007 pp 66-75

The 131 properties were sold through sealed bids with the bids opened at the same time. Both the valuation and sale were conducted within the same year (2006), which largely eliminated the problem of sale prices lagging valuations, yet the valuations were still within the definition of open market value as the properties were on the market for a reasonable period of time (about five months).

4. THE RESULTS

Table 4 presents a detailed comparison of sale prices versus valuation figures of all the 131 federal government landed properties in Lagos with percentage valuation to sale variances. Table 3 below was calculated from the Appendix table to show the accuracy of the valuations relative to realised sale prices in terms of cumulative margin of error.

Table 2: Distribution of the Federal Government Landed Properties Recently Sold/Privatised in Lagos State by Street Locations

| S/N | Property Address | No of Properties |
|-----|------------------------------------|------------------|
| 1 | Ayoola Coker St., Ikeja GRA | 3 |
| 2 | Docemo Road, Ikeja GRA | 1 |
| 3 | Ladoke Akintola St. Ikeja GRA | 18 |
| 4 | Esugbaya St. Ikeja GRA | 3 |
| 5 | Oba Akinjobi St. Ikeja GRA | 3 |
| 6 | Remi Fanikayode St. Ikeja GRA | 15 |
| 7 | Sasogbon St., Ikeja GRA | 5 |
| 8 | Sowemimo St. Ikeja GRA | 2 |
| 9 | Child Avenue, Apapa GRA | 4 |
| 10 | Danfodio Road, Apapa GRA | 7 |
| 11 | Hall Lane, Apapa GRA | 1 |
| 12 | North Avenue, Apapa GRA | 1 |
| 13 | Iseyin Road, Apapa GRA | 1 |
| 14 | Ogedengbe Road, Apapa GRA | 6 |
| 15 | Park Lane, Apapa GRA | 3 |
| 16 | Point Road, Apapa GRA | 2 |
| 17 | Akarigbore St , Victoria Island | 3 |
| 18 | Akin Adesola St, Victoria Island | 12 |
| 19 | Bishop Kale St, Victoria Island | 14 |
| 20 | Idejo St, Victoria Island | 5 |
| 21 | Kasumu Ekemode St, Victoria Island | 7 |
| 22 | Legico , Victoria Island | 1 |
| 23 | Oju-olokun St, Victoria Island | 4 |
| 24 | Saka Tinubu St, Victoria Island | 7 |
| 25 | Ijora GRA | 3 |
| | Total | 131 |

Source: The Punch Newspaper, Monday February 5, 2007 pp 66-75

Table 3: Cumulative Margin of Error in the Valuations versus Realised Prices of the 131 Privatized Properties.

| S/N | Margin of Error (%) | No. of Valuations within this bracket | Percentage No of Valuations within this bracket |
|-----|---------------------|---------------------------------------|---|
| 1 | 0 | 1 | 0.76 |
| 2 | ±5 | 19 | 14.5 |
| 3 | ±10 | 42 | 32.0 |
| 4 | ±15 | 49 | 37.0 |
| 5 | ±20 | 56 | 42.7 |
| 6 | ±25 | 64 | 49.0 |
| 7 | ±30 | 68 | 52.0 |
| 8 | ±35 | 77 | 58.7 |
| 9 | ±40 | 82 | 62.6 |
| 10 | ±45 | 93 | 71.0 |
| 11 | ±50 | 100 | 76.0 |

Table 4: Comparison of Valuation and Sale prices of the Federal Government Landed Properties in Lagos.

| Properties | Actual Sale Prices (N'000) | Prior Valuation Estimate (N'000) | Variance between Sale prices and Valuation Estimate (N'000) | Percentage Variance |
|------------|----------------------------|----------------------------------|---|---------------------|
| 1 | 36,440 | 42,000 | -5560 | -15 |
| 2 | 44,444 | 52,000 | -7556 | -17 |
| 3 | 80,000 | 90,000 | -10000 | -13 |
| 4 | 66,967 | 66,500 | 467 | 1 |
| 5 | 34,465 | 45,555 | -11090 | -32 |
| 6 | 31,049 | 49,000 | -17951 | -58 |
| 7 | 91,683 | 40,000 | 51683 | 56 |
| 8 | 59,925 | 71,200 | -11275 | -19 |
| 9 | 60,350 | 83,100 | -22750 | -38 |
| 10 | 83,785 | 93,380 | -9595 | -11 |
| 11 | 75,055 | 90,000 | -14945 | -20 |
| 12 | 66,428 | 30,000 | 36428 | 55 |
| 13 | 93,477 | 101,000 | -7523 | -8 |
| 14 | 58,546 | 100,055 | -41509 | -71 |
| 15 | 77,471 | 102,000 | -24529 | -32 |
| 16 | 82,741 | 80,500 | 2241 | 3 |
| 17 | 56,270 | 69,500 | -13230 | -24 |
| 18 | 71,500 | 24,900 | 46600 | 65 |
| 19 | 62,608 | 68,405 | -5797 | -9 |
| 20 | 71,535 | 67,414 | 4121 | 6 |
| 21 | 38,640 | 38,890 | -250 | -1 |
| 22 | 32,785 | 45,000 | -12215 | -37 |
| 23 | 35,383 | 40,000 | -4617 | -13 |
| 24 | 30,536 | 40,000 | -9464 | -31 |
| 25 | 90,620 | 130,000 | -39380 | -43 |
| 26 | 77,339 | 71,970 | 5369 | 7 |
| 27 | 59,500 | 85,000 | -25500 | -43 |
| 28 | 118,391 | 171,000 | -52609 | -44 |
| 29 | 41,007 | 48,950 | -7943 | -19 |
| 30 | 41,007 | 45,000 | -3993 | -10 |
| 31 | 41,650 | 60,000 | -18350 | -44 |
| 32 | 40,765 | 43,656 | -2891 | -7 |
| 33 | 41,132 | 47,500 | -6368 | -15 |
| 34 | 43,840 | 47,500 | -3660 | -8 |
| 35 | 41,536 | 14,341 | 27195 | 65 |
| 36 | 42,135 | 45,000 | -2865 | -7 |
| 37 | 42,640 | 48,000 | -5360 | -13 |
| 38 | 44,681 | 54,000 | -9319 | -21 |
| 39 | 43,619 | 56,000 | -12381 | -28 |
| 40 | 41,575 | 45,500 | -3925 | -9 |
| 41 | 46,509 | 55,000 | -8491 | -18 |
| 42 | 42,703 | 44,100 | -1397 | -3 |
| 43 | 30,206 | 90,900 | -60694 | -201 |
| 44 | 45,769 | 66,000 | -20231 | -44 |
| 45 | 45,769 | 66,000 | -20231 | -44 |
| 46 | 54,856 | 70,000 | -15144 | -28 |
| 47 | 42,105 | 55,000 | -12895 | -31 |
| 48 | 46,164 | 74,500 | -28336 | -61 |
| 49 | 38,351 | 81,500 | -43149 | -113 |

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|-----|---------|---------|--------|------|
| 50 | 112,425 | 150,000 | -37575 | -33 |
| 51 | 45,000 | 50,000 | -5000 | -11 |
| 52 | 45,000 | 56,000 | -11000 | -24 |
| 53 | 15,000 | 22,000 | -7000 | -47 |
| 54 | 25,000 | 27,400 | -2400 | -10 |
| 55 | 26,000 | 24,000 | 2000 | 8 |
| 56 | 32,900 | 40,000 | -7100 | -22 |
| 57 | 26,138 | 26,250 | -112 | 0 |
| 58 | 26,231 | 27,250 | -1019 | -4 |
| 59 | 26,485 | 27,250 | -765 | -3 |
| 60 | 25,610 | 40,000 | -14390 | -56 |
| 61 | 26,880 | 38,850 | -11970 | -45 |
| 62 | 69,915 | 77,201 | -7286 | -10 |
| 63 | 48,000 | 48,651 | -651 | -1 |
| 64 | 35,000 | 46,000 | -11000 | -31 |
| 65 | 30,000 | 31,000 | -1000 | -3 |
| 66 | 19,500 | 23,000 | -3500 | -18 |
| 67 | 17,550 | 25,000 | -7450 | -42 |
| 68 | 17,640 | 25,000 | -7360 | -42 |
| 69 | 17,190 | 24,150 | -6960 | -40 |
| 70 | 30,936 | 30,000 | 936 | 3 |
| 71 | 65,167 | 70,000 | -4833 | -7 |
| 72 | 31,957 | 60,000 | -28043 | -88 |
| 73 | 27,409 | 60,000 | -32591 | -119 |
| 74 | 64,720 | 120,000 | -55280 | -85 |
| 75 | 26,660 | 35,000 | -8340 | -31 |
| 76 | 109,273 | 115,000 | -5727 | -5 |
| 77 | 80,116 | 86,000 | -5884 | -7 |
| 78 | 136,239 | 142,000 | -5761 | -4 |
| 79 | 87,000 | 142,730 | -55730 | -64 |
| 80 | 66,000 | 123,750 | -57750 | -88 |
| 81 | 70,000 | 85,000 | -15000 | -21 |
| 82 | 66,000 | 68,000 | -2000 | -3 |
| 83 | 103,000 | 55,000 | 48000 | 47 |
| 84 | 101,830 | 125,000 | -23170 | -23 |
| 85 | 105,096 | 112,000 | -6904 | -7 |
| 86 | 95,445 | 100,800 | -5355 | -6 |
| 89 | 101,830 | 180,000 | -78170 | -77 |
| 90 | 101,830 | 107,100 | -5270 | -5 |
| 91 | 101,830 | 173,418 | -71588 | -70 |
| 92 | 62,330 | 58,000 | 4330 | 7 |
| 93 | 57,727 | 68,100 | -10373 | -18 |
| 94 | 55,911 | 60,000 | -4089 | -7 |
| 95 | 65,911 | 65,000 | 911 | 1 |
| 96 | 56,254 | 86,253 | -29999 | -53 |
| 97 | 66,388 | 73,000 | -6612 | -10 |
| 98 | 52,662 | 80,000 | -27338 | -52 |
| 99 | 51,758 | 80,000 | -28242 | -55 |
| 100 | 56,306 | 58,500 | -2194 | -4 |
| 101 | 61,821 | 63,000 | -1179 | -2 |
| 102 | 69,145 | 100,000 | -30855 | -45 |
| 103 | 67,974 | 70,140 | -2166 | -3 |
| 104 | 58,190 | 86,000 | -27810 | -48 |
| 105 | 61,171 | 85,000 | -23829 | -39 |

| | | | | |
|-----|---------|---------|---------|------|
| 106 | 42,730 | 75,000 | -32270 | -76 |
| 107 | 42,230 | 61,570 | -19340 | -46 |
| 108 | 42,230 | 61,570 | -19340 | -46 |
| 109 | 39,600 | 36,000 | 3600 | 9 |
| 110 | 39,000 | 42,130 | -3130 | -8 |
| 111 | 56,630 | 60,000 | -3370 | -6 |
| 112 | 64,970 | 70,000 | -5030 | -8 |
| 113 | 56,000 | 70,000 | -14000 | -25 |
| 114 | 48,540 | 64,100 | -15560 | -32 |
| 115 | 65,000 | 67,200 | -2200 | -3 |
| 116 | 45,000 | 55,750 | -10750 | -24 |
| 117 | 45,000 | 63,750 | -18750 | -42 |
| 118 | 473,000 | 701,010 | -228010 | -48 |
| 119 | 45,000 | 67,500 | -22500 | -50 |
| 120 | 39,000 | 50,000 | -11000 | -28 |
| 121 | 39,700 | 50,000 | -10300 | -26 |
| 122 | 38,500 | 90,850 | -52350 | -136 |
| 123 | 35,700 | 111,010 | -75310 | -211 |
| 124 | 36,340 | 99,010 | -62670 | -172 |
| 125 | 74,904 | 187,010 | -112106 | -150 |
| 126 | 61,932 | 185,010 | -123078 | -199 |
| 127 | 74,659 | 187,010 | -112351 | -150 |
| 128 | 78,474 | 187,010 | -108536 | -138 |
| 129 | 101,537 | 255,010 | -153473 | -151 |
| 130 | 14,300 | 20,000 | -5700 | -40 |
| 131 | 64,400 | 87,000 | -22600 | -35 |

Table 3 shows that only 32% of the valuation estimates were within ±10% of the target selling price as against the 30% obtained in the UK by Blundell and Ward (1997). The 32% is also a far cry from the 70% of valuation estimates observed in the UK study of Baum et al (2001).

Taking a ±10% variance as the norm, a 32% success was recorded in this study which is also a far cry from 90% achieved by Baum et al (2001) in their 2000 study and also 59% in 1983 in UK.

The valuations and prices presented in the Appendix were also compared by means of regression analysis, producing the following results:

$$P = 13,830.677 + 0.904V; R^2 = 0.817 \dots\dots\dots (1)$$

For valuations to be a suitable proxy for prices, the intercept of the regression equation should be statistically indistinguishable from zero and the slope statistically indistinguishable from one. In the above case, the intercept (13,830.677) is considerably far from zero, notwithstanding that the slope is quite close to one. We accordingly conclude on the evidence of regression analysis that valuations in the privatisation exercise were not a suitable proxy for realised prices.

5. CONCLUSION AND RECOMMENDATIONS

Based on the analysis of valuations and sale prices of the 2006 privatised federal government properties, we conclude that even where valuers inspected properties, were paid for such assignments, sales prices were not forced sale values and the lag between valuations and sale were not too long, valuation estimates in the study area cannot be described as good proxies for market sale prices. Evidence in this regard was secured from both mean deviation tests and regression analysis.

This result gives reason for concern, especially since the variance between valuation estimates and realised sale prices were found to be particularly large. The results from mean deviation analysis showed that most of the mean values did not fall within thirty percent of the selling prices. In fact, the closest mean deviation of valuations from market price for all the properties was ±32.44%. This represents an unacceptably high degree of inaccuracy relative to ±5% adopted by Hager and Lord (1985) and by Ogunba (1997) and also relative to ±10% adopted by Ogunba (2003). It also represents

a very high degree of inaccuracy relative to the maximum of error of $\pm 13.2\%$ adopted for this study. The results from regression analysis corroborate the results from mean deviation analysis with a regression intercept of 13,830 naira which is very statistically distinguishable from zero. The implication of this is that valuers in Lagos are not yet interpreting their markets with anything close to accuracy of valuers in such property markets as those of Britain. Certainly, an opportunity for further research would involve investigating into reasons for the marked disparity.

The way forward must involve stemming the unusually high level of inaccuracy. The Nigerian valuation regulatory bodies: the Nigerian Institution of Estate Surveyors and Valuers (NIESV) and the Estate Surveyors and Valuers Registration Board of Nigeria (ESVARBON) would need to take a number of urgent corrective actions. The different types of corrective actions have not been discussed in this paper, but a number of useful actions have been suggested in recent Nigerian literature. First, Iroham & Ogunba (2009) have suggested that a mandatory maximum margin of error of $\pm 13.2\%$ should be enforced for stable market conditions beyond which valuers should be considered negligent. This may be necessary because once a valuer is aware of the existence of such accuracy benchmarks; he would be more inclined to undertake serious market study and less inclined to hide under the cloak of a valuation estimate being an opinion of value. A second direction of corrective action has to do with more rigorous training of valuers with a view to minimising the incidences of unreliability and inconsistency of investment valuation in the country (Ogunba and Ojo (2007)). Third, there should be the enforcement of the use of valuation standards. Ajayi (2008) has the following comments in this regard:

Bank managers have noted widely diverging mortgage values for the same property ... Valuation standards must be part of the solution to inaccuracy and variation because they have to do with the institution of best practice quality and consistency. The absence of standards in any profession is an invitation to contradiction and variation among professionally prepared valuation estimates which would lead to confused and disappointed clients. Certainly no profession can afford to disappoint its clients. The valuer and his clientele operate in an increasingly global village and therefore the standards followed must be transit from being national to global..... No enforcement mechanism exists in the IVS for its standards. The IVSC is not a regulatory body and it has no ability to sanction any entity or valuer for breach of its standards. Any enforcement of standards by sanctioning of valuers must be done by regulatory bodies of individual States, or by self-regulating professional organizations., The NIESV and ESVARBON do have enforcement capabilities and it is suggested that they use them.

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