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Is Opportunistic Investing Rewarding? – A Study of United Kingdom Unlisted Funds

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Abstract
This study primarily investigates the impact of extreme financial leverage on UK unlisted property fund performance over a 11 year period, 2004 to 2014; accordingly the research problem is addressed applying a panel auto regression to an extended sample provided by the IPD Property Fund Vision Handbook covering funds information over a complete property cycle from 2004 to 2014. The results provide strong evidence in support of the traditional theory of capital structure asserting that financial leverage is a significant determinant of firm performance. A significant positive relationship is found between Leverage and performance of core and value added funds over the cycle but interestingly a significant negative association is seen for opportunistic funds as they underperformed through the cycle. Consequently, it is concluded that fund value may be enhanced by debt finance but must be kept at minimal levels, as an optimal debt finance level seems to exist considering the behaviour of Opportunistic funds over the investigated period. Key to the deduction is that irrespective of investment style (gearing intensity) through the cycle, performance persistence seems to sum the success or failure of UK unlisted property funds as lagged return showed a significant positive relationship in all regression results. Therefore the question of whether an unlisted fund persists in performance becomes even more decisive in determining how investors should select funds and develop investment strategies.
Keywords: Performance, Leverage, Value added, Opportunistic, Unlisted funds

1.0 INTRODUCTION

1.1 BACKGROUND OF STUDY

Property investment for many is a complex process; from history, investments through a domestic market have been the commonest approach to achieve exposure to this dynamic investment class. Even so, since the mid 1990's with the introduction of new investment mediums significant growth is being recorded in number and aggregate size of listed and unlisted property funds. This growth has helped facilitate growing cross border investment in Europe and across the world (Hoesli & Lekander, (2008). With these new avenues, more and more investors are using third party managers or indirect vehicles to achieve well-balanced domestic and international property exposures. The unlisted fund market also provides investors with the facility to cut specific risk in their exposure property investments, particularly as the same capital is shifted into a larger portfolio of assets enabling them enjoy the same economies of scale gained by larger investors with more capital. Baum & Farrely (2009) highlight that increasing in popularity; unlisted funds currently is the preferred conduit for investors globally and predominantly in Europe as more investors are now looking to invest outside their own domestic market.

In the United Kingdom, the private property sect has seen tremendous growth reaching up to £23billion in 2001 even as limited partnerships alone have grown in gross assets as much as from £1billion to £13billion in 10 years between 1996 and 2006. Further showing the extent of the development in this industry today there is over £4billion in the top UK unauthorized property unit trusts and up to £3billion in the top limited partnerships (Banfield, 2014 and Baum, 2011) while in Europe INREV(2011) reports that the European non-listed real estate industry has raised up to an aggregate of £47.3 billion.

The growth of this sector further allows its sponsors access high-quality managers to help gain exposure to local and international markets, achieve a desired level of diversification and risk diminution that normally would be difficult investing directly as they may be faced with handling information asymmetry issues investing in an overseas market.

The property market of the United Kingdom is the largest, most liquid and most transparent of the European property markets and the development of indirect property investment vehicles has reached further than in any other European country.

In performance terms, arguably there is sprouting evidence that financial gearing acts as a major performance driver for these investment vehicle especially taking to bearing the advantages of better utilizing the tax benefits. Moreover, the issuance of debt is a pointer that fund managers are confident of the firm's ability to repay while financial leverage greatly causes variability in returns hence adding to the firm's beta (financial risk). Although in a low interest rate environment, it appears as a free lunch as the return on equity of geared property investments exceeds well the superficial risk of property investments (Pandev, 2008).

The proportion of debt and equity mix in a firms financing investment proposal has been a topic of

exhaustive theoretical modelling and empirical investigation over the years in mainstream finance literature where its findings have implications on corporate performance. Thus, in examining the fund management industry and how its financing decisions affect firm performance, we track fund performance over a complete property cycle and examine empirically the impact of Financial Leverage on ex post performance of non-listed property investment vehicles in the United Kingdom.

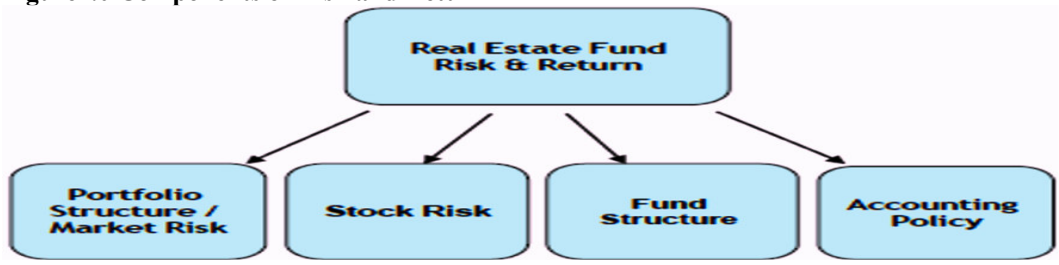
The rest of the paper is designed as follows. Section 2 reviews literature connected to performance of the fund management industry. The data and functional form are introduced in Section3, while Section 4 presents and analysis the results. Finally, Section 6 makes recommendations and concluding remarks to the study.

2.0 LITERATURE REVIEW

Blundell, et al (2005) in the article managing portfolio risk in real estate, holistically assess a cross section of UK institutional funds, to identify the sources of risk and return in stock level commercial property portfolios. Their findings confirm the efforts of Farrelly & Matysiak, (2013) and Baum & Farrelly, (2009) that identify the sources as market, stock, fund structure and accounting policy.

They explain that market risk emanates from segments to which the portfolio is exposed, stock risk are the risk continuum from ground rent to speculative developments, age, structure, income quality and diversification while fund structure refers to financial leverage(floating rate/fixed rate debt, collaterization), vehicle characteristics (age, structure, fees, fiscal efficiency and public market volatility if listed.

Figure1.0 Components of Risk and Return



Source: Baum and Farrelly, 2009

The capital structure of property companies is largely a relatively under researched area in the property literature. Nevertheless capital structure determinants for general business enterprises have been debated for many years representing a major unsolved area in corporate finance literature. Michalas et al (1999) put to test the capital structures of small UK firms and resolve that size and gearing is positively related in agreement with Frank & Goyal (2004). They also note that profitability and gearing are negatively which is consistent with the pecking order theory and in line with Frank & Goyal (2004).

Fama and French (2002) argued that, due to their level of diversification, larger firms are expected to have less volatile earnings, which in return induce a higher Leverage ratio. Rajan and Zingales (1995) stated that leverage increases with size because larger firms are better diversified and have a lower probability of being in financial distress; lower bankruptcy costs enable them to take on more leverage.

Rajan and Zingales (1995) showed that growth opportunities are significantly negatively associated with leverage, which is consistent with Frank and Goyal (2004); on the contrary, Hall et al. (1999) indicated a positive relationship between growth opportunities and gearing ratios at one with Bevan and Danbolt (2004).

Morri (2008) concludes that since capital structure literature on real estate companies and in particular REITS largely is under researched and even if the specific characteristics of the dynamic industry provides good prospects to put to test proven empirical theories; “property assets when fully in operation are considered relatively low in volatility and easily managed”. Hence chances for errors are as a result narrow and investors have better supervisory power thus greatly reducing the probable agency trouble connecting equity and debt holders.

However Geltner and Miller (2001) explain the main consequence is that an improved quantity of debt can be lent against the value of the subject asset thus property investments should be characterised by high debt to loan value in contrast with conventional business corporations.

Closely related to this particular study is the work of Farrelly and Matysiak (2013) who study the drivers of UK unlisted property funds using a panel modelling methodology their findings revealed a striking asymmetric influence of employing debt finance in unlisted property funds.

Heuvel & Morawski (2013) in line with Fuerest and Matysiak(2009, 2011) based on a panel data analysis showed empirically that leverage boosted performance of German funds in good times and during post recovery though more geared funds were not showing signs of underperformance in a falling market. Shilling and Wurtzebach (2010) classify a set of direct real estate funds on the basis of their realized returns into core, value-add, and opportunistic funds, and conduct a principal component analysis to identify the factors that significantly differentiate the performance of the funds across the three style categories. They find that leverage

and market conditions are the two most significant determinants of relative performance. Baum et al. (2011, 2012) in Alcock et al (2013) suggest that "leverage may not be viewed as a suitable long-term strategy for delivering returns in excess of core returns". In their work they highlight that leverage and market beta are highly central in the justification of cross sectional fund returns but further explain that leverage largely appears to make a negative influence on fund performance. Nevertheless, their outcome is grounded on the situation on the use of a rather small sample examined over a limited period of time.

Anson and Hudson- Wilson (2003) agree also that leverage is an important determinant of private equity fund performance and should be used, albeit in moderation and accountably, in order to contribute significantly to performance.

3.0 METHOD

The study is carried out using a panel data linear regression model where the dependent variable is rate of return and independent variables as Fund structure(financial leverage) and ex-post return of 63 United Kingdom Non-Listed funds; evaluated over a complete property cycle (2004- 2013). To determine the relationship between the variables a correlation matrix will be employed and to determine the degree of significance and impact of the independent variables on firm performance the study considers both the pooled and fixed effect model estimation technique.

3.1 THEORETICAL FRAMEWORK

The traditional theory of capital structure postulates that debt capital is cheaper than equity and as such a corporation can increase its value by borrowing up to a reasonable limit. This shows that an optimal level of leverage or gearing ratio exists. It also asserts that there exist a significant relationship between leverage and firm performance value in a company. The theory also posits that there exist a negative relationship between leverage and performance.

Per= F(Leverage)

$Per = \beta 0 + \beta 1 Lev + Z + \varepsilon t$

Where "per" represents firm performance and "Lev" is leverage. From equation 3.1 the traditional theory assert that "Lev" should be statistically significant in determining firm performance "per".

$Return = \beta 0 + \beta 1 Leverage + \beta 2 Lagged\ Return\ \varepsilon t$

The model above shows that firm's performance depends on capital structure and macroeconomic variables. Where "ROI" represents returns on investment (a proxy for firm performance), "LEVERAGE" captures the gearing level of firms, A negative relationship between capital structure and returns on investment is expected. This is evident from the fact that interest is paid on the debt and this tends to reduce firm performance.

Also, lagged returns on investment are expected to be positively related to current returns on investment.

Leverage $\beta 1 > 0$ Lagged Returns $\beta 2 > 0$

4.0 DATA PRESENTATION, ANALYSIS AND INTERPRETATION

This segment presents and analysis the descriptive statistics, the correlation matrix and empirical results on the impact of leverage on unlisted property funds' performance in the United Kingdom.

4.1 Distribution of Fund values by investment style at 2014

Table4.1 visibly points that the composition of core plus and opportunistic funds occupy a comparatively lower size in the United Kingdom fund universe. It may show that high gearing levels may not be highly regarded by their fund managers with core funds which are lower in their risk profile taken a huge proportion of the United Kingdom non listed property funds composition.

Table 4.1 Distribution of Fund Value by Investment Style

	Leverage (Debt/GAV in %)	Total Number	Share by Percentage
Core Funds	0-30	49	77.7%
Value added (Core Plus) Funds	30-65	7	11.11
Opportunistic Funds	65 and above	7	11.11

4.2 STATISTICS FOR ANNUAL TOTAL RETURNS AND LEVERAGE

This table 2.0 tenders vital statistics on the examined unlisted funds. It shows fund total return (in percentage terms per annum and leverage which is measured as the ratio of debt to gross asset value in percentage terms across the three investment styles spectrum of the unlisted fund industry.

Table 4.2 Sample Statistics of Total return and Leverage across Fund Styles (Panel A-D)

Panel A Full Study period 10year Fund Statistics (2004-2013)

Funds	Variable	Mean	Std.Dev	N
Core	Total Return	4.788	1.72	49
	Leverage	9.45	14.28	49
Value-add	Total Return	8.70	4.70	7
	Leverage	31.23	15.19	7
Opportunistic	Total Return	-0.675	8.48	7
	Leverage	86.55	17.25	7
All Non-Listed Fund	Total Return	4.35	3.92	60
	Leverage	33.25	22.70	60

Panel B 5year Fund Statistics (2004-2008)

Funds	Variable	Mean	Std.Dev	N
Core	Total return	6.19	2.46	49
	Leverage	7.4	8.4	49
Value-add	Total return	8.36	6.22	7
	Leverage	39.51	47.2	7
Opportunistic	Total return	1.61	10.12	7
	Leverage	79.13	61.10	7
All non-listed fund	Total return	5.67	4.70	60
	Leverage	20.01	21.72	60

Panel C 3Year Fund Statistics (2009-2012)

Funds	Variable	Mean	Std.Dev	N
Core	Total Return	5.67	2.18	46
	Leverage	7.70	14.50	46
Value-add	Total Return	8.90	6.12	7
	Leverage	40.23	40.01	7
Opportunistic	Total Return	1.61	10.12	7
	Leverage	84.57	17.90	7
All	Total return	5.52	4.57	60
	Leverage	20.27	23.21	60

Panel D 12 months Fund Statistics (2013-2014)

Funds	Variable	Mean	Std.Dev.	N
Core	Total Return	9.11	2.95	46
	Leverage	10.01	6.64	46
Value-add	Total Return	11.90	9.43	7
	Leverage	46.37	12.18	7
Opportunistic	Total Return	2.48	12.00	7
	Leverage	99.01	24.22	7
All non-listed fund	Total return	8.63	6.03	60
	Leverage	24.64	31.42	60

Panel A of Table 4.2 indicates that the average standard deviation of the total returns across all three fund styles was 3.92%. Consistent with the risk profile of the examined non listed funds, core funds had the lowest variability with a standard deviation of 1.72% followed by value added funds and opportunistic funds with 4.7%% and 8.4% respectively.

Given the underperformance of opportunistic funds in terms of average total returns it appears that the risks incurred by investors who chose to deploy their funds in this investment medium where not rewarded not contrary to the elaborated risk-return relationship emphasized by prominent academic scholars and researchers; as opportunistic funds displayed higher volatility as measured by there clearly higher Standard deviation figures throughout the cycle.

High return variability appears not to coincide with higher returns. This appears to hold in earlier sub-period (panel B) nut seems to be reversed in panel C. The average leverage across all funds as measured is 33.25% which indicates that overall UK non-listed funds appears to be medium risk takers although a higher part of the population operate a core investment style with 77.7% as shown in earlier analysis. Moreover again

consistent with the risk profile core funds show to be very low risk takers with 9.45% on average, value added with 39.23% and opportunistic funds grabbing 86.55% of debt finance. This relationship remains consistent throughout all periods from Panel A-C.

4.3 CORRELATION ANALYSIS

A fundamental predicament with multiple regression analysis is that of multicollinaerity, which occurs when there are too great a linear association between variables to permit the identification of the separate influences of the explanatory variables on the dependent variable (Leishman 2003, p78). The implication of this is that when high correlation relationship is found between two explanatory variables care will be taken in the course of result interpretation. Before the commencement of the regressions the independent variables are tested for multi-collinearity by means of a correlation coefficient matrix. (Table 4.3)

Correlation analysis is carried out to find out the relationship between the determinants of capital structure and fund performance of the 63 sample UK Non listed property funds. The correlation is significant at 99% and 95% i.e. 0.01 levels and 0.05 levels. Importantly it should be noted that leverage impact testing is not done in the correlation analysis.

TABLE 4.3 CORRELATION COEFFICIENT MATRIX FORM CORE FUNDS

	TOTAL RETURN	LEVERAGE
Total Return	1	0.1041
Leverage		1

Source: Author, 2014

From the computed correlation matrix calculated to gain insight into the relationship between variables to be used in further analysis.

TABLE 4.4 CORRELATON COEFFICIENT MATRIX FOR VALUE ADDED FUNDS

	TOTAL RETURN	LEVERAGE
Total return	1	-0.2311
Leverage		1

From the computation above calculated to gain insight into the relationship between the research variables to be used in further statistical analysis. The results shows leverage exhibiting a positive relationship with fund performance while GDP and inflation produced a positive relationship.

TABLE 4.5 CORRELATION COEFFICIENT MATRIX FOR OPPORTUNISTIC FUNDS

	TOTAL RETURN	LEVERAGE
Total Return	1	-0.5914
Leverage		1

The computed correlation matrix is calculated to gain insight into the relationship between variables to be used in further analysis.

4.4 PANEL REGRESSION FOR NONLISTED FUNDS

4.4.1 CYCLE PHASE ONE: 2004-2007 (CORE FUNDS)

TABLE 4.6 PANEL REGRESSION RESULTS FOR CORE FUNDS FROM 2004-2007

Variables	POOLED		FIXED EFFECT	
	Coefficient	p-value	Coefficient	p-value
Const	-0.3278	0.16345	0.8840	0.00700***
LEVERAGE	0.1500	0.21360	0.1545	0.00100**
ROI(-1)	0.4780	0.01501**	0.0140	0.85034
R-squared	0.4563		0.6675	
Adjusted R^2	0.2424		0.5500	
P-value(F)	0.0090		0.0005	
Durbin-Watson	1.8500		1.9677	

Please note *, ** and *** correspondingly signifies 10%, 5% and 1%.

DATA INTERPRETATION

The table 4.6 presented shows the comprehensive results for core unlisted firms with pooled and fixed effects

run and evaluated.
Fitting the values to the model:
ROI=0.8840+0.154Leverage (-1) + 0.014 ROI (-1) .....equation 4.2

The R^2 shows that the regressors jointly account for 66.95% of variations in the performance of this Fund Style. The explanatory variables are jointly significant in the model and the Durbin Watson statistics indicates the absence of autocorrelation.

From the regressed fixed effect all, the explanatory variables are statistically significant in explaining changes in firm performance level. Leverage clearly has a positive effect on performance through the examined period (booming phase of the market). A 100% increase in leverage statistically should increase fund performance by 25.45%. The result conforms to prior expectations of a positive relationship between leverage and fund performance; conforming with other studies on fund financial structure by Fama & French (2002), Frank & Goyal (2004) and Baum & Farrelly (2009). The outcome of the regression also is in tandem with traditional finance theories on capital structure since leverage shows a significant impact on performance.

Past performance via Lagged return on investment has a positive and significant impact on firm performance. Showing statistical significance at 1% level; a 100% increase in lagged performance of opportunistic funds correspondingly should indicate a 2.1% increase in performance. Conforming with research by Kaplan and Schoar (2005), Carhart et al. (2002), Hahn et al. (2005) and Tomperi (2010) who elaborate on persistence of fund returns confirming that it is a guide and indicator for future fund success or failure.

4.4.2 CYCLE PHASE TWO: 2007- 2010 (CORE FUNDS)

TABLE 4.7 PANEL REGRESSION RESULTS FOR CORE FUNDS 2007-2010

Variables	POOLED		FIXED EFFECT	
	Coefficient	p-value	Coefficient	p-value
Const	-0.3821	0.17560	0.9040	0.03200***
LEVERAGE	0.1780	0.21620	-0.1315	0.07600**
ROI(-1)	0.4110	0.08501**	0.1270	0.09834
R-squared	0.4521		0.6705	
Adjusted R^2	0.3332		0.5470	
P-value(F)	0.0090		0.0004	
Durbin-Watson	1.8500		1.9677	

DATA INTERPRETATION

The table 4.7 presented shows the comprehensive results for core unlisted firms with pooled and fixed effects run and evaluated.
Fitting the values to the model:
ROI=0.3821+0.131Leverage (-1) + 0.127 ROI (-1) .....equation 4.2

The R^2 shows that the regressors jointly account for 67.05% of variations in the performance of this Fund Style. All the explanatory variables are statistically significant in explaining changes in firm performance level. Leverage clearly has a negative effect on performance through the examined period (bottomed out phase of the market).

A 100% increase in leverage statistically should decrease fund performance by 33.61%. The outcome of the regression is in tandem with traditional finance theories on capital structure because since leverage shows a significant impact on performance; but its impact in these phase explains decisively the risk return relationship operating in property investments.

Past performance via Lagged return on investment has a positive and significant impact on firm performance. Showing statistical significance at 1% level; a 100% increase in lagged performance of opportunistic funds correspondingly should indicate a 12% increase in performance. Conforming to research by Kaplan and Schoar (2005), Carhart et al. (2002), Hahn et al. (2005) and Tomperi (2010) who elaborate on persistence of fund returns confirming that it is a guide and indicator of future success or failure.

4.4.3 CYCLE PHASE THREE 2010-2013 (CORE FUNDS)

TABLE4.8 PANEL REGRESSION RESULTS FOR CORE FUNDS 2010-2013

Variables	POOLED		FIXED EFFECT	
	Coefficient	p-value	Coefficient	p-value
Const	0.2200	0.77345	0.1840	0.00600***
LEVERAGE	0.1550	0.26530	0.1445	0.0100**
ROI(-1)	0.4990	0.0111**	0.0140	0.85034
R-squared	0.2513		0.6875	
Adjusted R^2	0.2114		0.5200	
P-value(F)	0.0330		0.0005	
Durbin-Watson	1.3100		1.3677	

DATA INTERPRETATION

The table 4.8 presented shows the comprehensive results for core unlisted firms with pooled and fixed effects run and evaluated.

Fitting the values to the model:

ROI=0.220+0.144Leverage (-1) + 0.140 ROI (-1) .....equation 4.3

The R^2 shows that the regressors jointly account for 67.05% of variations in the performance of this Fund Style.

All the explanatory variables are statistically significant in explaining changes in firm performance level. Leverage clearly has a positive effect on performance through the examined period (rising phase of the market). A 100% increase in leverage statistically should increase fund performance by 14%.

Past performance via Lagged return on investment has a positive and significant impact on firm performance. Showing statistical significance at 1% level; a 100% increase correspondingly indicates a 1.4% rise in performance. Still in line with work done by Kaplan and Schoar (2005), Carhart et al. (2002), Hahn et al. (2005) and Tomperi (2010) who elaborate on persistence of fund returns confirming that it is a guide and indicator for future fund success or failure.

4.5.1 CYCLE PHASE ONE: 2004-2007 (VALUE ADDED FUNDS)

TABLE 4.9 PANEL REGRESSION RESULTS FOR VALUE ADDED FUNDS

Variables	POOLED		FIXED EFFECT	
	Coefficient	p-value	Coefficient	p-value
Const	-0.2288	0.18350	0.8950	0.01000***
LEVERAGE	0.1700	0.23310	0.2545	0.00000***
GDP	0.1600	0.54055	0.2417	0.60202
INFLATION	0.3222	0.25300	0.4450	0.00000***
RETURN(-1)	0.3380	0.01231**	0.0210	0.77034
R-squared	0.1558		0.7195	
Adjusted R^2	0.3125		0.3920	
P-value(F)	0.0450		0.0022	
Durbin-Watson	1.6400		1.8677	

DATA INTERPRETATION

The presented table (4.9) shows the estimated results for Value added non-listed firms with pooled and fixed effects run and evaluated. Fitting the values into the model:

ROI=0.8840+0.254Leverage (-1) + 0.021 ROI (-1) equation4.3

From the fixed effect regression all the explanatory variables are statistically significant in explaining changes in firm performance level. Leverage clearly has a positive effect on performance of value added funds through the economically buoyant period. A 100% increase in leverage will increase fund performance by 25.45% conforming to prior expectations of a positive relationship between leverage and fund performance.

This shows that over leveraging positively affects firm performance; similar to the outcome of the core funds' performance regression. This finding correlates with other studies on fund financial structure (Farrelly & Matysiak, 2013 and Baum & Farrelly, 2009). The findings also are linear with traditional finance theories on capital structure because firms capital structure has a significant impact on success or failure of these vehicles. Lagged return on investment has a positive and significant impact on firm performance. Showing statistical significance at 1% level; a 100% increase in lagged performance of opportunistic funds correspondingly should indicate a 2.1% increase in performance. Also in line with research by Kaplan and Schoar (2005), Carhart et al.

(2002), Hahn et al. (2005) and Tomperi (2010) examining persistence property fund returns as detailed in the literature review.

Furthermore the R^2 shows that the regressors jointly account for 71.95% of variations in the performance of the fund class (medium geared). The explanatory variables are jointly significant in the model and the Durbin Watson statistics shows the absence of autocorrelation.

4.5.2 Cycle Phase 2: 2007- 2010 (Value-added funds)

Table 4. 10 Panel Regression results for Value added funds 2007-2010

Variables	POOLED		FIXED EFFECT	
	Coefficient	p-value	Coefficient	p-value
Const	-0.1128	0.1565	0.8010	0.00700***
LEVERAGE(-1)	0.3530	0.46790	0.0995	0.00100**
ROI(-1)	0.8380	0.21601**	0.1849	0.85034
R-squared	0.5163		0.5475	
Adjusted R^2	0.2004		0.5010	
P-value(F)	0.0090		0.0005	
Durbin-Watson	1.8880		1.3377	

DATA INTERPRETATION

The table 4.10 presented shows the comprehensive results for core plus funds with pooled and fixed effects run and evaluated. Fitting the above values to the model:

ROI=0.112+0.195Leverage (-1) + 0.547 ROI (-1) .....equation 4.4

The R^2 shows that the regressors jointly account for 54.75% of variations in the performance of this investment Style. All the explanatory variables are statistically significant in explaining changes. Leverage clearly has a positive effect on performance through the examined period. A 100% increase in leverage statistically should increase fund performance faintly by 9%. Past performance via Lagged return on investment has a positive and significant impact on firm performance. Showing statistical significance at 1% level; a 100% increase correspondingly indicates a 1.4% rise in performance; in line with work done by Kaplan and Schoar (2005), Carhart et al. (2002), Hahn et al. (2005) and Tomperi (2010) who elaborate on persistence of fund returns confirming that it is a guide and indicator for future fund success or failure.

4.5.3 Cycle Phase Three: 2010-2013 (Value-added funds)

Table 4.11 Panel Regression Results for Value added funds 2010-2013

Variables	POOLED		FIXED EFFECT	
	Coefficient	p-value	Coefficient	p-value
Const	0.0500	0.10061	0.0040	0.00700***
LEVERAGE	0.0700	0.21360	0.3045	0.00100**
ROI(-1)	0.3850	0.0453***	0.2044	0.85034
R-squared	0.4563		0.6499	
Adjusted R^2	0.3424		0.4900	
P-value(F)	0.0070		0.0105	
Durbin-Watson	1.9820		2.4077	

DATA INTERPRETATION

The table 4.11 presented shows the comprehensive results for Value-added funds with pooled and fixed effects run and evaluated. Fitting the above values to the model:

ROI=0.050+0.304Leverage (-1) + 0.204 ROI (-1) .....equation 4.5

The R^2 shows that the regressors jointly account for 64.99% of variations in the performance of this fund Style. All the explanatory variables are statistically significant in explaining changes. Leverage clearly has a positive effect on performance through the examined period. A 100% increase in leverage statistically should improve fund return by 30.4%.

Past performance via Lagged return on investment has a positive and significant impact on firm performance. Showing statistical significance at 1% level; a 100% increase correspondingly indicates a huge 20.4% rise in performance, very aligned with results of Kaplan and Schoar (2005), Carhart et al. (2002), Hahn et al. (2005) and Tomperi (2010) who elaborate on persistence of fund returns confirming that it is a guide and

indicator for future fund success or failure.

4.6.1 Cycle Phase One: 2004-2007 (Opportunistic Funds)

TABLE 4.12 PANEL REGRESSION RESULTS FOR OPPORTUNISTIC FUNDS

Variables	POOLED		FIXED EFFECT	
	Coefficient	p-value	Coefficient	p-value
Const	2.1382	0.0000***	2.4902	0.0000***
LEVERAGE	-0.1482	0.0185**	-0.3559	0.0000***
ROI(-1)	-01712	0.0000***	0.2093	0.0006***
R-squared	0.4580		0.5491	
Adjusted R^2	0.3883		0.4540	
P-value(F)	0.0256		0.0224	
Durbin-Watson	1.5906		1.7220	

DATA INTERPRETATION

The presented table shows the estimated results for Opportunistic unlisted firms with pooled and fixed effects run and evaluated. Fitting the values into the model:

ROI=2.490+0.355Leverage (-1) + 0.209ROI (-1) equation4.6

The R^2 shows that the investigated variables jointly account for 54.91% of variations in opportunistic funds (highly geared) performance. The explanatory variables are jointly significant in the model and the Durbin Watson statistics shows the absence of autocorrelation.

From the fixed effect regression all, the explanatory variables are statistically significant in explaining changes in firm performance level. Leverage clearly has a negative impact on performance. A 100% increase in leverage will reduce fund performance by 35.59%. The result conforms to prior expectations of a negative relationship between leverage and fund performance. Apparently this shows that over leveraging negatively affects firm performance.

A reason for this operation of debt funding (excessive debt) reducing fund performance must be the compounding nature of interest rates on debt. Also the period of the global financial crisis had a transmittable effect on all sectors particularly as investments in property was its prime basis.

Nevertheless, the findings too are in tandem with traditional finance theories on capital structure because leverage has a significant impact on performance. Lagged return on investment has a positive and significant impact on firm performance. Showing statistical significance at 1% level, a 100% increase in lagged performance of opportunistic funds correspondingly should indicate a 20.93% surge in firm performance. This finding prominently matches research by Kaplan and Schoar (2005), Carhart et al. (2002), Hahn et al. (2005) and Tomperi (2010) who demonstrate persistence in fund returns as they conclude finding strong evidence of the positive impact of past performance on future performance amidst various measures in their work.

4.6.2 Cycle Phase Two: 2007- 2010(Opportunistic Funds)

Table 4.13 Panel Regression results for Opportunistic Funds 2007-2010

Variables	POOLED		FIXED EFFECT	
	Coefficient	p-value	Coefficient	p-value
Const	2.1621	0.0100***	2.0922	0.0000***
LEVERAGE	-0.1482	0.0185**	-0.1239	0.0000***
ROI(-1)	-01712	0.0000***	0.5983	0.0005**
R-squared	0.0080		0.6221	
Adjusted R^2	0.3343		0.4001	
P-value(F)	0.0206		0.5324	
Durbin-Watson	1.6776		3.0210	

DATA INTERPRETATION

The table 4.10 presented shows the comprehensive results for core plus funds with pooled and fixed effects run and evaluated. Fitting the above values to the model:

ROI=2.162+0.123Leverage (-1) + 0.598 ROI (-1) .....equation 4.8

The R^2 shows that the regressors jointly account for 62.21% of variations in the performance of this investment Style. All the explanatory variables are statistically significant in explaining changes. Leverage clearly has a negative effect on performance through the examined period. A 100% increase in leverage statistically should decrease fund performance moderately by 12.3%.

Past performance via Lagged return on investment has a positive and significant impact on firm performance. Showing statistical significance at 1% level; a 100% increase correspondingly indicates a 59% rise in performance. Still in line with work done by Kaplan and Schoar (2005), Carhart et al. (2002), Hahn et al. (2005) and Tomperi (2010) who elaborate on persistence of fund returns confirming that it is a guide and indicator for future fund success or failure.

4.6.3 Cycle Phase Three (2010-2013) Opportunistic Funds

Table 4.14 Panel Regression Result for Opportunistic Funds 2010-2013

Variables	POOLED		FIXED EFFECT	
	Coefficient	p-value	Coefficient	p-value
Const	0.1002	0.0000***	0.4002	0.0000***
LEVERAGE	-0.1222	0.0100***	-0.1559	0.0000***
ROI(-1)	-01122	0.0000***	0.2324	0.0006***
R-squared	0.4180		0.5071	
Adjusted R^2	0.5003		0.4340	
P-value(F)	0.3256		0.0274	
Durbin-Watson	1.2206		1.7720	

DATA INTERPRETATION

The table 4.14 presented shows the comprehensive results for core plus funds with pooled and fixed effects run and evaluated.

Fitting the above values to the model:

ROI=0.102+0.015Leverage (-1) + 0.507 ROI (-1) .....equation 4.9

The R^2 shows that the regressors jointly account for 50.7% of variations in the performance of this investment Style. All the explanatory variables are statistically significant in explaining changes. Leverage clearly has a negative effect on performance through the examined period. A 100% increase in leverage statistically should decrease fund returns by 15%. Past performance via Lagged return on investment has a positive and significant impact on firm performance. Showing statistical significance at 1% level; a 100% increase correspondingly indicates a 50.7% rise in performance. This outcome also matches work by Kaplan and Schoar (2005), Carhart et al. (2002), and Tomperi (2010) who demonstrate persistence in fund returns as they conclude finding strong evidence of the positive impact of past performance on future performance amidst various measures in their work.

5.0 CONCLUSIONS AND RECCOMMENDATION

This study has evaluated all 63 unlisted property funds in the United Kingdom, testing for the impact of fund managers adopted investment style on the resulting ex-post investment returns employing data over a complete property cycle from 2004-2013. Achieving this, the dynamic panel data approach of Arrello and Bond (1991) is used as adopted by the work of Farrelly & Matysiak, (2013) and Baum & Farrelly, (2009) is used taking into account the correlation that may exist between the lagged dependent variable and the error term.

The examination outcome confirms financial leverage as a statistically significant fund performance driver across all fund styles over the examined time scale (2004-2013) well in line with prominent research by Farrelly & Matysiak (2013), Geltner (2006) and conventional finance studies.

Valiantly the examination does not validate a negative relationship between financial leverage and fund performance; with financial leverage proving to be a significant variable affecting fund performance. Financial Leverage showed a positive impact on the performance of Core and Value added (Core plus) funds in periods of economic boom but a negative relationship with the actual performance of Opportunistic funds through all periods in the cycle. Indeed implying that there is an optimal level of leverage and gearing as a highly risky investment strategy should be held at medium levels giving keen attention to the economic climate (debt financing climate) and taking into consideration it is an investment in a volatile UK market.

The finding confirm that gearing can be very risky, primarily in the feverish ecstasy of a boom inevitably leading to a bust, but can also be very safe (through the cycle) where the loan and cash flows are constructive and held at minimal levels as currently practiced by 78% of the UK non-listed funds(Core and Value added funds)

Performance persistence seems to sum up the success or failure of UK unlisted funds over the examined period across all investment styles, irrespective of the degree of leverage and macroeconomic condition. Importantly this verifies the empirical evidence that historical performance contains some information about future performance and such information may be very imperative for investors and fund managers.

Hence a fund manager who achieved superior performance over a reference period tends to be

consistently successful. Accordingly, it should be expected that in predicting future performance of unlisted funds we should continue to see especially core funds outperforming opportunistic funds going objectively with the findings of this study.

The Study confidently recommends the following for fund managers and the fund management industry at large:

- Merely modifying leverage levels apparently does not indicate better performance; hence fund managers of currently highly leveraged unlisted property funds (opportunistic funds) in the United Kingdom must give more precedence to displaying investment skill to ensure Fund Success.
- Managers must rely more on their retained earnings to finance property investments projects, placing gearing as just the option of last resort.
- Since fund managers are chief actors in an active approach to fund management, investors should engage care in the selection of fund managers.
- A sterner capital regulatory environment should also be encouraged as a crucial tool in the armoury of financial institutions to prevent unprecedented occurrences as seen during the global financial crisis.
- Performance persistence has an important implication for researchers trying to understand the nature of markets. The question of whether an unlisted fund persists is decisive in determining how investors should select funds and develop investment strategies.

Although the UK Non listed property fund population, seem not to be fully given to high risk taking, the number growing in gearing levels appears to be on the rise. Thus, fund managers must adopt a more sensitive attitude to investment decision making; ever testing phenomenon rather than lamely accepting that high risk constantly will lead to high return; though gearing is only an implicit measure of one aspect of risk.

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