INREV RESEARCH & MARKET INFORMATION

INREV STYLE CLASSIFICATION
Revised Version

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INREV is the European Association for Investors in Non-Listed Real Estate Vehicles. Our aim is to improve the accessibility of non-listed real estate funds for institutional investors by promoting greater transparency, accessibility, professionalism and standards of best practice.

As a pan European body, INREV represents an excellent platform for the sharing and dissemination of knowledge on the non-listed real estate funds market. The association's primary focus is on institutional investors, although other market participants such as fund managers, investment banks, lawyers and other advisors provide additional support.

CONTENTS

FOREWORD

With great pleasure we present the new INREV Style Classification for the non-listed real estate funds industry.

The existing framework for style classifications developed by INREV in 2004 is based on leverage and target return. It was seen as a first-step guidance at that time, but increasing sophistication of the industry and the increased amount of data available on active funds has shown that a more comprehensive approach would be timely.

This definition of fund styles within the non-listed property funds market continues to be open to interpretation by investors and fund managers. This means that the understanding within the industry of the risk and return expectations for core, value added and opportunity funds lacks uniformity. At the end of 2007, INREV started an initiative to update the existing style classifications that proved not robust with changing market conditions and it was recognised that there was now much more data available to form a more enduring approach.

With the support of INREV members, the Styles Working Group was charged with revising this existing framework in order to classify the three styles which could not only provide a workable guidance to fund managers and investors but at the same time form an enduring and robust basis for the INREV Index provision when it is disaggregated by style.

This paper is the result of the long and hard work of the Styles Working Group, CASS Business School, Reading University and INREV members who have contributed with their time and expertise at workshops, through on-line feedback and in one-on-one interviews over the last 3.5 years.

A special thank goes to the members of the INREV Style Working Group, most of who have been involved with the project since the end of 2007:

Asli Ball, GIC Real Estate
Russell Chaplin (*Chairman*), Aberdeen Asset Management
Martin Eberhardt, Union Investment
Kierran Farrelly, CBRE Investors
Mahdi Mokrane, AEW Europe
Jens Völker

We hope this document will serve as a useful guide to this new INREV Style Classification, which we believe provides the industry with a robust, enduring and workable style classification.

Yours sincerely,

Michael Morgenroth
Chairman INREV

1 INTRODUCTION

INREV developed its first style framework in 2004; the two measures of target leverage and target internal rates of return (IRR) were a first guide for the industry to classify non-listed property funds as core, value added or opportunity.

At that time the model was not considered ideal but taking into account the level of development of the non-listed real estate funds industry and the information available this was seen as the best that could be achieved. It was recognised that the model would need to be refined in the future and this effort was prompted late in 2007 by shifting market conditions as the expected returns on real estate had fallen and debt markets, along with the contribution of leverage to return, had changed. The existing model also lacks important variables that define style which can now be taken into account with data being more widely available. At the same time it includes a variable, target return that assumes fund managers have correctly assessed the risk of their vehicle. Investors may have very different ideas of an appropriate target return for the bundle of risks, making the variable less suitable for style classification.

The classifications are important for the non-listed property funds industry as they help form the basis for investors and fund managers to distinguish between different investment strategies. They can also form the classifications for style sub-indices for the purposes of benchmarking, which is a priority for INREV in its aim to increase transparency in the non-listed real estate funds market.

The issues with the existing framework were first discussed by Dr Russell Chaplin, Aberdeen Investors and the INREV Research Committee Co-Chairman at that time, in his article for the INREV Quarterly Research Report 16 (August 2007) in which he set the benchmark for a revised framework to be 'workable, robust and enduring'. This article re-opened the debate on style classification and it was a main topic for discussion at an INREV workshop in London in November 2007. The INREV Styles Working Group was formed to steer the process and CASS Business School was initially commissioned to research the topic on INREV's behalf, in the second stage of the project Reading University took over to continue and finalise the work.

In 2009, INREV published the Fund Style Framework identifying a set of risk factors relevant for classifying real estate. The definition of fund risk factors in the Fund Style Framework is based on three broad risk categories:

– Fund activity,
– Vehicle characteristics and
– Portfolio composition.

The factors considered in the style sheet include –among others– the proportion of income producing to non-income producing properties in the fund, redevelopment activity, the loan-to-value ratio of the fund and the targeted number of assets and countries.

Reading University was commissioned to validate the risk factors and to identify the most important variables needed to classify non-listed real estate funds. Data was collected on more than 200 funds in the middle of 2010. This data was analysed with two objectives; first, to provide a classification of current funds in the INREV universe based on a multi-criteria clustering algorithm. Second, the estimation results were used in the development of the new INREV Style Classification as well as the new Style Classification Guide Tool, both of which are presented in this document.

The first results were presented and discussed during an INREV workshop in October 2010, followed by one-on-one interviews and an on-line member consultation. The idea of the likelihood of a fund belonging to a particular risk group or classification was introduced. The result of the risk factors validation showed that from the original set of risk factors presented in the Fund Style Framework, three variables are the most significant for fund classification.

This paper gives a brief overview why the existing style classification no longer serves its purpose, followed by an explanation of the rationale behind the idea of style classification and style classification based on a bundle of risks rather than on target returns and leverage. The subsequent section gives a summary of the testing and validation procedure and results of the risk factors presented earlier in the Fund Style Framework before finally presenting the new INREV Style Classification and the INREV Style Classification Guide Tool.

The new INREV Style Classification is based on the studies undertaken by CASS Business School and Reading University. In some cases, INREV takes a slightly different approach than suggested by these two research institutions but we do encourage you to read the full reports including the INREV Real Estate Fund Style Framework report and the white paper on 'Testing and Validating the INREV Fund Styles Framework', which are available for members on the INREV website, www.inrev.org

2 CLASSIFICATION AS A BUNDLE OF RISKS

The main function of style classification is to sort investments and funds into groups that are expected to share similar risk/return characteristics. At the most basic level, styles are broad product labels used to facilitate communication between fund managers and investors and help to distinguish between different investment strategies.

The existing style classification was introduced by INREV in 2004. Due to limited availability of data and low transparency of the non-listed real estate funds market, the model at that time had to be kept simple. The industry preferred to start with a basic approach and to be revised it in the future rather than to have no framework at all. The 2004 classification was a first step in the development of the styles classification and was based on two factors, which are target IRR and target gearing.

This approach however has proven not to work through the changing market conditions. The IRR and leverage objectives of funds proved to shift over time with the state of the market and availability of credit, leading funds to drift across the defined boundaries. INREV took the decision to revise the existing style classification with the aim to come up with a 'robust, workable and enduring' system of style classification. We therefore propose an evolution of the existing style framework in order to classify funds better in the maturing European non-listed property funds market. We do recognise that classifying style involves both quantitative and qualitative factors. However, to have a robust classification it is important that is based on measurable, quantitative factors.

This new set of classifications for style is based on the notion that style is the result of a bundle of risks. The two criteria currently used to define styles do not clearly expose all the risks associated with varying fund structures and strategies, although the use of leverage is clearly a major risk-increasing factor. There are many risks that impact the non-listed real estate funds market, due to the heterogeneity of real estate assets and the variety of management strategies that can be applied to them. However, INREV aims to focus only on those that are key determinants of styles. The INREV Real Estate Fund Style Framework (January 2009) set out risk factors that are most important when determining the style of a fund, with an emphasis on 'fund activity' derived from the manager's chosen strategy, the portfolio structure and composition.

Exposure to different risk factors may result in style categories that show different levels of risk over a time period. Or, exposure to different risk factors may also be expected to result in different patterns of return over time, determining the extent to which assets and funds do or do not correlate with each other.

A robust style classification is not, therefore, devoted to grouping funds into categories simply on the basis of their levels of target or expected returns for two reasons. First, a style may be defined by different variation in return over time and not by different levels of return and risk over time. Second, because styles are fundamentally about bundles of risks, the return in style framework should be used on the other side of the equation as a result of pricing of that risk, which is show below:

$$X + XR1 + YR2 + ZR3\ldots = IRR$$

We have based the new INREV Style Classification on the approach that the style should fundamentally be viewed as a bundle of risk factors while the return should be perceived as the result of the process.

If we take the view that style classification should fundamentally represent risk factors, the use of target IRR in style is a form of double-counting, and assumes that fund managers have correctly assessed the risk of their vehicles.

3 DETERMINING RISK FACTORS

The INREV Style Framework based style classifications on six risk factors with an emphasis on 'fund activity' alongside self-declared fund style by the fund managers to help identify the key characteristics of each category:

- Leverage
- Development exposure
- Income distribution as percentage of total return
- Country exposure
- Sector exposure
- Diversification

The framework retained the three-way classification of core, value added and opportunity as these classifications have traction in the industry and there is a clear preference to hold on to the existing simple classifications. The following descriptive styles definitions were used:

- **CORE**: A fund which invests mainly in income producing investments. The fund will use low leverage, have no or very low development exposure and generate a high proportion of return through income.

- **VALUE ADDED**: A fund which may invest in any property type and deliver returns from a balance of income return and capital appreciation. The fund may allocate part of its investments in development. Typically it will also invest in forms of active management, such as active leasing risk, repositioning or redevelopment to generate returns through adding value to the property. The fund will use moderate leverage.

- **OPPORTUNITY**: A fund which typically uses high leverage, has a high exposure to development or other forms of active asset management, and will deliver returns primarily in the form of capital appreciation. The fund may invest in any markets or sectors, and may be highly focused on individual markets or property types.

The INREV Vehicles Database does not hold all information for the six risk factors on the non-listed real estate funds in the database. Additional data was collected in the middle of 2010 to examine the six risk factors along the self-declared fund styles with the aim to identify clusters where funds with similar characteristics shared the same style, and where style, therefore, appeared to be valid.

The INREV Fund Style Sheet in Figure 01 (page 08) sets out the six risk factors that were considered to contribute to style. The order of the sheet reflects the thinking behind the principles of the style framework. In part A, the risk factors are set out which should be considered as input for the fund manager's own fund style classification guided by the descriptive style classification (part B). Part C serves as a check for those using the fund style sheet as guidance that the fund return is a result of the risk factors rather than an input.

The sheet was the basis for a questionnaire to collect data on existing funds from fund managers to support analysis of these risk factors in practice and the development of a styles classification tool.

FIGURE 01: INREV FUND STYLE SHEET			
A: FUND RISK FACTORS			
FUND ACTIVITY			
Income producing %	Non-income producing %	Operating companies %	Financial instruments %
*Of the **% non-income** producing fund activity, breakdown intended strategy by:*			
(Re)letting %	Refurbishment %	(Re)development %	
*Of the **% income** producing fund activity:*			
Target percentage of fund returns derived from income %			
VEHICLE CHARACTERISTICS LEVERAGE			
Target permitted external loan to value ratio as % of Gross Asset Value			
Target expected loan to value ratio as a % of Gross Asset Value			
PORTFOLIO COMPOSITION DIVERSIFICATION			
Total number of assets expected over the life of the fund			
Maximum number of assets in one country	Minimum number of assets in one country		
Number of countries in target allocation			
B: MANAGER'S DECLARED FUND STYLE			
Core	Value added	Opportunity	
C: RESULTANT FUND RETURN CHARACTERISTICS			
Target Internal Rate of Return % PA or Return Relative to Benchmark:			
Benchmark used if relative			

After collecting the data the next step was to analyse the relationships between these risk factors and the style categories. Statistical analysis using a two-step clustering algorithm was used to identify which combinations of quantitative risk factors have been most successful in grouping funds into the 'correct' style classification.

In the first step, identification of groups of funds based on various combinations of risk factors is obtained and in the second step, on the basis of a probability, funds are assigned to a particular risk group.

First the risk factors were identified. Funds were grouped on the basis of statistical measures derived from various combinations of potential risk factors using a two-step cluster algorithm. It was found that three groups of funds could be established based on three risk factors rather than all six as presented in the Fund Style Framework, namely:

- Leverage,
- Development exposure and
- Duration indicator: income distributions.

This methodology analysed the various definitions of risk factors in a very 'clean' way. Without pre-specifying the number of clusters, 3 clusters emerge as the most significant partition. The three groups of funds determined this way were found to correspond to a low risk group, a medium risk group and a high risk group. Furthermore, these groups were found to closely correspond to existing style classifications of core, value added and opportunity, with almost three out of four funds matching their current classification.

In the second stage, the relationship measures the impact of each of the three risk variables arrived at in the first stage of the analysis.

4 INREV STYLE CLASSIFICATION 2011

The aim of the new INREV Style Classification is to have a 'workable, robust and enduring' style classification for the non-listed real estate fund industry. The proposed INREV Style Classification is based on three quantitative variables that are derived from analytical analysis which makes the model rather robust. These three variables are simple and transparent indicators of variation in risk and are easy to provide, and therefore allowing for a classification that is workable. Finally the new classification has clear boundaries that unlike IRR don't shift over time with the state of the market, and so prevent funds from drifting across the defined boundaries.

The new INREV Style Classification is based on three fund risk factors.

1. An **INCOME INDICATOR** measured by the target percentage of investments in non-income producing investments with the aim to generate future income after (re) development, refurbishment or re-letting activities.

   INCOME PRODUCING INVESTMENTS are investment in assets for which construction work has been completed and which are owned for the purpose of letting, producing a rental income that is negotiated at arm's length with third parties.

   NON-INCOME PRODUCING INVESTMENTS are investments in assets (either properties or land) that at the time of investment are not producing any rental income and for which either (re)development, refurbishment or re-letting activities have to be undertaken before rental income is possible.

There is an ADDITIONAL THRESHOLD FOR CORE FUNDS, a percentage of target return delivered by income distributions reflecting the split of income and capital delivered in investor returns during the life of a fund. This additional measure of risk for core funds follows the logic that strategies which depend on capital appreciation are inherently more risky than those which depend on stable income return. Funds with the same total return but with a lower proportion of that return delivered from income are more sensitive to changes in the discount rate.

INCOME DISTRIBUTION Any return derived from rental income that a fund is able to payout on an annual basis.

2. **DEVELOPMENT EXPOSURE** measured by the target annual development expenditure as a percentage of overall fund target Gross Asset Value (GAV) at any point in the life of the vehicle. Development exposure includes any development or redevelopment activities but excludes refurbishment.

   (RE)DEVELOPMENT include all activities to obtain or change building or land use permissions and the financing and construction works for the project(s) with the intention to enhance the value of the property. This also includes improvements to enhance the utility or energy conservation of a property.

   The threshold for the (re)development is that if ≥15% of GAV of an individual asset is spent on (re)development, the whole GAV of that particular asset will be regarded as (re)development. If <15% of GAV of an individual asset is spent on (re)development, the whole GAV of that particular asset will be regarded as refurbishment.

3. **LEVERAGE** is a variable which is already defined and used in the present INREV Style Classification. Evidence shows that leverage at 50% doubles the volatility of the equity risk of the fund. The new INREV Style Classification however uses the maximum permitted loan-to-value variable rather than target loan-to-value, recognising that investors use this figure when analysing the risk factor in their portfolios.

   MAXIMUM LOAN-TO-VALUE:
   Loan to value is the consolidated total external leverage at the fund level as a percentage of the gross asset value of the fund.

   Notes:
   Depending on the accounting standards, a fund manager will mark the debt to market, with any gain or loss being reflected in the fund's profit and loss account.
   Investors' subscriptions, which may compromise a loan (e.g. for tax structuring considerations), should be excluded from the calculation.
   Some fund managers disclose details of non-consolidated debt in the fund as well as the interest rate cover and debt service cover ratios.

4.1 Boundaries for Style Classification

OPERATIONAL VARIABLES

– TARGET PERCENTAGE OF NON-INCOME PRODUCING INVESTMENTS AS A PERCENTAGE OF FUND GROSS ASSET VALUE

≤15 %	Core
15% – ≤40%	Value added
> 40%	Opportunity

– CORE NEEDS TO HAVE ≥ 60% OF TARGET RETURN DERIVED FROM INCOME DISTRIBUTION

– TARGET PERCENTAGE OF (RE) DEVELOPMENT EXPOSURE AS A PERCENTAGE OF FUND GROSS ASSET VALUE

≤5 %	Core
≤25%	Value added
>25%	Opportunity

A fund can be classified as core by virtue of these operational variables. Leverage is used as a further layer of information for core funds, while leverage is another classification variable for value added and opportunity funds.

The parameters on leverage for core are set to be less than or equal to 40% or more than 40%. Therefore a core fund can be defined as:

– Core, leverage equal or less than 40% (≤ 40 %)
– Core, leverage more than 40% (>40%)

LEVERAGE

– MAXIMUM PERMITTED LOAN-TO-VALUE AS A PERCENTAGE OF FUND GROSS ASSET VALUE

≤40%	Core
40% – ≤60%	Value added
>60%	Opportunity

A fund is required to have all the boundaries of a particular style. If one or more of the boundaries is crossed the fund will be classified to the riskier of the styles in which boundaries the fund sits.

A fund style is based on its objectives/targets at launch and will be frozen at that point. It is designed to be applied to funds launched in 2011 and later. Reclassification should be regarded as exceptional events, supported, for example, by the approval of investors.

FIGURE 02 / INREV STYLE CLASSIFICATION

	CORE ≤40%	CORE >40%	VALUE ADDED	OPPORTUNITY
TARGET OF NON-INCOME PRODUCING INVESTMENTS AS A PERCENTAGE OF FUND GAV	≤15%		>15% TO ≤40%	>40%
TARGET OF (RE)DEVELOPMENT EXPOSURE AS A PERCENTAGE OF FUND GAV	≤5%		>5% TO ≤25%	>25%
TARGET RETURN DERIVED FROM INCOME	≥60%		N / A	N / A
MAXIMUM LOAN-TO-VALUE	≤40%	>40%	>40% TO ≤60%	>60%

The analysis behind this new INREV Style Classification showed that there are three key determinants of style. This does not imply that there are no other risks which impact the performance of non-listed real estate funds, due to the heterogeneity of real estate assets and the variety of management strategies which can be applied to them. Country allocation is an example, which seemed less relevant for style classification based on the analysis but can still be seen as a risk variable. However the scale of this risk depends too much on the individual investor. It is therefore preferential to have a country label next to the style classification, for example French Core fund or Iberian Value Added fund.

These three described risk variables and the boundaries provide clear guidance and meet the initial criteria of having a workable style classification. We do, however, realise that the use of fixed numerical bands to classify styles creates boundary challenges for funds on the borderline of the bandings. We therefore introduce the INREV Style Classification Guide tool alongside the new INREV Style Classification. This tool is available on the INREV website at www.inrev.org

5 STYLE CLASSIFICATION GUIDE TOOL

In the second stage of the two stage analysis of the risk variables a tool has been developed that estimates the relationship and measures the impact of each of the three risk variables. This is done by effectively weighting each of the risk factors and then combining the three to derive the probability of a fund belonging to one of the three groups risk groups by looking at a large sample of previously launched funds. In some cases there may be a very high probability that a fund may be a core fund and a small probability of it being a valued added fund. In other situations, the result may not be that clear cut and a fund may be borderline between core and value added, in which case the likelihood of being in one or the other group will be more or less similar.

The thinking behind adopting this approach is that based on different exposures to the risk factors there is likely to be some uncertainty in classifying a fund and allocating it to a specific style. In some situations the uncertainty may be relatively large and in other situations relatively small. This INREV Style Classification Guide tool reflects the underlying uncertainly regarding the assignment of a fund to a style and, on balance, provides the probability of allocation to a particular group.

The INREV Style Classification Guide tool offers the opportunity to get a more refined view on the fund style and can be used as an extra layer of information.

The higher the probability of belonging to a particular risk group, the more confidence there will be in assigning a fund to a group. The tool can be found for members and non-members on the INREV website, www.inrev.org

This is a statistical tool based on **existing funds** that were launched in a different market reflecting past market practice. The analysis behind this Style Classification Guide tool will be reviewed periodically. The accumulation of data on style factors will allow the tool not only to become more robust while at the same time be a mirror of the industry. If something structural changes in the market, the INREV Style Classification and the Style Classification Guide Tool might diverge, indicating that we have to review the boundaries of the INREV Style Classification.

This addition of the INREV Style Classification Guide tool alongside the boundaries of the classification allows the style classification to be enduring, while still having a firm model that leads the market.

6 IMPLEMENTATION OF THE NEW INREV STYLE CLASSIFICATION

The proposed style classification is based on targets set out at the launch of a fund and the fund style will be frozen at that point. The new classification will be applied to newly launched funds from 2011 onward. We recognise that there might be some issues when it is applied to existing funds that were launched in a different market.

The risk factors of a fund change during the life of a fund, which limits the possibility of reclassifying existing funds using their current levels for the different variables. Furthermore, existing funds might not have specific targets for some of the variables at the launch, which could mean that they might be classified wrongly when applying this new INREV Style Classification.

The new variables will be added to the INREV Vehicle Database which fund managers periodically have to update. We will ask fund managers to supplement their information for existing funds in the database, allowing these funds to be reclassified according to the new INREV Style Classification.

The INREV Style Classification sets the INREV Style going forward with the INREV Style Classification Guide tool offering additional information based on past market practice. As more funds adopt the new INREV Style Classification the tool will reflect this given that it is a mirror of the industry.

INREV will continue to monitor the development of the market, using the tool as an indicator of market practice to prolong assessment of the use and practicality of the INREV Style Classification.

The INREV Benchmarking Committee will review how to incorporate the new style classification in the INREV Index.