Supporting document: Additional pricing policy issues

Open End Fund Pricing Consultation Paper - Phase 2

INREV

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The Association of Real Estate Funds

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Analysis of selected matters that impact on the effective operation of pricing methodologies

Phase 1 of the study undertook a quantitative analysis of the effectiveness of the two most common methodologies used for pricing open end institutional real estate funds – classic dual price and Cap & Am – and focused on the principal factors that influence pricing outcomes. However, there are a range of further matters that potentially impact on pricing outcomes, are of relevance to good governance and are better considered on a qualitative basis. These matters are considered in this supporting document.

As the aim of this document is solely to provide additional insight to those involved in the setting and maintaining of pricing policies. These topics are not subject to consultation.

The purpose of subscription and redemption prices

The fair value of the assets of an investment vehicle reflect the price that would be agreed in a transaction between a willing buyer and a willing seller. This typically does not include all the costs of buying and selling assets as there will be costs such as fees and taxes that, although capitalised when incurred, are not generally fully reflected in the subsequent fair value of the asset. These are discussed further below. If these costs are not reflected in the amount that new investors pay to subscribe for new units in the vehicle or the amount paid out to departing investors when they redeem, other investors in the vehicle will be diluted.

Where costs of investing and divesting vary, there will be compromises that need to be considered in terms of reflecting the anticipated costs at any particular time and spreading those costs evenly across all investors.

There are also philosophical differences in the way in which investors regard the additional cost of subscribing for units:

- To ensure that an incoming investor pays all the incidental costs of deploying the capital that they have invested (based on assumptions to determine those incidental costs). This rationale is more closely aligned with a bid offer/spread model; and

- To ensure that an incoming investor compensates existing investors for the incidental costs of deploying the capital that the previous investor invested (based on actual incidental costs). This rationale is more closely aligned with a capitalisation and amortisation model.

Variants of the classic dual price and Cap & Am models continue to evolve, but in considering whether to invest, investors should evaluate the effectiveness of such variants in equitably allocating transaction costs between different subscriber vintages, engaging the manager to explain the impact on investor outcomes of their chosen model where necessary.

Net asset value – the starting point for pricing

The way in which investment property is treated for accounting purposes will depend upon the GAAP followed by the investment vehicle. IFRS allow investment property to be reflected in the accounts at fair value or historic cost. An open end real estate investment vehicle using IFRS will generally use the fair value option. Other GAAPs may have different requirements. For example, German GAAP requires assets to be accounted for under depreciated historical cost whereas UK GAAP (FRS 102) requires investment property to be held at fair value. Each GAAP may also have different rules for specific situations, for example property under construction.

To the extent that assets and liabilities are not being carried at fair value, these will need to be adjusted to fair value, irrespective of the accounting GAAP, to establish a NAV for pricing purposes.

INREV NAV, for example, has become a popular starting basis for use in Cap & Am pricing models and requires an adjustment to fair value IFRS or other local GAAP as a starting point. INREV NAV was conceived in 2007, with the objective of aiding the comparability of vehicle performance but has additionally found common use as the basis for the Cap & Am pricing methodology utilised by many European real estate investment vehicles, particularly among pan-European vehicles. It has proved particularly popular as it more readily recognises the interests of different generations of investors when compared to some other NAVs.

The use of INREV NAV provides a comparatively accurate reflection of the economic value of the investment in a vehicle, based on the fair value of the underlying assets and liabilities. However, INREV NAV was not originally developed as a pricing methodology and additional adjustments may be considered to calibrate it for pricing purposes (see Section 2.3).

Firstly, various alterations are made to local country GAAP or IFRS to develop the INREV NAV. These include, among others, the revaluation to fair value of underlying assets and liabilities and adjusting for the spreading of costs that will benefit different generations of investors through capitalisation and amortisation of setup costs and acquisition expenses. All these are set out on the INREV website.

There are also other alternative NAV bases that are utilised by pricing models and consequently may differ between vehicles. For example, vehicles following AREF methodology use accounting NAV as the starting point for pricing and other reporting.

A further challenge can arise where confidence in the valuation of the underlying assets is low, for example following a market dislocation event, as any subjectivity in asset value feeds through directly to the price at which investors can subscribe and redeem units. At such times, the investment manager may adjust the underlying valuation and hence NAV to ensure that investors entering or exiting the investment vehicle do so at a price that does not transfer value between different vintages of investors.

Acquisition costs and how they are treated

As indicated above, in a classic dual priced investment vehicle, units are issued to investors at a pre-determined premium to NAV to reflect the cost of acquiring assets. In a Cap & Am model, the same costs of acquiring assets are incorporated into the NAV.

The largest component of the additional cost of acquiring assets is tax on real estate transactions. It is for this reason that use of a pre-determined premium to NAV may be problematic in a vehicle investing in multiple countries with different rates of transfer taxes.

For example, under the classic dual price model where a pre-determined premium to NAV is the most common approach, this may not reflect the actual cost of deploying capital as real estate transactions rarely follow a simple or standardised model. This is illustrated in Table 1 below, where a 5% transaction tax has been used that only applies to the land and building components of a commercial building.

Table 1: Example of acquisition cost rate

	Amount	Transaction tax	Other	Total	Acquisition Cost
Acquisition of building	50,000	5%	1%	6%	3,000
Acquisition of land	10,000	5%	1%	6%	600
Development	70,000	0%	2%	2%	1,400
Refurbishment of existing building	10,000	0%	0%	0%	0
Total	**140,000**				**5,000**
Effective acquisition cost rate					**3.57%**

In this example the actual leakage from acquisition costs is materially below the transaction tax rate. The situation would be further complicated where the investment vehicle's investable universe includes countries with disparate transaction costs, notably transaction taxes.

Translating costs into pricing

Subscription and redemption prices
A number of decisions have to be made by an investment manager in operating any pricing methodology. The manager and independent representatives will need to consider whether to amend the vehicles pricing policy and/or its operations in respect of such decisions. Examples of where this may be appropriate are shown below.

Table 2: Summary of subscription price costs in different pricing mechanisms

	Classic Dual Pricing	Variations of Classic Dual Pricing	Cap & Am
Pricing Mechanism Rationale	Charge on new investors to reflect the cost of deploying their capital	Charge on new investors to reflect the cost of deploying their capital	Reimbursement of existing investors of their cost of investing
Should costs be historic, current or future?	Current or future	Historic, current or future	Historic
Should costs be amortised?	No	No	Yes, over pre-determined period
Should costs be included in NAV?	No	No	Yes

Historic, current or future cost bases
As indicated above, in a classic dual priced vehicle, units are issued to investors at pre-determined premium to NAV to reflect the cost of acquiring assets using that capital. This pre-determined premium is usually a current estimate of the future costs of deploying capital. In a Cap & Am model, it is the same functional costs that are reflected, although it is the actual historic cost of investing that is used. Cap & Am and classic dual price will typically differ because:

- The actual cost of deploying capital may not be the same as the future cost of deploying capital;
- The asset created through the capitalisation of costs is shared between existing and new investors; and
- The costs are amortised. The modelling in the previous phase of work demonstrated that extending the amortisation period beyond five years improves the effectiveness of Cap & Am.

Traditionally in classic dual pricing models, a fixed subscription price has been calculated by making the assumption that the whole portfolio is sold and reacquired on the day of subscription. There is a recognition among some investors that this may not reflect the cost of deploying capital.

The approach used by Cap & Am is to look at the actual historical cost of investing. Using the example in Table 1, if the historical cost of investing was 3.57% rather than the 6% that would apply if the portfolio was assumed to be sold and reacquired, is a subscription price of Nav +3.57% more appropriate? There are several practical considerations that should be addressed when responding to this question and developing the pricing policy:

- The period of time over which the relevant transaction costs should be averaged. The longer the period, the more data will be included and therefore the less likely that it will be impacted by outliers. Conversely, the longer the period, the more out of date the earlier data and the greater the risk that it will be out of date.
- Data may be undermined by a lack of transaction activity in the previous years. In a Cap & Am model, this would feed through to a lower subscription cost.
- A known or upcoming change to the cost of deploying capital (typically tax rates) which will create a gap between the actual cost and pre-determined premium in a classic dual price model.

For these reasons, it is vital that investment managers are transparent with investors on the detailed design of pricing models, any amendments made to them, and their accuracy in use.

Maintaining pricing inside or outside of NAV

If the same assumptions are made regarding the costs to be used in pricing and the calculation of prices, then it makes no difference for subscription and redemption pricing if those pricing adjustments are maintained inside or outside of the NAV, although it should be noted that the NAV, and the price at which units can be transacted, have distinctly different purposes.

By way of example, if the transaction cost of acquisitions is 6% and the transaction cost of disposals is 2% then:

- Under classic dual pricing, NAV will be 100, the subscription price will be 106 (NAV plus 6) and the redemption price will be 98 (NAV minus 2).
- Under Cap & Am, the Day One NAV will be 106, the subscription price will be 106 (NAV) and the redemption price will be 98 (NAV minus 8).

In this case, the discount for redeeming should equal the unamortised acquisition costs included in the NAV, plus the estimated cost of disposing of assets.

As covered in the INREV/AREF report entitled 'Cost Transparency in European Listed and Non-Listed Real Estate', from February 2017 unamortised costs should be separately disclosed.

The impact of gearing

If a vehicle borrows to acquire assets, then the costs reflected in subscription and redemption pricing should be higher if dilution is to be avoided. If a vehicle borrows at 50% loan to value (LTV), the amount of assets acquired (and related transaction costs) will be twice the amount of the new capital invested. Using the previous example:

Table 3: Summary of impact of gearing

Capital invested	70,000
Debt	70,000
Total assets acquired	140,000
Acquisition cost percentage of GAV	3.57%
Acquisition cost percentage of NAV	7.14%

Equally, when assets are sold to meet redemptions, in the above example, the gross value of assets to be sold to meet a redemption of 70,000 will be 140,000. The disposal costs will therefore be proportionately higher. This impact will vary over time as the level of gearing in an investment vehicle is rarely constant over time.

In a Cap & Am model, this will feed through to vehicle pricing over time. In other pricing models, this will need to be reflected directly by adjusting pricing assumptions.

The comments above are relevant for long-term borrowing rather than short-term bridging finance that is replaced by equity.

Separate issues arise if short-term debt is used in a rapidly changing market. If debt is used to fund vehicle redemptions in a falling market, then by the time the assets are sold to repay the debt, they will have fallen in value. If no adjustment is made to the price at which investors are redeemed to reflect a fair estimate of the value at which the assets could be sold, this would result in a transfer of value between investors.

The impact of reinvestment

During the life of a vehicle, assets may be sold and the proceeds reinvested. Costs will be incurred in both the disposal and the reinvestment. In a Cap & Am model, those costs of investing will become part of the additional capitalised asset. In a classic dual pricing model, those costs will not affect the pricing. Similarly, in a pricing model that uses the average historical cost of investments to calculate the subscription price, the cost of reinvestment will be reflected in the average.

Variations to Classic Dual and Cap & Am pricing models

Phase I concluded that combining some of the qualities of both the classic dual and Cap & Am pricing models has the potential to provide improved results for investors. It also established that, alternatively, there are steps that can be taken to improve each of the models individually to the point where the comparative differences between them are negligible.

Currently, the use of alternative pricing appears to largely be used to enable capital raising and it is usually the offer limb of the pricing mechanism that is adjusted to a level that is acceptable to both incoming and existing investors. There are several variants of this approach.

In several instances, historical acquisition costs have been disregarded and offer price adjustments have been made on a forward basis when raising new equity for capital expenditure and to pay down debt, based on the reasonable argument that neither incur the same costs as deploying capital into investment acquisitions. Investors have been broadly supportive of these price adjustments as they produce an equitable outcome for existing and new investors.

In another instance, an existing open end vehicle is dual priced but new investors entering the vehicle have the option to either pay NAV, plus the documented entry premium, or, so as not to be faced with a

day one write-down, take a reduction in distributions commensurate with the entry premium over an assumed five-year hold period. They have effectively been provided with a 'loan' to fund acquisition costs, by existing investors, which is repaid through a reduction in distributions until such acquisition costs are fully paid. Any such investor exiting before the end of five years will have any unpaid entry premium added to the exit cost. Such a model risks transferring value between different vintages if the 'loan' is not fully compensated for the time value of money by incoming investors. It also mixes income and capital. This model also introduces a significant additional level of complexity and operational risk, particularly for larger vehicles with many investors, as detailed records are required to be maintained for each vintage of investor. Given the complexity of operating such models and the risk of dilution, investors are recommended to proceed with caution.

All variants of pricing models should comply with the guiding principles herein by equitably and transparently attributing transaction costs between investors.

A hybrid pricing model

Attracting funds from a wider pool of capital by offering different pricing methodologies within the same investment vehicle (or via a feeder vehicle) holds out the potential of enabling investors to participate in a common investment vehicle irrespective of their pricing preference, achieving scale that would bring cost and efficiency benefits that can be passed on to investors through reduced fees and through more diverse and dynamic portfolios. However, it should be noted that such models are relatively untried, complex to operate and lack safe harbours in the event of operational difficulties or errors occurring. Managers choosing to follow this route should take a precautionary approach and adopt the governance principles set out herein, of providing transparency and fair outcomes for investors.

Although such models can be designed, examples of both classic dual and Cap & Am pricing models being successfully incorporated within the same investment vehicle are rare, notwithstanding they provide investors with increased choice and the ability to invest alongside investors with likeminded objectives but with a preference for a different pricing model. While not advocating for or against such models, more widespread adoption would provide the opportunity to reduce market fragmentation, increase vehicle size and accelerate the emergence of an ODCE-style market in Europe.

Characteristics of a Hybrid Investment Vehicle

Different share classes are already widely used across the investment management industry to facilitate distribution by tailoring the investment product to meet the requirements of institutional investors with different tax profiles, income requirements and fee structure preferences.

A hybrid investment vehicle might offer different share classes for units providing classic dual or Cap & Am pricing models, and such share classes may be further divided to provide accumulation, income or different fee characteristics.

Each share class invests in the same portfolio of real estate assets that are managed under a common strategy with the same investment objectives and policies. But each share class has distinct pricing policies, distribution arrangements and investor level performance characteristics, the latter reflecting the varying NAVs arising from using different pricing models.

Under this model, investors bear transaction costs at the same rate regardless of share class, as all share classes pay the same transaction cost premium. This premium is written off against NAV in the case of a classic dual price share class and capitalised in a share class applying a variant of the Cap & Am model, being amortised over a fixed period. Once capitalised transaction costs have been fully amortised, Cap & Am

investors can be transferred to an equivalent classic dual price share class as investors under both models will have fully borne their share of transaction costs and their economic interest in units of the vehicle are identical. An investor in the Cap & Am share class choosing to exit early will be required to pay any unamortised costs in addition to exit costs. Shares issued to Cap & Am investors, in such a hybrid vehicle, effectively shadow their classic dual priced equivalent so that there is transparency on the exit price that will apply on an early exit. This is illustrated in the worked example later in the document.

Operating such an investment vehicle in practice requires an individual account to be set up for each investor so that transaction costs, capital and income can be evenly allocated across share classes. Fees are allocated to each share class with unamortised transaction costs ignored for this basis. The same approach is also adopted for allocating capital returns, income returns, in computing any distributions and, for investors in accumulation share classes, for determining new units to be issued. The computation of performance will use the NAV applicable to each share class and so the denominator for this computation will differ between share classes using the classic dual and Cap & Am pricing models.

Irrespective of pricing preference, the records for all investors are initially prepared in accordance with the GAAP of the vehicle and applying the classic dual price methodology for determining fees, returns and distributions. This approach avoids the need to equalise returns between share classes. For those investors choosing Cap & Am share classes, an additional 'shadow' record is maintained recording the adjustments made to the classic dual price record to capitalise and amortise transaction costs and determine the published NAV for these share classes. This can be thought of as a layered approach that ensures transparency and avoids value being transferred between investors following different pricing methodologies.

Such a hybrid pricing model does present operational challenges that must be overcome. The need to operate individual accounts for each investor means complexity is significantly increased compared to a vehicle operating under a single pricing model, particularly for vehicles with large numbers of investors. The maintenance of such detailed records is frequently not supported by existing accounting platforms, necessitating bespoke systems to be developed or recourse to spreadsheets.

Further, costs and charges disclosures under Mifid II will vary depending on the choice of pricing model and judgement will need to be exercised by the manager in how it communicates such disclosures, so they are transparent and not misleading. Given NAV varies depending on the choice of pricing model, reported performance will vary depending on the share class chosen and there will no longer be a single measure of performance for the investment vehicle which may be problematic where the investment vehicle operates within a benchmark. Again, transparent communication and disclosure will be key to avoid any investor being misled.

For any manager choosing to follow a hybrid approach, it is therefore vital to provide full disclosure on how the model works in the prospectus and other vehicle documentation, to provide clarity for investors on the mechanics and risks of the model. Independent representatives also have an important role to play in ensuring that the pricing model is operated effectively and transparently due to its additional complexity.

Illustration of a hybrid model

In this illustration we assume the following:

- Two investors each investing an equal amount of capital but choosing different pricing models for their investment;
- Each investor contributes an amount of 100 to enable the investment vehicle to purchase assets;
- Transaction costs for both investors are 4%, being a notional acquisition cost based on the whole portfolio at the point capital is drawn;
- The value of the underlying real estate increases by 1 each year over the life of the investment;
- Both investors pay annual fees of 100bps payable on closing NAV of the classic dual price NAV; and
- Total return is 5% in each year.

Table 3: Illustration of the pricing of a hybrid

	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
Classic dual price share class						
Subscription price	104					
Real estate value and investor NAV	100	101	102	103	104	105
Fees		4.04	4.08	4.12	4.16	4.20
Total return		4.95%	4.90%	4.85%	4.81%	4.76%
Cap & Am share class						
Subscription price	104					
Real estate value	100	101	102	103	104	105
Acquisition cost asset	4	3.2	2.4	1.6	0.8	0
Investor NAV	104	104.2	104.4	104.6	104.8	105
Fees		4.04	4.08	4.12	4.16	4.20
Total return		4.80%	4.79%	4.78%	4.77%	4.76%