

UNIT PRICING PRACTICES

BY

**THE UNIT PRICING WORKING PARTY OF THE
SOCIETY OF ACTUARIES IN IRELAND**

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Introduction

1.1. Introduction

The Life Committee of the Society of Actuaries in Ireland decided to set up a working party on unit pricing because it seemed opportune to review unit pricing practices.

The last major Irish paper on Unit Pricing ("Unit Pricing and Equity in the Management of Life Assurance Unit Funds" by a unit pricing working party) was in 1993. There was a further related paper in 1997 ("Taxation and Disclosure Issues in Unit Linked Life Assurance" by John Caslin and George McCutcheon).

1.2. Terms of Reference

There were no formal terms of reference.

The working party decided to undertake a survey of current unit pricing practices to be sent to all Appointed Actuaries of both Irish domestic life companies and IFSC companies and also to look at best practice in other jurisdictions like the UK, Canada and Australia.

1.3. Working Party Members

The members of the working party were Anthony Brennan, Sean Casey, Adrian Cooper, Fiona Denvir, Tony Jeffery, Kevin Manning, George McCutcheon (Chairman) and Brian Morrissey (all members of the Society of Actuaries in Ireland).

1.4. Recommendations

The Working Party concluded that its terms of reference did not include making recommendations on unit pricing practices. Consequently, there are no recommendations on best practice in the report.

1.5. Summary

The main part of the report consists of the results of a unit pricing survey for Irish life companies with the results separately analysed for Irish domestic life companies and IFSC life companies.

The report also summarises practices in other jurisdictions like the UK, Canada and Australia. It would not be possible to include all reference material relevant to those markets but sufficient

material is included to give the reader an overview of the relevant formal guidance material in those territories.

1.6. Disclaimer

Any opinions expressed in this paper are those of the members of the working party and not of their respective employers nor of the Society of Actuaries in Ireland.

1.7. Acknowledgements

We wish to thank the companies that participated in the unit pricing survey. It was apparent from the replies and in particular from the comments therein that considerable thought and effort went into the survey replies. This greatly assisted the working party in its work and so many thanks to the individuals within the participating companies who completed the survey. We also wish to thank Ms. Yvonne Lynch, the Society's Director of Professional Affairs for her assistance in distributing the survey to Appointed Actuaries and in receiving the confidential replies.

Survey Issues

2.1. Background

The Working Party identified a number of practical issues which were of interest to market participants and designed a survey of current practice. The Society of Actuaries in Ireland invited and encouraged all Appointed Actuaries of both domestic Irish and IFSC life companies to participate in the survey.

The purpose of the survey was to determine the general industry approach to important practical issues in unit pricing. The Working Party was considering the practical issues of unit pricing rather than the theory and the survey reflected this.

The basis of the survey was that:

- The replies to the survey would be collated and the results would be presented in a paper to the Society.
- A copy of the paper would be available to all participant companies, and the results would not otherwise be circulated to participants.
- The results would be presented in the paper only in aggregate form (analysed separately across domestic and IFSC companies). Thus no commercially sensitive information would be made available to competitors.

The survey was sent to the Appointed Actuary as an appropriate initial point of company contact – the individual companies decided how best to complete the survey.

The replies of all individual participant companies were kept confidential and were emailed directly to the Society's Director of Professional Affairs. The survey replies were forwarded to the Chairman of the Working Party specifying only that the company was either domestic or IFSC and labelling the company as A,B, C, D, etc for confidentiality purposes. Thus the Working Party did not know which replies corresponded to which companies. Only the consultant members of the Working Party were involved in collating the labelled replies. The Working Party members employed by life companies did not have access to the individual replies.

Six domestic and eleven IFSC life companies replied to the survey.

2.2. Unit Pricing Survey

There were seven sections to the unit pricing survey:

1. Valuation Methodology
2. Pricing Basis
3. Unit Pricing Controls
4. Unit Pricing Errors
5. Asset Transactions/Transactions between Unit Funds
6. Fund Operation
7. Tax Issues and Tax Losses

The results were compiled separately for domestic and IFSC life companies.

2.3. Scope for Discretion

The survey specifically addressed issues where there was scope for discretion. It is perhaps helpful to explain the context in which the survey was prepared. The Working Party noted that Section 3 of the Association of British Insurers paper "A Guide of Good Practice for Unit Linked Funds -June 2006" addresses the use of discretion in managing a fund. The guide recommends that "funds should be operated according to published criteria and standards. Specifically, the scope of the firm's discretion in managing the fund and the limits to that discretion should be documented and disclosed to policyholders and other relevant parties. This codification provides a clear point of reference against which to review any decisions taken, helping to provide clarity and certainty for all parties".

The requirements for those standards of documentation and disclosure do not apply in Ireland. Consequently, the Working Party believed that a survey which focused on areas where discretion and judgment were required would be useful for market participants in either developing a consensus approach to particular issues or where such consensus could not be reached in identifying issues where more disclosure was warranted.

Survey Results - Domestic

3.1. Section 1 – Valuation Methodology

The majority of companies carry out the unit pricing function in-house.

	N/A	Internal	Outsourced
Is the unit pricing function internal or outsourced (I/O)?	0	5	1

In general companies have a comprehensive documented unit pricing methodology but there are differences in the approval process. The "Other" below is generally the Appointed Actuary.

	N/A	Board	Parent Company	Other
By whom has it been approved (e.g. Board, Parent Co., Other, etc)?	1	2	0	3

In the majority of cases, it is the Appointed Actuary that has the delegated responsibility to oversee the funds' pricing arrangements.

	N/A	Committee	Appointed Actuary	Other
Who has delegated responsibility to oversee the funds' pricing arrangements (e.g. Committee, Appointed Actuary, Other, etc)?	0	1	4	1

The same position pertains for the delegated responsibility to ensure fairness to customers.

	N/A	Committee	Appointed Actuary	Other
Who has delegated responsibility to ensure fairness to customers in the application of unit pricing policies (e.g. Committee, Appointed Actuary, Other, etc)?	0	1	4	1

In general, the company always deals with the unit fund on a forward pricing basis for both single premium business and regular premium business.

Stock valuation points are routinely based on a previous close of business valuation point.

		N/A	A	B
(i)	Are stock valuation points based on (A/B)?	0	1	5
(A)	A fixed point in time			
(B)	Previous close of business prior to fixed point			

The practice is not to disclose the stock valuation points externally. This was somewhat surprising – the reasons for this are unclear.

- Perhaps it is felt that it is unnecessary to do so as that would be providing information at an overly detailed level for most policyholders
- Perhaps the viewpoint of the life companies is that uncertainty about stock valuation points might serve to minimise short-term trading by policyholders.
- Perhaps it is indicative of some concern that external parties might otherwise seek to exploit arbitrage opportunities. If the valuation methodology is sufficiently robust, there ought to be no arbitrage opportunities and disclosure of stock valuation points ought not to be problematic. In practice, if an external party wished to exploit arbitrage opportunities, one would anticipate that they would discover the stock valuation points and the supposed uncertainty about stock valuation points would be providing false comfort to the life assurance company.

The non-disclosure of revaluation dates for Property was expected reflecting the more infrequent revaluation of property and the greater scope for policyholders to exploit this for short-term gain.

	N/A	Yes	No
Are the stock valuation points disclosed externally (Y/N)?	0	1	5
Are the revaluation dates for Property funds disclosed externally (Y/N)?	2	0	4

The general approach to deriving stock prices for a particular stock market if it were closed on a particular date varied:

- 4 replied "Use value at close of business on most recent trading date"
- 1 replied "Previous day's price unless special circumstances exist (e.g. market suspension) "
- 1 replied "The market's previous closing price indexed forward if there has been a significant move in world markets is used".

It appears that in some instances the use of the previous set of prices is unconditional. This is perhaps an area that requires some review as certainly the approach of using indexed (in some appropriate way) security prices appears more robust.

The answers to the next question were somewhat surprising. In hindsight, this might be because the question was somewhat ambiguous. The question intended to ask about the set of prices that would routinely be based on prices close of business Monday. The valuation point is a fund level parameter rather than a security level parameter. The expected answer was Monday on the basis that markets in other countries would have prices for close of business Monday (and thus the prices taken for ROI would be either unadjusted Friday or else Friday adjusted where necessary for global market movements on Monday).

	N/A	Friday	Monday

(ii)	If valuation point is close of business and Monday is a bank holiday in ROI but not in other countries, is the next set of unit prices based on valuation point close of business Friday or Monday?	0	3	3
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There was a variety of bases used for market prices. This might reflect differing system capabilities.

Some use mid prices. Some would appear to use offer prices for securities for funds on an offer pricing basis and bid prices of securities for funds on a bid pricing basis. Others seem to have the capability to use both bid and offer prices of securities, calculate both bid (cancellation) and offer (creation) prices for the fund and then to select the appropriate unit pricing basis for the particular fund. The latter option appears to offer the most flexibility.

	N/A	Bid	Mid	Offer	Last Traded	Other
What market price is used for valuing, bid, mid, offer, last traded, other?	1	0	3	0	1	1

Costs of acquisition/disposal are routinely allowed for at security level or at asset category/class level.

	N/A	Fund	Security
Are costs of acquisitions/costs of disposals (buying/selling costs) specified at fund or security level (F/S)?	0	0	6

In general, there is authority to suspend pricing in extraordinary circumstances.

	N/A	Yes	No
Is there authority to suspend pricing in extraordinary circumstances e.g. 11 Sep 2001 (Y/N)?	0	6	0

There was a difference between companies as regards whether or not rounding is undertaken on a neutral basis.

	N/A	Yes	No
Is rounding undertaken on a neutral basis (i.e. mathematical rounding to the nearest unit of price rather than systematic rounding up or down) i.e. rounding is not used as a method of applying a charge on the unit funds (Y/N)?	0	4	2

3.2. Section 2 – Pricing Basis

A particular area requiring discretion is the determination whether the pricing basis should be creation, cancellation or some intermediate basis. The ABI guide recommends that “funds should be operated according to published criteria and standards. Specifically, the scope of the firm’s discretion in managing the fund and the limits to that discretion should be documented and disclosed to policyholders and other relevant parties. This codification provides a clear point of reference against which to review any decisions taken, helping to provide clarity and certainty for all parties”.

It would be generally be accepted that it would not be practical to publish formal pre-set guidelines (or principles) for determining whether the unit pricing basis for a fund should be cancellation, creation or some intermediate basis. However, such formal pre-set guidelines (or principles) could be documented internally and that could provide a clear point of reference against which to review any decisions taken, helping to provide clarity and certainty for all relevant parties. The perceived advantage of the formal pre-set guidelines is that it might enable soundly based decisions to be taken at pressurised times and that it might provide a better framework for the review of unit pricing basis decisions (for the Board and the Regulator where appropriate).

It was a bit surprising that it wasn’t the norm for there to be formal pre-set guidelines (or principles) for determining whether the unit pricing basis for a fund should be cancellation, creation or some intermediate basis. Three companies had some formal pre-set guidelines. Of the other three, one preferred the approach of utilizing the discretion of the Appointed Actuary taking into account such factors as the level of liquidity, fund flows etc and the other two didn’t provide any further comment.

Where there are formal pre-set guidelines, these are generally based on the % change in the number of units in issue exceeding specified thresholds over a specified period of time. However, this might also take into account likely future flows, future investment income (net of investment expenses and fund charges), capacity for other funds within the company to buy the assets, etc. One company stated “Based on cash amount thresholds”.

		N/ A	Yes	No
(i)	Are there formal pre-set guidelines (or principles) for determining whether the unit pricing basis for a fund should be cancellation, creation or some intermediate basis (Y/N)?	0	3	3
(ii)	Is this based on the % change in the number of units in issue exceeding specified thresholds over a specified period of time (Y/N)?	2	2	2
(iii))	Would particular circumstances such as SSIA maturities cause different guidelines to be applied Y/N)?	3	2	1

A company's Board has the responsibility for PRE. However, it appears that the Appointed Actuary, acting under delegated authority, has a central role in the determination of the appropriate unit pricing basis.

	N/A	Committee	Appointed Actuary
At what level in the organisation is the decision on the appropriate unit pricing basis taken?	0	1	5

In practice, companies tend to apply changes in unit pricing basis on an immediate basis.

	N/A	Phased	Immediate
In practice, is a move between cancellation and creation unit prices applied on a phased or immediate basis (P/I)?	1	2	3

Some companies operate tiered fund structures.

Note 1: With Tiered Funds, the actual assets are held in held in level 1 (investing funds) with the marketing funds being level 2 and holding only unit-holdings in the level 1 investing funds. There might be only one level 1 fund holding Irish equities with multiple level 2 funds having unit-holdings in the level 1 Irish Equity fund.

The unit pricing basis is typically set at the investing fund level.

	N/A	Marketing	Investing
If a tiered (or layered) fund structure applies, is the unit pricing basis decided upon at client (marketing) level or investing level (M/I)? - See Note 1	1	0	5

With a tiered fund structure, tactical asset allocation changes for the marketing funds (e.g. managed funds in particular) could result in cash-flows which might necessitate a change in the unit pricing basis. This might be applied on basis A, B or other.

- Basis A: By changing the unit pricing basis price of the investing funds and letting the prices of the client funds follow accordingly and processing unit appropriations at those prices.
- Basis B: By processing unit appropriations for policyholder transactions at the normal pricing basis but processing the unit acquisitions for tactical asset allocation changes at different investing fund prices (based on a revised unit pricing basis as appropriate)

The typical approach is Basis B i.e. to process the unit-holding transactions for tactical asset allocation changes at a different set of unit prices (for the investing funds) than the standard set used for policyholder transactions. This means that the unit prices applicable to policyholder transactions are not subject to a unit pricing basis change necessitated by tactical asset allocation changes for the managed funds.

The "Other" below was the use of basis B if the impact on the unit price of the asset allocation was above a thresh-hold and this impacted client funds other than the managed funds and otherwise basis A.

	N/A	A	B	Other
If a tiered (or layered) fund structure applies, and acquisition/disposals of units in the investing fund level by client funds (e.g. managed funds) arising from tactical asset allocation changes for the managed funds would result in a change in pricing basis according to the formal rules, how is this applied (A/B/Other)?	1	1	3	1

Some companies choose to amortise buying costs in some circumstances –in practice, this is probably only for funds where no policyholder movements are allowed before the maturity date.

	N/A	Yes	No
Are buying costs/ selling costs amortised (i.e. written down over a specified period) for any funds (e.g. the practice for some UCITS is to spread costs over a period for closed-end property funds) (Y/N)?	0	2	4

3.3. Section 3 – Unit Pricing Controls

In general, there is a formal sign-off process for unit pricing. Sign-off of unit pricing is generally at managerial level.

	N/A	Yes	No
Is there a formal daily sign-off process of unit prices (Y/N)?	0	6	0

A number of key controls are applied by all companies.

	Which of the following controls are applied?	N/A	Yes	No
(i)	Reasonableness of % Change In Price (Y/N)	0	6	0
(ii)	Comparison of % change in unit price to % change in fund benchmark (Y/N)	0	6	0
(iii)	Reconciliation of unit price to previous unit price (Y/N)	0	6	0
(iv)	Check that new unit creations since previous pricing date have not impacted on current unit price (Y/N)	0	5	1

There were some differences in other controls applied. In particular, some companies were not applying a specific check on the changes in currency rates.

	Is there percentage or absolute limits set for key elements of the valuation?	N/A	Yes	No
(i)	Movement of the prices of individual stocks (Y/N)?	0	5	1
(ii)	Change in currency rates (Y/N)?	1	3	2
(iii)	Accrual figures for income, expenses and tax (Y/N)?	0	5	1

The frequency at which unit checks were applied varied.

- All 6 companies operated a daily check on the reconciliation of cash balances to the bank account.
- The asset register was generally reconciled to the custodian records monthly although two companies reported that this was done daily.
- The validity of the pricing assumptions for the tax position of the funds was reviewed monthly or less frequently.
- Procedures and controls are generally reviewed yearly

		N/A	Daily	Weekly	Monthly	Quarterly	Half-Yearly	Yearly	Other
(i)	At what frequency is cash reconciled to the bank account?	0	6	0	0	0	0	0	0
(ii)	At what frequency is the asset register reconciled to custodian records	0	2	1	2	0	0	1	0
(iii)	At what frequency is the validity of the pricing assumptions for the tax position of the funds reviewed?	0	0	0	1	2	0	1	2
(iv)	At what frequency are the procedures and controls externally reviewed?	0	0	0	0	0	0	4	2

There are varying controls/procedures are in place to ensure that investment transactions are updated promptly.

- For some companies, the primary control is through daily bank reconciliations which serve to highlight any incorrect or missing transactions. One also commented "It is also anticipated that the checks of price movements when NAVs have been run will also highlight if there are any rogue transactions affecting fund prices".
- For other companies, the primary control is through a reconciliation to the custodian records on a daily basis or through daily reconciliations to the fund managers' records
- For others, the primary control is through the robustness of the straight-through processing of trades from the front office system

Unit prices and company financial statements are typically generated from the same asset register database. However, the replies did seem a little inconsistent as typically there is no general ledger within the unit pricing software which suggests that the financial statements are generated from a database without a general ledger. Presumably that means that the financial statements are generated directly from the primary records of buys and sells. In some cases, the explanation for the apparent inconsistency is that the fund admin system creates accounting entries which are then exported to an external general ledger.

		N/A	Yes	No
	Are unit prices and company financial statements generated from the same asset register database (Y/N)?	0	5	1
(i)	Does the unit pricing software contain a general ledger (Y/N)?	1	2	3
(ii)	If so, are the daily fund valuations used in deriving the unit prices reconciled to the general ledger fund balances (Y/N)?	4	1	1

There was a mixture of external systems and in-house applications for the unit pricing software.

	N/A	Package	In-House
Is the unit pricing software a package or an in-house application (P/I)?	0	4	2

Unit pricing is subject to internal audit/external review.

	N/A	Yes	No
Has unit pricing subject to internal audit/external review in the last three years(Y/N)?	0	6	0

3.4. Section 4 – Unit Pricing Errors

Surprisingly there was a lack of consensus with the Dublin Funds Industry Association Guidance Paper 6 definition "A pricing error is defined as one or more errors in the computation of the net asset value which, when considered cumulatively, result in a difference between the original computed net asset value ("NAV") and the corrected NAV of at least 0.01% per share".

The question was framed in the context of what is an error and not what is a compensatable error.

Of the three that disagreed,

- One suggested an alternative definition of an error of 0.1%.
- Another suggested an alternative definition of a pricing error being a published unit price that is not consistent with the company's procedures and unit pricing philosophy. Whilst that definition appears reasonable in itself, it is not the basis for an industry wide definition because with such a definition the same issue could be classified as a pricing error by one

company and not by another purely because there were differences between the companies as regards their procedures and unit pricing philosophy.

- The other one didn't indicate why it disagreed.

	N/A	Yes	No
Would you agree with the Dublin Funds Industry Association Guidance Paper 6 definition "A pricing error is defined as one or more errors in the computation of the net asset value which, when considered cumulatively, result in a difference between the original computed net asset value ("NAV") and the corrected NAV of at least 0.01% per share" (Y/N)?"	0	3	3

As regards the definition of a compensatable error, interestingly of the three that disagreed with the previous question, all agreed with the definition.

The N/A reply was a qualified yes being "Yes, but the definition needs to include a tolerance level for which no compensation needs to be paid, where the fund is compensated but not individual policyholders, and where policyholders would be individually compensated" – in effect agreeing with the definition but then referring to compensation thresholds.

The one that disagreed suggested that "Compensation is determined by materiality rather than cause" which is based on the ABI guidelines.

The issue here is that the DFIA definition absolves the life company of responsibility for compensation if the error was not its fault or that of one of its agents. An example might be where an incorrect asset price was received and reasonableness tests could not have been expected to detect the error.

	N/A	Yes	No
Would you agree with the Dublin Funds Industry Association Guidance Paper 6 definition "A compensatable error is defined as one resulting from a mistake or negligence on behalf of the Manager, Directors, the Registrar, the Administrator or their respective delegates involved in the NAV calculation. Examples of mistakes would include incorrect input of data, improper checking, incorrect interpretation of data and the adoption of an interpretation that would not be considered reasonable by another professional. Negligence would include an inadequate control environment or incompetent staff." (Y/N)?"	1	4	1

There was a clear majority that subjective elements of the pricing basis don't override the requirement for an error of fact or invalid assumption to be classified as a unit pricing error.

	N/A	Yes	No

Would you agree that the scope for applying discretion for other subjective elements of the pricing basis doesn't override the requirement for an error of fact or invalid assumption to be classified as a unit pricing error (Y/N)?	0	5	1
Would you agree that, if the compensatable error threshold is 0.5% and a error of 0.6% arose, that discretionary elements of the pricing basis which might change the unit price by say 0.2% shouldn't allow the error to be classified as non-compensatory (Y/N)?.	0	5	1

Unfortunately, the next set of survey questions was ambiguous.

The intention was that the questions were meant to be interpreted as

(i) If incorrect data is received from a third party, does that constitute a unit pricing error?

(ii) If incorrect data is received from a third party and the data error could not have been reasonably detected, does that constitute a unit pricing error?

(ii) If incorrect data is received from a third party and the data error could not have been reasonably detected but the third party was part of the same group, does that constitute a unit pricing error?

(ii) If incorrect data is received from a third party and the third party has a contractual relationship including provision for compensation for errors, does that constitute a unit pricing error?

Thus, if a company believed that incorrect data received from a third party was always an error, it would answer yes to (i) and "N/A" to (ii), (iii) and (iv).

The expectation was that the answers to (i) would be "Yes" and that there would be some "No" answers to (ii) and that there would be a lower number (or none) "No" answers to (iii) and (iv) than for (ii).

Interestingly three companies believed, where incorrect data was received from a third party (e.g. provider of market price data) on which the company relies, that constituted a unit pricing error without qualification.

Of the other three companies, none accepted the qualification that it was a unit pricing error only if the error ought to have been reasonably detected. Because of the ambiguous nature of (ii), these answers are subject to interpretation. Of those, two accepted that it was a unit pricing error if the third party was part of the same group or if the third party has a contractual relationship including provision for compensation for errors. The third reply was silent on those two latter points.

The position can be compared to the ABI Guide (which doesn't define a unit pricing error). It includes "However, firms will need to consider carefully how they respond to *incorrect* price or valuation information provided by third parties. In particular, where investors have lost out it may be appropriate to provide compensation (regardless of whether the firm intends to take action against the third party)".

		N/A	Yes	No
(i)	If incorrect data is received from a third party (e.g. provider of market price data) on which the company relies, does that constitute a unit pricing error?	0	5	1
(ii)	Yes but only if error ought to have reasonably detected (Y/N)?	3	3	0
(iii)	If the third party is part of the same group (Y/N)?	4	2	0
(iv)	If the third party has a contractual relationship including provision for compensation for errors (Y/N)?	4	2	0

Surprisingly, two companies believed that it wasn't a unit pricing error if a fund is priced on a pricing basis (e.g. cancellation or creation or other) for a period of time which is subsequently found to be inappropriate based on known on-going fund cash-flows at the time.

	N/A	Yes	No
If a fund is priced on a pricing basis (e.g. cancellation or creation or other) for a period of time which is subsequently found to be inappropriate based on known on-going fund cash flows at the time, does that constitute a unit pricing error (Y/N)?	0	4	2

The replies to the question "What is the % error threshold (tolerable pricing error) where no compensation recalculations will be processed?" were

- 1 of 0.1%
- 4 of 0.5%
- 1 of "Depends on specific circumstances"

The replies were qualified by comments such as:

- If shareholder gains at expense of fund, fund is compensated regardless of error size
- If shareholder has benefited from transactions with customers "all" customers above a trivial level would be compensated

Most companies check whether the shareholder has benefitted at the expense of the internal fund and if so, compensate the internal fund if the amount is over a materiality limit.

Most companies also maintain a log of all unit pricing errors.

	N/A	Yes	No
If the % error is below the threshold, does the company check whether the shareholder has benefitted at the expense of the internal fund and if so, compensate the internal fund if the amount is over a materiality limit (Y/N)?	1	4	1
Is a log maintained of all unit pricing errors (Y/N)?	0	5	1

The replies to the question "What is the % error threshold for recording an error in the log?" included:

- 1 of zero
- Two of 0.1%
- Materiality isn't based on % error

The replies to the question "What is the % error threshold for external reporting to the Financial Regulator?" included:

- Two of 0.5%
- 1 of "0.5% plus a monetary threshold to report details of individual incidents".
- 1 of "Compensatable errors"
- 1 of "Not just % threshold, also need to consider amounts and numbers of policyholders impacted".
- 1 of "All material errors, taking into account size of error and number of p/hs impacted"

3.5. Section 5 – Asset Transactions/ Transactions between Unit Funds

Generally, asset transactions between unit funds are processed at mid prices.

If assets are transferred between unit funds,	N/A	Bid	Mid	Offer
What basis (bid, mid, offer, last traded, other?) is used for the asset price?	1	0	4	1

The replies to the question "What basis is used for costs of acquisition/disposal (none, buying, selling) i.e. how are buying/selling cost savings shared?" included:

- Generally acquisition basis is used. In certain circumstances cost savings could be shared between the funds.
- It depends on circumstances but are generally shared evenly except for property where more benefit would be given to "seller" to reflect stamp duty saving.
- Consistent with pricing basis where possible

The same basis is generally used where the shareholder is involved.

	N/A	Yes	No
Do different rules apply if the transfer is between a unit fund and the shareholder (Y/N)?	2	0	4

The majority of companies have the shareholder seeding new unit funds. However the answers were qualified by:

- It may be by other funds if the investments are suitable
- Varies, we do both depending on the fund and suitability for other funds to invest
- Can be either

	N/A	Shareholder	Other Funds
Is initial seeding of unit funds funded by Shareholder or other unit funds (S/O)?	2	4	0

The majority favoured the viewpoint that the shareholder should generally seed a new unit fund.

		N/A	A	B
(ii)	Which of (A) or (B) do you think is more appropriate (A/B)?	1	3	2
(A)	The shareholder should normally seed the new unit fund			
(B)	It is acceptable for a Managed Fund to seed the new unit fund provided that it is an appropriate investment at an appropriate price			

A situation that arises in practice is where an investment property is ear-marked for a new fund and there could be a time-lag between acquiring the property and 'selling it on' to the new fund. In the interim, the acquisition of the property could be funded by either the shareholder or some other internal funds. This gives rise to a potential conflict of interest situation in that other internal funds could be undertaking a short-term investment in an illiquid investment where market sentiment could change very quickly. This raises issues such as the size of the risk premium that the other internal funds should charge to compensate for the significant downside risk in becoming a forced long-term investor if market outlook deteriorates.

An interesting topical question is what has happened in practice where an internal fund set out to provide the short-term funding for such a property acquisition and the envisaged policyholder flows for the new fund have not materialized? Has the internal fund become a long-term holder of the property with significant initial mark to market write-downs? Was this part of the normal risk undertaken by the internal fund in providing the envisaged short-term finance?

The replies indicated that in a majority of cases in practice the shareholder funded the property acquisition.

	N/A	Shareholder	Other Funds
If a property is intended to be syndicated and there could be a time-lag between acquiring the property and 'selling it on' to policyholders, is the property acquisition funded by the shareholder or other funds (S/O)?	3	2	1

Interestingly a majority favoured the view

- It is acceptable for a (property) fund to provide the short-term finance provided it is a willing buyer and the entry and exit prices are appropriate rather than
- Other (property) funds should not be involved in the transactions and thus either the shareholder should provide the funding or else the acquisition of the property asset should follow the receipts of investments from policyholders

These replies appear somewhat inconsistent with the replies to the previous question where the actual practice is for the shareholder to provide the short-term finance. The Working Party felt that this might be because of how the term exit price had been interpreted. It might be that the shareholder effectively provides an implied indemnity to the other internal fund whereby the internal fund provides the financing without underwriting the investment risk. In such a case, the internal fund effectively has an option to sell to the shareholder at the original price and this might be how an appropriate exit price has been interpreted.

(ii)	Which of (A) or (B) do you think is more appropriate (A/B)?	N/A	A	B
(A)	Other (property) funds should not be involved in the transactions and thus either the shareholder should provide the funding or else the acquisition of the property asset should follow the receipts of investments from policyholders	2	1	3
(B)	It is acceptable for a (property) fund to provide the short-term finance provided it is a willing buyer and the entry and exit prices are appropriate			

The majority view was that it was appropriate for Managed funds to buy units in the property funds where the property funds were experiencing policyholder outflows and the outlook for property investment was adverse and liquidity in the property funds was low.

Suppose the property funds are experiencing policyholder outflows and the outlook for property investment is adverse and liquidity in the property funds is low.	N/A	Yes	No
Is it appropriate for other funds e.g. Managed funds to buy units in the property funds (Y/N)?	3	2	1

The replies to the question "If so, who makes the decision?" included:

- It would have to be an investment decision, so fund manager in conjunction with others.
- Fund manager
- CIO would make decision for the managed fund, without consideration of the Property funds needs
- Investment Manager / Appointed Actuary

Balancing the respective interests of the property fund policyholders and the managed fund policyholders is no easy matter in such circumstances.

This raises question such as "What is the basis of independent valuations? Is it open-market value, fire-sale, long-term economic value?"

The replies to the question “Who decides what an appropriate price is?” included:

- Appointed Actuary, Board approval if significant , will be based on independent valuations
- Valuation by investment manager, pricing basis set by AA
- CIO
- Investment Manager / Appointed Actuary

A minority of companies do stock lending.

	N/A	Yes	No
Do funds participate in stock lending (Y/N)?	0	2	4

The fee basis varies.

		N/A	A	B	C
	If so, which basis do you allocate fees on?	4	0	1	1
(A)	The full fee goes to fund i.e. stock lending expenses are 100% borne by manager				
(B)	Full fee less investment expenses cost of doing stock lending.				
(C)	Net fee from external provider				

In general, the policyholder bears the risk of a default in stock lending.

	N/A	Policyholder	Shareholder
Who bears the risk of a default in stock lending, policyholder or shareholder (P/S)?	3	2	1

One company considered it disadvantageous not to carry out stock lending (provided appropriate steps are taken to reduce risks involved to be commensurate with the fund mandate).

	N/A	Yes	No
Is the right to carry out stock lending specifically included as part of the fund mandate (Y/N)?	4	1	1
Do you consider it disadvantageous to the fund NOT to carry out stock lending (Y/N)?	3	1	2

3.6. Section 6 – Fund Operation

Three companies replied that property funds were provided on both an open-ended basis and closed-end basis.

	N/A	Open-ended	Closed-ended
If you offer property funds, do you provide these on an open-ended basis or closed-end basis (O/C)?	5	1	0

The replies to the question "What is the maximum deferred period in months on encashments/switches" were

- For bond/equity funds the replies included 1 of 1 month, 2 of 6 months and 1 of 12 months (1 had "For some policies there is an unlimited deferred period")
- For property funds, the replies included 2 of 6 months, 1 of 12 months and 1 of 24 months (1 had "For most geared property funds there is an unlimited deferred period")
- 1 had "Deferred periods specified at product level"

In general, policyholders take the risk of a default on bank deposits. This was qualified by

- "Some funds are guaranteed, others are not"
- "Unless fund was specifically guaranteed"
- "Except where an explicit price g'tee is provided"

	N/A	Policyholder	Shareholder
Are your cash funds guaranteed e.g. if a bank defaulted on a deposit would the policyholder or the shareholder take the hit (P/S)?	1	5	0

The practice is to charge custodian fees, security acquisition & disposal costs and property maintenance expenses directly to the internal funds.

	What costs are charged to the unit funds in addition to the specified company charges such as annual management charges?	N/A	Yes	No
(i)	Custodian Charges (Y/N)	0	5	1
(ii)	Acquisition & Disposal Costs(Y/N)	0	6	0
(iii)	Property Maintenance Expenses(Y/N)	2	4	0
(iv)	Price Publication Fees(Y/N)	3	0	3
(v)	Stock Lending Fees(Y/N)	5	1	0

The "No" replies to the question "Does the marketing material disclose that such costs are chargeable to the unit funds (Y/N)?" included comments such as

- Policy Document does
- Policy doc details costs charged to unit funds

	N/A	Yes	No
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Does the marketing material disclose that such costs are chargeable to the unit funds (Y/N)?	1	2	3
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In practice, the management fees charged to internal funds apply appropriately for charges applied to investments in other in-house (or group company) funds.

	N/A	Yes	No
If a unit fund invests in another in-house fund (or a fund operated by a group company), is it the case that the total management charges applied are as per the management charges disclosed to the customer (e.g. by rebating to the unit fund the amount of the additional charges from the other funds) (Y/N)?	1	5	0

In practice, there is disclosure of both internal and external fund charges in fund of funds.

	N/A	A	B
In disclosures for fund of funds what charges are allowed for (A/B)?	1	1	4
(A) Just Internal charges			
(B) Internal and External Charges			

Fund rules are generally disclosed in policy documents. One said "Available on request"

	N/A	Yes	No
Are fund rules disclosed in policy documents (Y/N)?	1	3	2
Do you believe that if fund rules are clearly set out in marketing material, then you do not have to follow best practice (Y/N)?	1	1	4

In general, the policyholder bears the risk of default on guarantees provided by third parties. This was qualified by comments such as:

- "Provided this has been fully disclosed"
- "As long as clearly specified in documentation that this is the case"

	N/A	Policyholder	Shareholder
If guarantees are provided by third parties, what happens on default? Is the risk of default borne by the policyholder or the shareholder (P/S)?	0	6	0

Companies believed that investment guidelines for unit funds were well defined and appropriately communicated to policyholders. One of the "N/A" replies was "Well-defined, but not published".

	N/A	Yes	No
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		s	o
Are investment guidelines for unit funds well defined and appropriately communicated to policyholders (Y/N)?	2	4	0

3.7. Section 7 – Tax Issues and Tax Losses

In general, it is company policy that value from tax losses within a unit fund should accrue to the shareholder only in exceptional circumstances.

One of the “No” answers “Value for losses given to policyholder in all cases, not shareholder” was effectively a stronger “Yes” answer.

	N/A	Ye s	N o
Is it company policy that value from tax losses within a unit fund should accrue to the shareholder only in exceptional circumstances e.g. where a unit fund ceased with tax losses and it was not reasonably possible to transfer such tax losses to other funds(or the shareholder) for value at earlier periods (Y/N)?	0	4	2

There were differing practices on whether or not the company actively sought to transfer tax losses (unlikely to be relieved) in one fund at an appropriate price to other internal funds which can utilise those tax losses. One of the “No” answers “but value will be given if the losses are offset by gains in other funds” was effectively a “Yes”.

Similar replies were received as to whether or not the company actively sought to transfer such tax losses at an appropriate price to the shareholder.

	Where a unit fund has realised tax losses and such losses are unlikely to be tax relieved within the fund itself, does the company actively seek to:	N/A	Ye s	N o
(i)	Transfer such tax losses at an appropriate price to other internal funds which can utilise those tax losses (Y/N)?	1	2	3
(ii)	Transfer such tax losses at an appropriate price to the shareholder itself if it can use those tax losses (Y/N)?	1	2	3

Surprisingly, a majority of companies didn’t place % limits on the % of the fund value that can be represented by the value of tax losses.

		N/A	Ye s	N o
	Does the company place % limits on the % of the fund value that can be represented by the value of tax losses (Y/N)?	0	2	4

The placing of an appropriate value on tax losses is a complex issue. This is likely to depend on a number of factors such as whether the fund is on a cancellation or creation pricing basis, the expected fund inflow/outflow position for the foreseeable future, the size of the tax losses as a % of the assets value, the investment outlook for the fund, etc.

Consider the scenario where a fund which has tax losses is experiencing an on-going net outflow position (which is not expected to reverse); where the fund is being priced on a cancellation basis and where there is considerable doubt about whether or not the tax losses are likely to be tax relieved within the fund itself. In this scenario, the exiting policyholders at a valuation date are leaving their share of the tax losses at the valuation date in the fund and possible value could accrue to the continuing policyholders in the future from those tax losses. Consequently, the issue is what % tax relief value ought to be placed on the tax losses as that value effectively determines the consideration paid by the continuing policyholders to the exiting policyholders. The potential value is a contingent value where the probability of the scenarios where value might arise (from the exiting policyholders' share of the tax losses) needs to be assessed.

Actuaries might take different views on the value to be placed on the tax losses in this scenario.

- One perspective is that the size of tax losses as a % of the assets value is directly relevant in determining the % tax relief value that ought to be placed on the tax losses and that the higher the size of tax losses as a % of the assets value, the lower the % tax relief value that ought to be placed on the tax losses. That % figure could be zero. The argument is that if the continuing unit-holders share of tax losses at a point in time were likely to be sufficient to cover their future likely investment return (without recourse to the tax losses left behind by the exiting unit-holders) that no consideration should be paid to the exiting unit-holders in respect of their share of tax losses left behind in the fund. In other words the % tax relief value to be placed on tax losses would differ depending on whether the size of tax losses as a % of the assets value was say 5% or 80%.
- An alternative perspective is that the size of tax losses as a % of the assets value is not relevant in determining the % tax relief value that ought to be placed on the tax losses and that a reasonable value can be given whilst ensuring that value for tax losses is not excessive as a % of fund and that there is a strong likelihood that not all policyholders will exit in a short time.

These perspectives might seem quite differ but in practice with the latter perspective the proviso that value for tax losses is not excessive as a % of fund would result in the % tax relief value being placed on the tax losses being flexed having regard to the size of tax losses as a % of the assets value.

The survey results are that companies don't place a zero value on tax losses within the fund even where there is no realistic prospect in the short-term of transferring the tax losses to other funds (or the shareholder) for value. One commented "Even on a cancellation basis the fund can still potentially gain benefit from tax losses in the future as it can still be a tax payer in the future. In this circumstance a value is placed on the losses within the fund".

	N/ A	Ye s	N o
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If a unit fund is being priced on a cancellation basis, does the company place a zero value on tax losses within the fund if there is no realistic prospect in the short-term of transferring the tax losses to other funds (or the shareholder) for value (Y/N)?	1	0	5
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It is accepted that there might be legitimate circumstances where the shareholder might benefit from tax losses within unit funds. For example, a fund might be closed with tax losses at a point in time where payment of a consideration for those tax losses by another fund or by the shareholder might not reasonably be warranted. However, circumstances might change in the future whereby the shareholder subsequently received value for those tax losses. Is there a case that unit-holders at the time that the fund is closed should receive a possible future contingent payment particularly if the life company has itself chosen to close the fund?

The issue is whether or not, for the viewpoint of transparency, that there should be a requirement for disclosure to the Financial Regulator (on the basis that the life company would expect to be clearly able to justify the appropriateness of the circumstances) of what might be considered to be windfall gains. There is a regulatory obligation on life companies to disclose transactions with connected parties but this scenario falls outside that obligation.

There was a consensus that, where the shareholder benefits from tax losses within unit funds, that there should not be a requirement for disclosure to the Financial Regulator.

	N/A	Yes	No
If the shareholder benefits from tax losses within unit funds, should there be a requirement for disclosure to the Financial Regulator (Y/N)?	2	0	4
Are group tax gains made on gross unit funds which on a stand-alone basis which would not get this tax benefit shared with unit fund? Should any likely group tax gains be treated as a charge for disclosure (Y/N)?	3	0	3

Life companies appear to pass on tax benefits received to the originating funds.

		N/A	Yes	No
	If tax benefits arise to the company from assets (fully/partially) held for gross funds, is the value given to the unit fund (Y/N)?			
(i)	If a gross fund acquires an asset which attracts capital allowances which can be used to reduce company tax bill (net of provision for balancing charges), is the value given to the unit fund (Y/N)?	6	0	0
(ii)	If a gross fund receives dividends with foreign tax credits and the company is able to use some proportion of these to reduce company tax bill, is the value given to the unit fund (Y/N)?	3	3	0

There was a 50/50 split as to whether or not tax deductions from the unit funds were processed to coincide with the dates of payment of corporation tax (so that the company doesn't receive a cash-flow benefit).

	N/ A	Ye s	N o
Are tax deductions from the unit funds processed to coincide with the dates of payment of corporation tax (so that the company doesn't receive a cash flow benefit) (Y/N)?	0	3	3

Survey Results -IFSC

4.1. Section1 – Valuation Methodology

There is a rough 50-50 split between in-house and out-sourced unit pricing.

	N/A	Internal	Outsourced
Is the unit pricing function internal or outsourced (I/O)?	0	6	5

In general there is a comprehensive documented unit pricing methodology but there are differences in the approval process. The “Other” generally is the Investment Committee, Management and sometimes the Appointed Actuary in conjunction with the others. The Appointed Actuary doesn’t have the same central role in approval as generally pertains with the domestic Irish companies. This would reflect the fact that the Appointed Actuary role is more likely to be out-sourced for IFSC companies.

	N/A	Board	Parent Company	Other
By whom has it been approved (e.g. Board, Parent Co., Other, etc)?	2	1	2	6

In the majority of cases, it is a committee (e.g. unit pricing committee, investment committee) that has the delegated responsibility to oversee the funds’ pricing arrangements. Again, the Appointed Actuary doesn’t have the same central role in delegated responsibility as generally pertains with the domestic Irish companies.

	N/A	Committee	Appointed Actuary	Other
Who has delegated responsibility to oversee the funds’ pricing arrangements (e.g. Committee, Appointed Actuary, Other, etc)?	0	5	2	4

The Appointed Actuary has a more central role in the delegated responsibility to ensure fairness to customers in the application of unit pricing policies.

	N/A	Committee	Appointed Actuary	Other
Who has delegated responsibility to ensure fairness to customers in the application of unit pricing policies (e.g. Committee, Appointed Actuary, Other, etc)?	0	5	5	1

The majority of companies deal with the unit fund on a forward pricing basis for both single premium business and regular premium business. For single premiums, one of the “No” answers was qualified by “Mostly Yes”.

	Does the company always deal with the unit fund on a forward pricing basis	N/A	Yes	No
(i)	For single premiums (Y/N)?	0	9	2
(ii)	For regular premiums (Y/N)?	2	7	2

Stock valuation points are routinely based on a fixed point in time. This differed from the domestic companies where they were routinely based on previous close of business valuation point.

(i)	Are stock valuation points based on (A/B)?	N/A	A	B
(A)	A fixed point in time	1	6	4
(B)	Previous close of business prior to fixed point			

There was a small majority practice to disclose the stock valuation points externally. This differed from the practice for the domestic companies.

The non-disclosure of revaluation dates for Property was expected reflecting the more infrequent revaluation of property and the greater scope for policyholders to exploit this for short-term gain.

		N/A	Yes	No
(ii)	Are the stock valuation points disclosed externally (Y/N)?	0	6	5
(iii)	Are the revaluation dates for Property funds disclosed externally (Y/N)?	7	0	4

The general approach to deriving stock prices for a particular stock market if it were closed on a particular date varied. Of the 8 replies:

- 7 use value at close of business on most recent trading date i.e. stale or previous prices
- One was that manager may adjust on basis of futures.

It appears that in most instances the use of the previous set of prices is unconditional. This is perhaps an area that requires some review as certainly the approach of using indexed security prices appears more robust.

The answers to the next question were somewhat surprising. In hindsight, this might be because the question was somewhat ambiguous. The question intended to ask about the set of prices that would routinely be based on prices close of business Monday. The valuation point is a fund level parameter rather than a security level parameter. The expected answer was Monday on the basis that markets in other countries would have prices for close of business Monday (and thus the prices taken for ROI would be either unadjusted Friday or else Friday adjusted where necessary for global market movements on Monday).

One reply was “Varies by Product - each bank holiday is considered on a case by case basis”.

	N/A	Friday	Monday
If valuation point is close of business and Monday is a bank holiday in ROI but not in other countries, is the next set of unit prices based on valuation point close of business Friday or Monday?	4	3	3

There was a variety of bases used for market prices. The "Other" related to where the practice varied by product.

	N/A	Bid	Mid	Offer	Last Traded	Other
What market price is used for valuing, bid, mid, offer, last traded, other?	3	2	2	1	0	3

Costs of acquisition/disposal are sometimes allowed for at fund level.

This contrasts with the position for domestic companies where they are routinely allowed for at security level or at asset category/class level. The IFSC replies might seem strange but this is explained by the fact that the funds are generally mirror funds (and thus hold only one security). Interestingly the IFSC companies in some instances absorb these costs themselves.

	N/A	Fund	Security
Are costs of acquisitions/costs of disposals (buying/selling costs) specified at fund or security level (F/S)?	6	3	2

In general, there is authority to suspend pricing in extraordinary circumstances.

	N/A	Yes	No
Is there authority to suspend pricing in extraordinary circumstances e.g. 11 Sep 2001 (Y/N)?	0	11	0

There was a difference between companies as regards whether or not rounding is undertaken on a neutral basis.

	N/A	Yes	No
Is rounding undertaken on a neutral basis (i.e. mathematical rounding to the nearest unit of price rather than systematic rounding up or down) i.e. rounding is not used as a method of applying a charge on the unit funds (Y/N)?	0	8	3

4.2. Section 2 – Pricing Basis

It was the norm for there to be formal pre-set guidelines (or principles) for determining whether the unit pricing basis for a fund should be cancellation, creation or some intermediate basis. This contrasts with the approach of domestic companies.

Where there are formal pre-set guidelines, these are generally based on the % change in the number of units in issue exceeding specified thresholds over a specified period of time.

		N/A	Yes	No
(i)	Are there formal pre-set guidelines (or principles) for determining whether the unit pricing basis for a fund should be cancellation, creation or some intermediate basis (Y/N)?	1	7	3
(ii)	Is this based on the % change in the number of units in issue exceeding specified thresholds over a specified period of time (Y/N)?	5	4	2
(iii)	Would particular circumstances such as SSIA maturities cause different guidelines to be applied(Y/N)?	8	1	2

In the majority of cases, it is a committee (which might include the Appointed Actuary) that decides on the appropriate unit pricing basis. This contrast with the position for domestic companies where the Appointed Actuary has a central role in the determination of the appropriate unit pricing basis.

	N/A	Committee	Appointed Actuary	Other
At what level in the organisation is the decision on the appropriate unit pricing basis taken?	3	5	1	2

In practice, companies tend to apply changes in unit pricing basis on an immediate basis.

	N/A	Phased	Immediate
In practice, is a move between cancellation and creation unit prices applied on a phased or immediate basis (P/I)?	4	0	7

Some companies operate tiered fund structures.

Note 1: With Tiered Funds, the actual assets are held in held in level 1 (investing funds) with the marketing funds being level 2 and holding only unit-holdings in the level 1 investing funds. There might be only one level 1 fund holding Irish equities with multiple level 2 funds having unit-holdings in the level 1 Irish Equity fund.

The unit pricing basis is typically set at the investing fund level.

	N/A	Marketing	Investing
If a tiered (or layered) fund structure applies, is the unit pricing basis decided upon at client (marketing) level or investing level (M/I)? - See Note 1	5	1	5

With a tiered fund structure, tactical asset allocation changes for the managed funds could result in cash-flows which might necessitate a change in the unit pricing basis. This might be applied on basis A, B or other.

- Basis A: By changing the unit pricing basis price of the investing funds and letting the prices of the client funds follow accordingly and processing unit appropriations at those prices.
- Basis B: By processing unit appropriations for policyholder transactions at the normal pricing basis but processing the unit acquisitions for tactical asset allocation changes at different investing fund prices (based on a revised unit pricing basis as appropriate)

The typical approach is to process the unit-holding transactions for tactical asset allocation changes at a different set of unit prices (for the investing funds) than the standard set used for policyholder transactions. This means that the unit prices applicable to policyholder transactions are not subject to a unit pricing basis change necessitated by tactical asset allocation changes for the managed funds.

	N/A	A	B	Other
If a tiered (or layered) fund structure applies, and acquisition/disposals of units in the investing fund level by client funds (e.g. managed funds) arising from tactical asset allocation changes for the managed funds would result in a change in pricing basis according to the formal rules, how is this applied (A/B/Other)?	8	1	2	0

Buying/selling costs are not amortised.

	N/A	Yes	No
Are buying costs/ selling costs amortised (i.e. written down over a specified period) for any funds (e.g. the practice for some UCITS is to spread costs over a period for closed-end property funds) (Y/N)?	0	0	11

4.3. Section 3 – Unit Pricing Controls

In general, there is a formal sign-off process for unit pricing. Sign-off of unit pricing is generally at managerial level but sometimes at supervisor or team leader level. The sign-off for domestic companies was almost exclusively at managerial level – the lower levels for IFSC companies might be explained by the general simpler nature of the fund pricing processes.

	N/A	Yes	No

Is there a formal daily sign-off process of unit prices (Y/N)?	0	11	0
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A number of key controls are applied. The controls appear to be slightly weaker than for domestic companies in that checks (ii), (iii) and (iv) are not applied by some companies.

	Which of the following controls are applied?	N/A	Yes	No
(i)	Reasonableness of % Change In Price (Y/N)	0	11	0
(ii)	Comparison of % change in unit price to % change in fund benchmark (Y/N)	0	8	3
(iii)	Reconciliation of unit price to previous unit price (Y/N)	0	9	2
(iv)	Check that new unit creations since previous pricing date have not impacted on current unit price (Y/N)	0	9	2

There were some differences in other controls applied. In particular, some companies were not applying a specific check on the changes in currency rates. Again there was some evidence that the controls appear to be slightly weaker than for domestic companies.

	Is there percentage or absolute limits set for key elements of the valuation?	N/A	Yes	No
(i)	Movement of the prices of individual stocks (Y/N)?	2	7	2
(ii)	Change in currency rates (Y/N)?	2	5	4
(iii)	Accrual figures for income, expenses and tax (Y/N)?	2	5	4

The frequency at which unit checks were applied varied.

- Most companies operated a daily check on the reconciliation of cash balances to then bank account (domestic companies all reported this as a daily process)
- The asset register was generally reconciled to the custodian records monthly although one company reported that this was done daily. One reported a quarterly process. (domestic companies all reported monthly or more frequently)
- The validity of the pricing assumptions for the tax position of the funds was generally reviewed quarterly or less frequently.
- Procedures and controls are generally reviewed half-yearly or yearly (this was more frequently than for domestic companies)

	N/A	Daily	Weekly	Monthly	Quarterly	Half - Yearly	Yearly	Other

At what frequency is cash reconciled to the bank account?	1	7	1	0	0	0	0	2
At what frequency is the asset register reconciled to custodian records	0	1	0	9	1	0	0	0
At what frequency is the validity of the pricing assumptions for the tax position of the funds reviewed?	4	0	0	1	4	0	1	1
At what frequency are the procedures and controls externally reviewed?	0	0	0	1	0	3	5	2

There are varying controls/procedures are in place to ensure that investment transactions are updated promptly.

- For some companies, the primary control is through daily bank reconciliations which serve to highlight any incorrect or missing transactions. Of the 10 replies to this question, three specifically mentioned bank reconciliations (and two of these three also mentioned checks on outstanding settlements).
- For others, the primary control is through the robustness of the straight-through processing of trades from the front office system (e.g. "Automated daily process for recording investment transactions, which includes implicit checks" or "Pending deals keyed on same day as placed; settled deals keyed in line with payment or receipt of contract note")
- Others controlled through unit pricing checklists (e.g. "Unit pricing checklists reviewed daily" or "The checks of price movements when NAVs have been run will also highlight if there are any rogue transactions affecting fund prices" or "Creation of Units and Capture of Contracts should be checked on a daily basis when prices are being generated")
- Others had procedures to check deals against policyholder unit transactions (e.g. "Deals placed with fund managers reconciled daily to policyholder unit movements" or "Liabilities Process"). The question was not intended to determine what procedures are in place to ensure that appropriate matching deals are placed but rather what procedures ensure that whatever deals are placed are updated promptly

The replies did contrast with those of the domestic companies which placed greater emphasis on bank reconciliations and reconciliation to the custodian records or to the fund managers' records.

Unit prices and company financial statements are typically generated from the same asset register database. In the majority of cases, there was a general ledger within the unit pricing software. This contrasted with the position for domestic companies.

		N/A	Yes	No
	Are unit prices and company financial statements generated from the same asset register database (Y/N)?	0	10	1
(i)	Does the unit pricing software contain a general ledger (Y/N)?	0	8	3

(ii)	If so, are the daily fund valuations used in deriving the unit prices reconciled to the general ledger fund balances (Y/N)?	3	5	3
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There was a mixture of external systems and in-house applications for the unit pricing software.

	N/A	Package	In-House
Is the unit pricing software a package or an in-house application (P/I)?	0	5	6

Unit pricing is subject to internal audit/external review.

	N/A	Yes	No
Has unit pricing subject to internal audit/external review in the last three years(Y/N)?	0	10	1

4.4. Section 4 – Unit Pricing Errors

Surprisingly there was a lack of consensus with the Dublin Funds Industry Association Guidance Paper 6 definition "A pricing error is defined as one or more errors in the computation of the net asset value which, when considered cumulatively, result in a difference between the original computed net asset value ("NAV") and the corrected NAV of at least 0.01% per share".

The question was framed in the context of what is an error and not what is a compensatable error.

Of the six that disagreed,

- Three disagreed based on size of error suggesting 5, 10 and 20 basis points.
- It wasn't clear why the other three disagreed.

One company, whilst agreeing, indicated that it uses the ABI "A Guide of Good Practice for Unit Linked Funds".

	N/A	Yes	No
Would you agree with the Dublin Funds Industry Association Guidance Paper 6 definition "A pricing error is defined as one or more errors in the computation of the net asset value which, when considered cumulatively, result in a difference between the original computed net asset value ("NAV") and the corrected NAV of at least 0.01% per share" (Y/N)?"	0	5	6

As regards the definition of a compensatable error, 10 of 11 agreed with the definition.

The one that disagreed suggested that "based on ABI guidelines. Compensation is determined by materiality rather than cause. One company that used ABI guidelines, agreed.

The issue here is that the DFIA definition absolves the life company of responsibility for compensation if the error was not its fault or that of one of its agents. An example might be where an incorrect asset price was received and reasonableness tests could not have been expected to detect the error.

	N/A	Yes	No
Would you agree with the Dublin Funds Industry Association Guidance Paper 6 definition "A compensatable error is defined as one resulting from a mistake or negligence on behalf of the Manager, Directors, the Registrar, the Administrator or their respective delegates involved in the NAV calculation. Examples of mistakes would include incorrect input of data, improper checking, incorrect interpretation of data and the adoption of an interpretation that would not be considered reasonable by another professional. Negligence would include an inadequate control environment or incompetent staff." (Y/N)?	0	10	1

There was a clear majority that subjective elements of the pricing basis don't override the requirement for an error of fact or invalid assumption to be classified as a unit pricing error.

	N/A	Yes	No
Would you agree that the scope for applying discretion for other subjective elements of the pricing basis doesn't override the requirement for an error of fact or invalid assumption to be classified as a unit pricing error (Y/N)?	1	10	0
Would you agree that, if the compensatable error threshold is 0.5% and a error of 0.6% arose, that discretionary elements of the pricing basis which might change the unit price by say 0.2% shouldn't allow the error to be classified as non-compensatory (Y/N)?	1	9	1

Unfortunately, the next set of survey questions was ambiguous.

The intention was that the questions were meant to be interpreted as

- (i) If incorrect data is received from a third party, does that constitute a unit pricing error?
- (ii) If incorrect data is received from a third party and the data error could not have been reasonably detected, does that constitute a unit pricing error?
- (ii) If incorrect data is received from a third party and the data error could not have been reasonably detected but the third party was part of the same group, does that constitute a unit pricing error?
- (ii) If incorrect data is received from a third party and the third party has a contractual relationship including provision for compensation for errors, does that constitute a unit pricing error?

Thus, if a company believed that incorrect data received from a third party was always an error, it would answer yes to (i) and "N/A" to (ii), (iii) and (iv).

The expectation was that the answers to (i) would be "Yes" and that there would be some "No" answers to (ii) and that there would be a lower number (or none) of "No" answers to (iii) and (iv) than for (ii).

The replies to the questions about whether incorrect data received from third parties represented unit pricing errors were somewhat surprising. The pattern of the replies was fundamentally different to that from domestic companies (also shown below).

- One company believed, where incorrect data was received from a third party (e.g. provider of market price data) on which the company relies, that constituted a unit pricing error without qualification. It was following the ABI guide.
- Seven companies believed that incorrect data received from a third party where that incorrect data could not have been reasonably detected by the life company didn't constitute a pricing error. In contrast, all the domestic companies thought that was a unit pricing error.
- Five companies believed that incorrect data received from a third party (where that incorrect data could not have been reasonably detected) where the third party was a group company of the life company didn't constitute a pricing error. In contrast, all the domestic companies thought that was a unit pricing error.
- Three companies believed that incorrect data received from a third party where the third party had a contractual obligation to pay compensation didn't constitute a pricing error. In contrast, all the domestic companies thought that was a unit pricing error.

	If incorrect data is received from a third party (e.g. provider of market price data) on which the company relies, does that constitute a unit pricing error?	N/A	Yes	No
(i)	Y/N?	0	11	0
(ii)	Yes but only if error ought to have reasonably detected (Y/N)?	1	3	7
(iii)	If the third party is part of the same group (Y/N)?	2	4	5
(iv)	If the third party has a contractual relationship including provision for compensation for errors (Y/N)?	3	5	3

Domestic

	If incorrect data is received from a third party (e.g. provider of market price data) on which the company relies, does that constitute a unit pricing error?	N/A	Yes	No
(i)	Y/N?	0	5	1
(ii)	Yes but only if error ought to have reasonably detected (Y/N)?	3	3	0
(iii)	If the third party is part of the same group (Y/N)?	4	2	0
(iv)	If the third party has a contractual relationship including provision for compensation for errors (Y/N)?	4	2	0

Surprisingly, seven companies believed that it wasn't a unit pricing error if a fund is priced on a pricing basis (e.g. cancellation or creation or other) for a period of time which is subsequently found to be inappropriate based on known on-going fund cash-flows at the time. Four of six domestic company replies thought that it was.

	N/A	Yes	No

	A	s	o
If a fund is priced on a pricing basis (e.g. cancellation or creation or other) for a period of time which is subsequently found to be inappropriate based on known on-going fund cash flows at the time, does that constitute a unit pricing error (Y/N)?	1	3	7

Of 11 replies to the question "What is the % error threshold (tolerable pricing error) where no compensation recalculations will be processed?"

- 1 for 5bps (a tolerance of £50 is applied at an individual investor level for materiality)
- 3 were for 10 bps (one specified a de minimus limit of €20),
- 1 for 20 bps (Compensation only paid if above a min monetary threshold)
- 5 for 50bps (one said that "a tolerance of £50 is applied at an individual investor level for materiality" and one said "for 10 bps – 50 bps – errors are reported and investigated; compensation is considered but not normally required")
- 1 said "No Percentage applied, compensation will be paid to clients if error is above £10".

There was a general answer of 50bps for domestic companies.

Surprisingly not all companies check whether the shareholder has benefitted at the expense of the internal fund and if so, compensate the internal fund if the amount is over a materiality limit.

All companies also maintain a log of all unit pricing errors.

		N/ A	Ye s	N o
(i)	If the % error is below the threshold, does the company check whether the shareholder has benefitted at the expense of the internal fund and if so, compensate the internal fund if the amount is over a materiality limit (Y/N)?	1	4	6
(ii)	Is a log maintained of all unit pricing errors (Y/N)?	0	11	0

The replies to the question "What is the % error threshold for recording an error in the log?" were:

- 6 of zero
- 1 of 5 bps
- 2 of 10 bps
- 1 of "Client is notified of all pricing errors and client determines materiality"

The replies to the question "What is the % error threshold for external reporting to the Financial Regulator?" included:

- Five of 0.5%
- 1 of 0.1%
- 1 of "No fixed tolerance for this. Notification would depend on a number of issues"
- 1 of "Assuming Clients have been compensated as a result of the error and the total compensation amount is material."

- 1 of "Material Errors for reporting to the Financial Regulator are considered based on their monetary effect rather than based on % threshold".
- 2 unspecified

4.5. Section 5 – Asset Transactions/ Transactions between Unit Funds

Generally, asset transactions between unit funds are processed at mid prices. The "Other" was "Only one NAV price per asset".

If assets are transferred between unit funds,	N/A	Bid	Mid	Offer	Last Traded	Other
What basis (bid, mid, offer, last traded, other?) is used for the asset price?	6	0	3	0	1	1

The replies to the question "What basis is used for costs of acquisition/disposal (none, buying, selling) i.e. how are buying/selling cost savings shared?" included:

- 1 of "Shared between the funds involved equally"

The same basis is generally used where the shareholder is involved.

	N/A	Yes	No
Do different rules apply if the transfer is between a unit fund and the shareholder (Y/N)?	6	1	4

Most companies have the shareholder seeding new unit funds. One answer was qualified by "Varies, we do both depending on the fund and suitability for other funds to invest".

	N/A	Shareholder	Other Funds
Is initial seeding of unit funds funded by Shareholder or other unit funds (S/O)?	2	9	0

The majority favoured the viewpoint that the shareholder should generally seed a new unit fund. This was a more decisive majority than for domestic companies.

		N/A	A	B
(ii)	Which of (A) or (B) do you think is more appropriate (A/B)?	2	7	1
(A)	The shareholder should normally seed the new unit fund			

(B)	It is acceptable for a Managed Fund to seed the new unit fund provided that it is an appropriate investment at an appropriate price			
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The questions on property generally solicited a "N/A" reply for the IFSC companies.

A minority of companies do stock lending.

	N/A	Yes	No
Do funds participate in stock lending (Y/N)?	1	1	9

	N/A	A	B	C
If so, which basis do you allocate fees on?	10	0	0	1
(A) The full fee goes to fund i.e. stock lending expenses are 100% borne by manager				
(B) Full fee less investment expenses cost of doing stock lending.				
(C) Net fee from external provider				

In general, the policyholder bears the risk of a default in stock lending.

	N/A	Policyholder	Shareholder
Who bears the risk of a default in stock lending, policyholder or shareholder (P/S)?	9	2	0

	N/A	Yes	No
Is the right to carry out stock lending specifically included as part of the fund mandate (Y/N)?	8	0	2
Do you consider it disadvantageous to the fund NOT to carry out stock lending (Y/N)?	7	0	3

4.6. Section 6 – Fund Operation

Property funds are generally provided on an open-ended basis. For some others, the property funds hold collective vehicles only (like OEICs) - no direct property held.

	N/A	Open-ended	Close-ended
If you offer property funds, do you provide these on an open-ended basis or closed-end basis (O/C)?	7	4	0

The replies to the question "What is the maximum deferred period in months on encashments/switches" were

- For bond/equity funds the replies included 1 of 1 month, 2 of 6 months, 1 of 12 months and 2 had "Indefinite"
- For property funds, the replies included 3 of 6 months, 1 of 12 months and 1 had "Indefinite"

In general, policyholders take the risk of a default on bank deposits. In one case, this was qualified by "Unless fund was specifically guaranteed"

	N/A	Policyholder	Shareholder
Are your cash funds guaranteed e.g. if a bank defaulted on a deposit would the policyholder or the shareholder take the hit (P/S)?	2	8	1

There were varying practices on charging custodian fees, security acquisition & disposal costs, property maintenance expenses and price publication fees directly to the internal funds.

Examples of other charges that are applied in some instances include:

- Audit fees, bank charges and some sundry administrator charges subject to a defined upper limit
- An element of performance fees
- The policy conditions allow for the costs of administering the funds to be deducted from the funds.

	What costs are charged to the unit funds in addition to the specified company charges such as annual management charges?	N/A	Yes	No
(i)	Custodian Charges (Y/N)	1	5	5
(ii)	Acquisition & Disposal Costs(Y/N)	1	6	4
(iii)	Property Maintenance Expenses(Y/N)	6	1	4
(iv)	Price Publication Fees(Y/N)	2	2	7
(v)	Stock Lending Fees(Y/N)	7	0	4

	N/A	Yes	No
Does the marketing material disclose that such costs are chargeable to the unit funds (Y/N)?	2	7	2

In practice, the management fees charged to internal funds apply appropriately for charges applied to investments in other in-house (or group company) funds.

	N/A	Yes	No
If a unit fund invests in another in-house fund (or a fund operated by a group company), is it the case that the total management charges applied are as per the management charges disclosed to the customer (e.g. by rebating to the unit fund the amount of the additional charges from the other funds) (Y/N)?	2	8	1

In practice, there is disclosure of both internal and external fund charges in fund of funds.

	N/A	A	B
In disclosures for fund of funds what charges are allowed for (A/B)?	2	0	9
(A) Just Internal charges			
(B) Internal and External Charges			

Fund rules are generally disclosed in policy documents.

	N/A	Yes	No
Are fund rules disclosed in policy documents (Y/N)?	2	6	3
Do you believe that if fund rules are clearly set out in marketing material, then you do not have to follow best practice (Y/N)?	1	3	7

In general, the policyholder bears the risk of default on guarantees provided by third parties. This was qualified by comments such as:

- "Company would review each case as it happens but legally policyholder bears counterparty risk."
- "As long as clearly specified in documentation that this is the case"

	N/A	Policyholder	Shareholder
If guarantees are provided by third parties, what happens on default? Is the risk of default borne by the policyholder or the shareholder (P/S)?	5	6	0

Companies believed that investment guidelines for unit funds were well defined and appropriately communicated to policyholders.

	N/A	Yes	No
Are investment guidelines for unit funds well defined and appropriately communicated to policyholders (Y/N)?	1	10	0

4.7. Section 7 – Tax Issues and Tax Losses

In general, it is company policy that value from tax losses within a unit fund should accrue to the shareholder only in exceptional circumstances.

	N/A	Yes	No
Is it company policy that value from tax losses within a unit fund should accrue to the shareholder only in exceptional circumstances e.g. where a unit fund ceased with tax losses and it was not reasonably possible to transfer such tax losses to other funds(or the shareholder) for value at earlier periods (Y/N)?	4	6	1

There was a majority for “No” for whether or not the company actively sought to transfer tax losses (unlikely to be relieved) in one fund at an appropriate price to other internal funds which can utilise those tax losses. Similar replies were received as to whether or not the company actively sought to transfer such tax losses at an appropriate price to the shareholder.

The domestic companies had a small majority for “No”.

	N/A	Yes	No
Where a unit fund has realised tax losses and such losses are unlikely to be tax relieved within the fund itself, does the company actively seek to:			
(i) Transfer such tax losses at an appropriate price to other internal funds which can utilise those tax losses (Y/N)?	6	1	4
(ii) Transfer such tax losses at an appropriate price to the shareholder itself if it can use those tax losses (Y/N)?	6	1	4

Surprisingly, a majority of companies didn’t place % limits on the % of the fund value that can be represented by the value of tax losses.

	N/A	Yes	No
Does the company place % limits on the % of the fund value that can be represented by the value of tax losses (Y/N)?	5	2	4

The survey results were 50-50 on whether companies place a zero value on tax losses within the fund even where there is no realistic prospect in the short-term of transferring the tax losses to other funds (or the shareholder) for value.

This contrasted with domestic companies where all replies supported not placing a zero value on such tax losses.

	N/A	Yes	No
If a unit fund is being priced on a cancellation basis, does the company place a zero value on tax losses within the fund if there is no realistic prospect in the short-term of transferring the tax losses to other funds (or the shareholder) for value (Y/N)?	5	3	3

There was a consensus that, where the shareholder benefits from tax losses within unit funds, that there should not be a requirement for disclosure to the Financial Regulator.

Some companies replied that group tax gains made on gross unit funds which on a stand- alone basis which would not get this tax benefit are not shared with the unit fund.

	N/ A	Ye s	N o
If the shareholder benefits from tax losses within unit funds, should there be a requirement for disclosure to the Financial Regulator (Y/N)?	7	1	3
Are group tax gains made on gross unit funds which on a stand-alone basis which would not get this tax benefit shared with unit fund? Should any likely group tax gains be treated as a charge for disclosure (Y/N)?	8	1	2

Life companies appear to pass on tax benefits received to the originating funds.

	N/ A	Ye s	N o
If tax benefits arise to the company from assets (fully/partially) held for gross funds, is the value given to the unit fund (Y/N)?			
(i) If a gross fund acquires an asset which attracts capital allowances which can be used to reduce company tax bill (net of provision for balancing charges), is the value given to the unit fund (Y/N)?	11	0	0
(ii) If a gross fund receives dividends with foreign tax credits and the company is able to use some proportion of these to reduce company tax bill, is the value given to the unit fund (Y/N)?	8	3	0

Life companies seem to receive a cash-flow benefit because tax deductions from the unit funds are not processed to coincide with the dates of payment of corporation tax.

	N/ A	Ye s	N o
Are tax deductions from the unit funds processed to coincide with the dates of payment of corporation tax (so that the company doesn't receive a cash-flow benefit) (Y/N)?	7	1	3

Ireland

5.1. Regulatory Background

The Central Bank and Financial Services Authority of Ireland is responsible for the supervision of Insurance Companies in Ireland.”

The legislation relevant to the regulation of Life Insurance Undertakings is silent on the issue of unit pricing guidance. The Financial Regulator has issued no specific guidance on unit pricing.

We believe that a survey of the then market practice was compiled by the Consumer Protection area of the Financial Regulator about four years ago but results were never published.

5.2. Consumer Protection Code

The Consumer Protection Code (“Code”) dated August 2006 issued by the Irish Financial Services Regulatory Authority (“Financial Regulator”) applies to entities regulated by the Financial Regulator, pursuant to powers under the following legislation:

- the Central Bank Acts 1942 to 1998 (including without limitation Section 33S(6) of the Central Bank Act 1942);
- the Investment Intermediaries Act 1995;
- the Consumer Credit Act 1995;
- the Stock Exchange Act 1995;
- the Insurance Acts 1909 to 2000; and
- relevant statutory instruments.

In Chapter 2: Common Rules for all Regulated Entities

45 A regulated entity must:

- a) speedily, efficiently and fairly, correct an error in any charge or price levied on, or quoted to, a consumer in respect of any product or service the subject of this Code;
- b) where the regulated entity considers that there may have been a material charging or pricing error, without delay, inform the Financial Regulator of its proposals for correcting any such error as may have occurred in accordance with paragraph a) above (if any such information is provided verbally in the first instance, it must be provided to the Financial Regulator in writing on the next business day); and
- c) notify all affected consumers, both current and former, in a timely manner and in such form as may be agreed with the Financial Regulator, of any material charging or pricing error that impacted negatively on the cost of the service or the value of the product provided.

There could be some potential for an interpretation of a) above that a company should compensate for all pricing errors regardless of materiality. The Working Party don't read "correct an error in any ...price...quoted to a consumer" to mean that a company necessarily needs to compensate. In particular points b) and c) clearly allow for the fact that there may be pricing errors that are immaterial. Our interpretation of a) is that, where you find an error in a unit price calculation, you should "speedily, efficiently and fairly" fix the error, so that from that point forwards the price is correct.

5.3. Professional Guidance

References to unit pricing in the professional guidance issued by the Society of Actuaries in Ireland are found in "ACTUARIAL STANDARD OF PRACTICE LA-4 ADDITIONAL GUIDANCE FOR APPOINTED ACTUARIES ON POLICYHOLDERS' REASONABLE EXPECTATIONS"

Section 1.2:

In making a valuation of the Company's life assurance liabilities, the Appointed Actuary must take into account his or her interpretation of the Company's policyholders' reasonable expectations. Therefore, the Appointed Actuary has a continuing responsibility to advise the Board of his or her interpretation of the Company's policyholders' reasonable expectations.

Section 3.3:

For unit-linked business, the Appointed Actuary must, where relevant in interpreting the impact of the exercise of discretion by the Board on policyholders' reasonable expectations, have regard to the following areas:

- (a) determination of fund objectives and investment guidelines;
- (b) **unit pricing**; and
- (c) deductions and adjustments to unit prices for actual and contingent tax and other liabilities.

Section 5.3:

In reviewing policyholder communications, the Appointed Actuary should normally consider the impact on his or her interpretation of policyholders' reasonable expectations of communications provided to policyholders on each of the following:

- (a) the purpose of the product and the main benefits;
- (b) each of the funds to which the policy may be linked;
- (c) the nature of any guarantees provided and the identity of the guarantor;
- (d) the principal risks associated with the product that are borne by the policyholder;
- (e) the charges that apply and the circumstances in which charges may be reviewed;
- (f) the extent to which any discretion in **unit pricing** may be applied for the benefit of the Company; and
- (g) the underlying charges taking account of any charges levied on the underlying assets of the fund.

The role of the Appointed Actuary as regards unit pricing is advisory rather than statutory.

Section 1

1.1 The Board is responsible for the proper running of the Company, including all matters pertaining to the fair treatment of the Company's policyholders. The Board is, therefore, responsible for meeting policyholders' reasonable expectations.

1.2 In making a valuation of the Company's life assurance liabilities, the Appointed Actuary must take into account his or her interpretation of the Company's policyholders' reasonable expectations. Therefore, the Appointed Actuary has a continuing responsibility to advise the Board of his or her interpretation of the Company's policyholders' reasonable expectations.

1.3 This ASP sets out the Appointed Actuary's responsibilities in relation to interpreting policyholders' reasonable expectations for the purpose of making a valuation of the Company's life assurance liabilities. It provides guidance as to the advice to be provided by the Appointed Actuary to the Board in relation to his or her interpretation of policyholders' reasonable expectations, in particular relating to:

- (a) the impact of policyholder communications and policy projections on policyholders' reasonable expectations; and
- (b) the basis on which the Company exercises any discretions that it has in relation to policy conditions.

5.4. Irish Funds Industry Association Guidance

The Irish Funds Industry Association issued in February 2009 a Guidance Paper 6 "Incorrect Pricing of Funds – Correction and Compensation".

The objective of the paper was to set out guidance in relation to the correction and compensation of pricing errors in Irish domiciled funds. In particular the paper provides guidance on the recording, reporting and corrective action to be taken by all parties to a fund in relation to price errors.

Key paragraphs include:

"Compensation refers to the payment required to correct a fund gain or loss. Unless the Trustee recommends otherwise, compensation is paid by the responsible party when the per share price error equals or exceeds the recommended materiality level. The materiality level of 0.50% is recommended. However it is recognised that this materiality level may be set at a higher level than 0.50% but not greater than 1.0% due to factors such as complexity of investment strategies, leverage, lack of readily available market data, lack of investment settlement and custodial sophistication in target markets, etc. If a materiality level in excess of 0.50% is proposed, the Manager (Unit Trust/Common Contractual Fund) or the Directors (VCC) should define the materiality level with supporting justification and seek the Trustee's concurrence."

"A compensatable error is defined as one resulting from a mistake or negligence on behalf of the Manager, Directors, the Registrar, the Administrator or their respective delegates involved in the NAV calculation. Examples of mistakes would include incorrect input of data, improper checking, incorrect interpretation of data and the adoption of an interpretation that would not be considered reasonable by another professional.

Not all NAV differences require compensation. Where a NAV is dependent upon an estimate or judgment based on available information and the Manager / Administrator has an adequate

reporting and review system such that another professional could reasonably have been expected to reach the same conclusion, then any difference arising following the later receipt of new information would not be considered an error but would be part of the risk accepted by an investor when choosing to invest in the fund. It is recognised that the quality of information necessary to formulate pricing in certain funds such as emerging markets or derivatives funds may not be as timely, reliable or predictable as in the case of a developed market fund and thus is more prone to initial estimates changing based on information received following a valuation point.

When, following investigation, an error is considered to be of a compensatable nature and the responsible party has been identified, the Trustee should use his reasonable endeavors to ensure that any loss is made good by the responsible party. It is recognised that the responsible party may not be under the control of the Manager /Directors / Administrator or Trustee and there may be no contractual recourse to such a party. Consideration would have to be given in such an instance as to whether the Manager / Administrator has otherwise been negligent or in breach of its contractual obligations. It should therefore be recognised that the consequences of any error may ultimately fall to be decided by the Courts.”

5.5. Financial Regulator

Under the UCITS Notices, there are some useful regulatory guidance notes e.g. Guidance Note 1/00: Valuation of Assets of Collective Investment Schemes (August 2008)

3. Responsibility

a) Management company, directors, general partner:

Ultimate responsibility for valuations rests with the management company/ directors/general partner.

- The management company/directors/general partner should ensure that securities prices and currency rates are up to date and are provided from a reputable source. The reliability of the source of prices and rates should be kept under constant review.
- Systems and procedures should be in place to:
 - verify uncertain prices and rates;
 - ensure that investment restrictions are not breached;
 - ensure that dividends, expenses and taxes are properly accounted for;
 - provide movement thresholds at which price movements are reviewed;
 - query prices which appear stale, i.e. little or no movement over time;
 - provide for the valuation policy in relation to unlisted or illiquid securities;
 - provide for the valuation policy in relation to OTC derivatives.
- Full and detailed records, particularly in the case of unlisted or illiquid securities and OTC derivatives, should be maintained where they can be reviewed. The management company, directors or general partner should pay particular attention to and closely monitor valuations provided by parties in respect of illiquid or unlisted securities and OTC derivatives to ensure that they remain competent for this purpose.
- Reconciliation of cash, debtors and creditors should take place at a frequency which reflects the frequency of the valuation.

However UCITS Notices have no direct relevance to the regulatory framework for life companies in Ireland operating internal unit funds.

5.6. Industry Approach

It is apparent from the above that there is little or no Irish regulatory guidance available to life companies in Ireland in respect of unit pricing issues.

In contrast to the UK (where the ABI Guide effectively requires that life companies follow the provisions relating to Collective Investment Schemes set out in the FSA Handbook) Irish companies do not have to follow any formal prescribed guidance in respect of unit pricing procedures and practices.

In practice, Irish companies in determining appropriate procedures for unit pricing have regard to:

- Relevant papers presented to the Society of Actuaries in Ireland
- Relevant papers presented to the Institute/Faculty of Actuaries
- Papers issued by the Irish Funds Industry Association
- Material issued by the Financial Regulator such as UCITS Notices
- UK Regulatory Guidance Material
- Other material

Life companies in practice prepare internal procedures manuals for unit pricing having regard to some or all of the above.

ABI Guide

6.1. ABI Guide

The Association of British Insurers issued a paper "A Guide of Good Practice for Unit Linked Funds" in June 2006.

[ABI Press Release on launch of Unit Linked Guide](#)

As part of its commitment to principles-based regulation, the ABI has developed a [Guide of Good Practice for unit linked funds](#)

The Guide sets out recommended approaches and good practice in areas including :

- The fund governance structure
- Disclosure and accountability
- The use of discretion in the fund
- Pricing and valuation models
- Error correction

The Guide has been produced as an alternative to a more prescriptive rules-based solution developed by the FSA. This industry-led initiative should enable the required regulatory outcomes to be achieved without the costs and burdens associated with the consultation and implementation of a new rule book.

The FSA have recognised the Guide as setting out appropriate benchmark standards in the areas described and if the industry makes good on its promise to adopt these standards, this would forestall the need for further regulatory action.

As a self-regulatory initiative, this document provides firms with significantly more flexibility than would be likely to exist under an FSA rulebook. The standards set out represent a benchmark, but firms will have the opportunity to implement alternative measures which achieve the same outcome, or to explain why in their circumstances it would be disproportionate to apply the standards set out in the Guide.

This provides very valuable flexibility whilst also setting clear expectations both for firms and for individual supervisors of the appropriate standards to be applied by firms and the expected outcomes for consumers

The Guide was published on 01 June 2006 and firms had until 31 December 2006 to complete their initial gap analysis.

6.2. Introduction to ABI Guide

The document is intended to provide a 'Guide of Good Practice' for insurance companies operating unit linked funds. It has been prepared recognising that there is not currently a detailed set of rule requirements placed on Unit Linked fund managers. Instead, the FSA set out a framework of principles for business which senior management must apply and interpret, coupled with some specific requirements in particular areas, such as permitted links for investments.

The guiding principle throughout this document is that firms must act in accordance with the concept of Treating Customers Fairly (TCF) as set out by the FSA in a number of publications and in their Principles for Business, which forms part of the FSA Handbook.

6.3. Status of Guide

- The Guide was endorsed as a statement of Good Practice by the ABI Board on (17 May 2006). The ABI consulted with the FSA in developing the standards in the document; however the Guide does not constitute guidance from the FSA. In the event of conflict between the Guide and the FSA Handbook, the FSA's Handbook text prevails. Ultimately, interpretation of the law is a matter for the courts.
- However, the Guide does establish standards that the ABI believes all companies selling unit linked policies should meet within a reasonable period, taking into account the results of their gap analysis and their financial and other circumstances. The FSA supports this initiative, which will inform its approach to the supervision of unit linked life offices.
- It is acknowledged that in some cases firms may adopt a policy or approach at variance with that set down in the Guide. Where this occurs, a firm should be able to explain why they are adopting a different approach and to demonstrate how this approach is at least as effective in securing TCF. Alternatively, if they cannot meet the standard set out in the Guide, (or an equivalent) they should be able to explain why such a standard would not be appropriate to their circumstances – for instance on grounds of materiality or disproportionate cost.
- The ABI have prepared the Guide of Good Practice to assist firms in meeting the FSA's regulatory requirements as set out in their high-level 'Principles for Business'. It is intended to assist both firms and supervisors in interpreting these principles by providing a more detailed framework of good practice standards.
- The FSA recognise the potential of the Guide to assist firms in meeting their regulatory obligations and have taken account of its anticipated implementation when considering their priorities for regulatory reform going forward. They will also take into account firms' compliance with the standards in this Guide in their supervision of unit linked life offices.

6.4. Fund Governance

The ABI guide envisages that the typical fund governance structure would include "A Pricing and Actuarial Committee/Function".

A Pricing and Actuarial Committee / Function

2.1.5 *A committee (or an individual) may be appointed by the Board with delegated responsibility to oversee the fund's pricing arrangements, ensuring targets for accuracy are met, and fairness to customer in the application of pricing policies.*

6.5. Use of Discretion in Managing the Fund

The ABI guide addresses the use of discretion.

3.1.1 Where discretion is exercised in the management of the fund, it is very important to ensure that the firm treats its customers fairly.

3.1.2 Where possible, and as set out in this guide, funds should be operated according to published criteria and standards. Specifically, the scope of the firm's discretion in managing the fund and the limits to that discretion should be documented and disclosed to policyholders and other relevant parties⁹.

3.1.3 This codification provides a clear point of reference against which to review any decisions taken, helping to provide clarity and certainty for all parties.

3.1.4 The scope of discretion should be confirmed annually with a more significant review every three to five years, or upon a significant change to the fund or the investor base.

3.1.5 Robust and effective reporting structures should be in place to allow the Board¹⁰ to monitor the exercise of this discretion on an on-going basis, to ensure that policyholder interests are safeguarded.

3.1.6 Subject to the terms of the original policy conditions, areas where discretion may be applied include:

- Launching funds and seeding with shareholder capital
- Allowing for dealing costs
- Unit Price rounding¹¹
- Application of annual management charges and any ability to alter the definition or level of the charge.
- Tax (e.g. how actual charges or credits for tax are calculated, when they are taken from fund or credited to fund, how deferred tax provisions are calculated)
- Introducing charges for new or unforeseen types of expense which may not be described or covered under existing policy terms
- Criteria for moving funds between bid and offer bases¹²
- Merging funds
- Internal deals between two unit linked funds
- Ability to defer switches / surrenders (e.g. in adverse market conditions)
- Ability to defer transactions by customers seeking to exploit market timing opportunities
- Ability to close a fund to new business or switches in
- Basis for valuing assets – especially where market prices do not exist
- Determining, if applicable, distribution rates for income
- Choice of pricing point

- Frequency and time of pricing
- Addressing breaches of policy conditions or other customer commitments and dispute resolution

⁹

For general policyholder communications a significantly abridged and simplified description of the scope and effect of the use of discretion would normally be provided. A full, technical account of these powers should then be made available to the regulator and others where appropriate.

¹⁰

Either directly or through a delegated body

¹¹

See later section on rounding

¹²

Which has potential to dilute or concentrate the fund

6.6. Pricing Issues –Overview

The ABI guide has a clear overview of pricing issues.

4.1.1 Unit prices should be calculated in a fair and transparent manner, which means:

- 1) Cross-subsidy among policyholders or individual funds should be avoided as far as reasonably possible.
- 2) The pricing mechanism should not be used as a deliberate means of extracting value from the fund or from policyholders¹⁴.

4.1.2 In particular, unit prices will be calculated so as to treat policyholders fairly, in accordance with policy provisions, legislation, insurance regulations, and FSA rules and guidance¹⁵ where appropriate.

4.1.3 Expenses, income and taxation should be recognised appropriately in the price, being accrued in a timely and accurate fashion so that the unit price properly reflects the value of the underlying assets.

¹⁴

This is not intended to cover incidental or unintentional flows which may arise on a limited scale, nor prevent the proper application of disclosed management charges and fees

¹⁵

The CIS Sourcebook provides useful context in this area – see in particular CIS Ch.7 Annex 1G

6.7. Error Correction and Compensation

Section 4.6 deals with error correction.

4.6.1 Pricing errors arise, typically, from a mistake in administration or processing. However, an adjustment to a unit price does not necessarily mean there has been an error, but instead may reflect a change from an estimated asset value included in a unit price, which is later adjusted when the actual value becomes known. Neither the price quoted

before the change, nor the price derived after the change is in error, provided that these prices were arrived at using soundly-based policies, consistently applied⁴⁰.

4.6.2 Where such a change is to be made to a unit price, the change should be made as quickly as possible and should not be phased over time.

4.6.3 However, where errors do occur, these should be quickly identified and any systemic issues rectified. Where a complaint is made by a policyholder, it should be investigated fairly and resolved without undue delay. Compensation should be paid where appropriate⁴¹.

⁴⁰

However, firms will need to consider carefully how they respond to *incorrect* price or valuation information provided by third parties. In particular, where investors have lost out it may be appropriate to provide compensation (regardless of whether the firm intends to take action against the third party).

⁴¹

Further rule requirements and guidance on complaints handling may be found in the FSA handbook, in chapters 1 and 2 of *DISP* – the Dispute Resolution Complaints Sourcebook.

4.6.4 Set out below is a suggested criteria for investigating and resolving pricing errors :

Price error	Action
Below 0.1%:	Errors are recorded but not normally investigated ⁴² .
Between 0.1% and 0.5%.	Errors are recorded and investigated for possible wider implications. Compensation may be considered but not normally required ⁴³ .
0.5% or above.	Errors are recorded, corrected and investigated for possible wider implications. Compensation would normally be paid.

⁴²

However, consideration should be given to the possibility that the error is evidence of wider failings which would merit investigation.

⁴³

Except where the firm identifies a widespread, systemic error likely to have resulted in losses above £50 for individual retail investors.

⁴⁴

Whilst the day to day monitoring may be delegated to a management committee or other function holder, the Board retains ultimate responsibility.

⁴⁵

See SUP 15.3.1R

- 4.6.5 The Board must, at all times, be satisfied that appropriate and reliable systems and controls are in place. Any review of the wider implications of a pricing error must consider any possible systems and controls failings.
- 4.6.6 The Board are responsible for providing oversight⁴⁴ to this process to ensure that any significant or recurring failings are swiftly and effectively remedied.

Reporting to the FSA

- 4.6.7 Pricing errors may be significant in themselves but may also be symptomatic of other process or control weaknesses. Accordingly, where significant or persistent failings have occurred it is likely to be appropriate to share this information with the FSA. The FSA Handbook sets out a number of requirements in respect of those matters having "a serious regulatory impact"⁴⁵, although firms may wish to go beyond this basic requirement to disclose all non-trivial pricing errors.

Speed of correction

- 4.6.8 Where an error is identified in the quoted fund price, the price should be corrected and implemented as soon as possible. There should be no phasing or 'smoothing' over a number of days (or pricing points) between the incorrect price and the correct price.

6.8. Rounding

The key provisions of the ABI guide are:

Rounding should be undertaken on a neutral basis³¹.

³¹ i.e. mathematical rounding to the nearest unit of price, rather than systematic rounding up or down of all 'odd amounts'

6.9. Management Charges

The key provisions of the ABI guide are:

4.5.2 Management Charges should be clearly defined and disclosed to policyholders³⁴.

4.5.3 Firms should be aware of the possible impact of double-charging. Where a fund invests in another in-house fund the firm should reduce or refund the additional charges either by rebates or by investing in a nil charge share class³⁵. Where the firm chooses to pass on additional fees to policyholders for externally managed funds, these should be clearly signalled in marketing literature.

4.5.4 All charges made to the fund, including the annual management charge and any other additional fees or investment management costs, will be subject to disclosure and illustration through the required approaches

³⁴ This should include disclosure of how the asset value is calculated for charging purposes (e.g. whether based on net or gross assets under management).

³⁵ For existing funds that incorporate double-charging on in-house investments, firms should review previous disclosures and consider whether the existing arrangements meet the requirements of TCF.

6.10. Tax

The basis of taxation chosen should aim to achieve broad equity between generations of policyholders and fairness between the company and the fund, supported by appropriate reconciliation to help ensure that a fair outcome has been achieved.

UK FSA

7.1. Regulatory Background

The Financial Services Authority (FSA) is responsible for the regulation and supervision of life companies in the UK.

The FSA's stated aim is to promote efficient, orderly and fair financial markets and help retail financial service consumers get a fair deal. The FSA regulates most financial services markets, exchanges and firms. It sets the standards that they must meet and can take action against firms if they fail to meet the required standards.

7.2. FS Handbook

The FSA Handbook sets out the FSA's legislative and other provisions made under powers given to it by the Financial Services and Markets Act 2000.

Section 153 of the Act requires the FSA to exercise its rule-making powers in writing, in a document the Act calls a 'rule-making instrument'. The Act also requires the FSA to publish all its rule-making instruments. Most other legislative provisions made by the FSA (such as general guidance and codes) are also made by instrument.

The FSA publishes its instruments on its website: <http://fsahandbook.info/FSA/index.jsp>. This fulfils the FSA's obligations to publish its rules. The definitive version of the FSA's rules at any particular time is the version contained in the legal instruments.

The consolidated Handbook is available electronically, in both HTML and PDF formats, on the FSA website (www.fsa.gov.uk) at <http://fsahandbook.info/FSA/index.jsp> or on CD-ROM.

7.3. Collective Investment Funds

Within the FSA Handbook, there are requirements for collective investment funds specified within the Specialist Sourcebook COLL Collective Investment Schemes (reference code COLL which replaced the old CIS on 11/2/2007). The Sourcebook provides a regime of product regulation for authorised funds [investment companies with variable capital (ICVCs) and authorised unit trusts (AUTs)] which sets appropriate standards of protection for investors by specifying a number of features of those products and how they are to be operated.

These requirements do not directly apply to life companies. However, the ABI guide refers to “unit prices will be calculated so as to treat policyholders fairly, in accordance with policy provisions, legislation, insurance regulations, and FSA rules and guidance¹⁵ where appropriate” with a footnote reference to the CIS Sourcebook and in particular CIS Ch.7 Annex 1 G (but CIS was subsequently replaced by COLL). Thus the ABI guide effectively requires that appropriate sections of COLL be followed.

Collective Investment Schemes (COLL)

requirements for collective investment schemes (replaced CIS)

Reference code	Title
COLL 1	Introduction
COLL 2	Authorised fund applications
COLL 3	Constitution
COLL 4	Investor Relations
COLL 5	Investment and borrowing powers
COLL 6	Operating duties and responsibilities
COLL 7	Suspension of dealings and termination of authorised funds
COLL 8	Qualified investor schemes
COLL 9	Recognised schemes
COLL 10	Fees
COLL transchedule	Transitional Provisions and Schedules

Section 6 is particularly relevant.

Operating duties and responsibilities (COLL 6)

Reference Code	Title
COLL 6.1	Introduction and Application
COLL 6.2	Dealing
COLL 6.3	Valuation and pricing
COLL 6.4	Title and registers
COLL 6.5	Appointment and replacement of the authorised fund manager and the depository

Reference Code	Title
<u>COLL 6.6</u>	Powers and duties of the scheme, the authorised fund manager, and the depositary
<u>COLL 6.7</u>	Payments
<u>COLL 6.8</u>	Income: accounting, allocation and distribution
<u>COLL 6.9</u>	Independence, names and UCITS business restrictions

Appendix 1 shows some key sections within COLL 6.3.

Canada

8.1. Regulatory Background

The Federal Regulatory body for the life assurance industry is the Office of the Superintendent of Financial Institutions (OSFI).

8.2. Life Assurance Regulations – Unit Pricing References

OSFI hasn't issued specific guidelines to unit pricing. They regulate the product structure and disclosure etc but do not get involved in unit pricing issues.

8.3. Professional Guidance/Obligations on Appointed Actuaries

The Appointed Actuary's main involvement is in reserving for these types of products but he/she has little or no involvement in unit pricing.

8.4. Other Guidance

In Canada the most similar type of product to a unit linked fund product is an Individual Variable Insurance Contract (IVIC). IVIC may also be referred to segregated funds. The main difference between IVIC and a unit linked fund is that there is usually some level of guarantee with the IVIC.

The Canada Life and Health Insurance Association issued a guideline "G2 – Individual Variable Insurance Contracts Relating to Segregated Funds" which was adopted in March 1997 and amendments which became effective 01/02/2001 and 30/06/2006.

The key provisions of this guideline are

1. Documents to be filed with the reviewer and insurance regulators
2. General Disclosure
3. Delivery of documentation to prospective contract holder
4. Advertising
5. Management expense ratio
6. Investments
7. Partitioning of assets
8. Fundamental changes and merger of segregated funds
9. Audit and accounting requirements

The information for the contract holder is specified at length in this guideline and has a small section on the unit value.

The section in the information folder, which is part of the documentation referred to in three above that goes to the contract holder must specify the following

ITEM 2 Value of Units source G2 guideline CLHIA

(1) Describe briefly the Method followed determining the value of units to be credited to the individual variable insurance contract, surrendered under the contract and to measure the benefits under the contract.

Instruction

State the frequency with which units are valued; the time when such value becomes effective and the length of time it remains in effect.

(2) Describe the basis for establishing the value of the segregated fund.

(3) Describe the charges or method of determining the charges, against the segregated fund for taxes, management, or any other expenses or charges on the basis actually charges and on a manual basis.

Instruction

Indicate briefly any charge imposed for:

- (a) the crediting of units to the individual variable insurance contract;
- (b) the transfer of units in one segregated fund for units in another segregated fund;
- (c) the reinvestment of dividends and similar distributions
- (d) services charges against the segregated fund including charges relating to such matters as cost establishment of the individual variable insurance contract.
- (e) The cost of the continuing administration and maintenance of such contract: and
- (f) When giving particulars of the charges indicate when the charges will be deducted

(4) Describe the application of earnings of the segregated funds

(5) Explain how the contract holder is notified of the number of units credited to or variable benefits available under the individual variable insurance contract and state how often the contract holder will be notified.

End of item 2

8.5. Industry Guidelines

There seems to be no document similar to the ABI guidelines. The feedback we got was that typically these contracts guarantee the return of some identifiable index less a charge i.e. there is not much/any room for subjectivity.

Australia

9.1. Regulatory Background

The Australian Prudential Regulation Authority (APRA)¹ is the prudential regulator of the financial services industry. The Australian Prudential Regulation Authority (APRA) and the Australian Securities and Investments Commission (ASIC) released on 20 August 2008 a newly updated *Unit pricing - guide to good practice* (© Australian Prudential Regulation Authority and Australian Securities & Investments Commission. Reproduced with permission) for the life insurance, superannuation and funds management industries.

Entities regulated under the *Corporations Act 2001*

Australian financial services licensees

Unit pricing entities holding AFS licences include life companies, some superannuation trustees, and fund managers including responsible entities of registered managed investment schemes. Obligations for provision of financial services under an AFS licence include:

- Doing all things necessary to ensure the services are provided efficiently, honestly and fairly: see s912A(1)(a)
- Having adequate arrangements to manage conflicts of interest: see s912A(1)(aa)
- Having adequate financial, technological and human resources, unless the licensee is a body regulated by APRA: see s912A(1)(d)
- Maintaining the competence to provide those services: see s912A(1)(e)
- Ensuring that representatives are adequately trained and competent to provide those services: see s912A(1)(f)
- Having complying dispute resolution systems where services are provided to retail clients: see s912A(1)(g)
- Having adequate risk management systems, unless the licensee is a body regulated by APRA: see s912A(1)(h).

Directors and other officers

Directors and other officers of a corporation have obligations including the requirements to exercise their powers and discharge their duties:

- With the degree of care and diligence that a reasonable person would exercise in those circumstances: see s180

¹ *The Australian Prudential Regulation Authority (APRA) is the prudential regulator of the financial services industry. It oversees banks, credit unions, building societies, general insurance and reinsurance companies, life insurance, friendly societies, and most members of the superannuation industry. APRA is funded largely by the industries that it supervises. It was established on 1 July 1998. APRA currently supervises institutions holding approximately \$3 trillion in assets for 21 million Australian depositors, policyholders and superannuation fund members.*

- In good faith in the best interests of the corporation: see s181.

Entities regulated under the *Life Insurance Act 1995*

As well as being subject to the requirements of the *Corporations Act 2001*, life insurance companies and friendly societies are also regulated under the *Life Insurance Act 1995*. The *Life Insurance Act 1995* imposes a number of obligations that are generally relevant, although not specific, to unit priced products.

These include the obligation for a director of a life company or friendly society to take reasonable care and use due diligence to see that, in the investment, administration and management of the assets of a statutory fund, the life company gives priority to the interests of the owners and prospective owners of policies referable to the fund: see s48(2).

In addition, s116 of the *Life Insurance Act 1995* provides that the appointed actuary must include advice on unit value methods as part of the advice in relation to issuing new types of policies that include units.

9.2. Background to Guide

Both APRA and ASIC have regulatory jurisdiction for aspects of the practice of life companies, superannuation providers and fund managers. After noting concerns about unit pricing practice in these entities in recent years, they undertook a joint review of unit pricing practice from July to December 2004.

The review built on the prior work of both regulators, examining instances at more than 40 entities where unit pricing issues have been addressed since 2000. They also visited product issuers and service providers and consulted with industry bodies to obtain current views on unit pricing and outsourcing practice.

The review included a survey of aspects of unit pricing, outsourcing and tax practice that was sent to 95 entities. The response rate overall was high at 85%. They received replies from 29 operators of managed investment schemes (93% response rate), 16 life companies (100%) and 36 superannuation funds (80%).

In December 2004 they published a joint consultation paper on good practice in unit pricing, based on the findings of our review. They received 16 detailed submissions in response and have considered those comments in the development of the guide.

The survey process, the development of the consultation paper and the further refinement of parts of the guide were subject to independent review by an external consultant.

The guide is, at its core, a principles-based document. APRA and ASIC will continue to review aspects of unit pricing practice and generally expect that product providers will follow the 'good practices' described in the guide. That said, APRA and ASIC understand

that alternative practices are sometimes appropriate but expect product providers to have a reasonable and well-documented justification for adopting them.

9.3. Status of Guide

It is a guide to 'good practice' – neither a guide to 'best practice' nor a mandatory set of instructions.

Some of the material in the guide is a reminder of current legal obligations, while some is a reminder of policy and other guidance they have published. Other material describes good practice as observed among industry participants. Much of the material outlines a common sense approach, building on the obligation to treat unit holders equitably.

However, the range of matters that product providers need to consider in managing unit pricing is not necessarily limited to, or fully covered by, this guide.

APRA will continue to review aspects of unit pricing practice as part of its ongoing regulatory monitoring and will expect to find:

- Sound understanding of good practice in unit pricing demonstrated at all levels of regulated organisations, and
- A strong commitment to the implementation of effective unit pricing practice.

APRA also expects that product providers' unit pricing practices will measure up with the practices described in this guide. There may be unusual circumstances in which alternative practices are appropriate. In such cases, the expectation is that product providers will have a reasonable and documented justification for adopting alternative practices.

9.4. Scope of Guide

APRA and ASIC have developed the guide to help product providers understand and comply with their unit pricing obligations. The guide may also help entities considering whether to unitise their products. The guide does not specifically address crediting rate practices, which are another way of attributing investment returns from a pool of assets to members of the pool. However, some of the issues raised and practices outlined in the guide are also relevant to crediting rate practice.

9.5. Technical Content

Chapter 1 outlines strategic unit pricing issues to be considered by the board and senior management. Chapter 2 identifies good practice principles that should underpin the unit pricing practice of all product providers.

The body of the guide (Chapters 4 to 6) describes the application of the good practice principles in relation to a range of important management, technical and consumer matters. Each section of these chapters outlines a particular unit pricing issue and concludes with guidance on good practice.

9.6. Strengths of Guide

Strengths

- Comprehensive (104 page document)
- A guide to 'good practice' – neither a guide to 'best practice' nor a mandatory set of instructions.
- Principles based
- Ethically based - in all cases you need to act honestly, diligently and impartially and in the best interests of all unit holders.
- A common sense approach, building on the obligation to treat unit holders equitably.
- Separate section for various stakeholders
- Key section at start on strategic unit pricing issues to be considered by the board and senior management.
- Various chapters outlining particular unit pricing issues and concluding with guidance on good practice.

Weaknesses

- Restrictive Scope -dealing primarily with practical process of generation of unit prices
- Limited in some respects
 - No reference to conflict of interest other than legal obligations
 - No examples of conflict of interest situations
 - No references to seeding funds
 - No references to transactions between shareholders and policyholders
 - No references to box management

9.7. Guide Index

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9.8. Strategic unit pricing issues for the board and senior management

The guide sets out a number of strategic unit pricing issues for the board and senior management to focus on shown below in bullet point format.

- Errors in unit pricing can be costly
 - When large errors arise they tend to be very large indeed.
- Give unit pricing a high profile and resources
 - To avoid costly errors ensure that unit pricing in your organization has a high profile and adequate resources.
- Comply with your legal obligations
 - In particular, in all cases you need to act honestly, diligently and impartially and in the best interests of all unit holders.
- Build an effective risk management culture
 - You need to build an effective risk management culture in your organisation from the top down.
 - You also need to demonstrate your commitment to risk management.
 - Your risk management systems should include controls, monitoring and reporting, so that unit pricing errors are avoided or quickly identified.
 - You need to support and encourage staff and professional advisers to report issues, incidents and exceptions.
- Establish a policy framework
 - You need to take responsibility for developing and implementing a unit pricing policy framework for your organisation.
 - Implement the policy framework in such a way that your unit pricing policies are discussed, understood and applied consistently throughout your organisation.
- Maintain robust systems and processes
 - You need to have reliable unit pricing systems, procedures and controls in place, as well as business continuity and disaster recovery plans.
 - Your unit pricing systems and procedures need to be well designed and well understood, and should be reviewed periodically.
 - Your systems and procedures should include measures to minimize the likelihood of unit pricing errors.

- Design effective reports for monitoring
 - You need to ensure you receive appropriate and timely information on unit pricing issues.
 - If you are not kept adequately informed then you cannot manage the risks.

- Establish clear delegations and accountabilities
 - You need to ensure responsibility for each function in your organisation is allocated to a designated person.
 - Your end-to-end process map should completely describe all business activities that can impact on unit pricing.

- Manage complexity and diversity
 - If you choose to offer complex products or a diverse range of products, or if you operate with diverse systems, then you must ensure that you appropriately manage all aspects of your operations.
 - Extra layers of complexity require greater commitment to implementing effective systems and procedures and greater attention to risk management.

- Manage change effectively
 - Many unit pricing errors arise as a consequence of change.
 - You need to attend to risk management during periods of change, particularly where there is more than one change or where change arises frequently.
 - You should also implement project management policies, planning and reporting systems to approve, monitor and control change.

- You are responsible for outsourced functions
 - While you can outsource some of your functions, remember that you cannot outsource your responsibility for those functions.
 - You need to build and maintain effective working relationships with service providers, maintain appropriate knowledge and build and maintain appropriate monitoring systems.

- Be prepared to manage errors and compensation
 - Regardless of the quality of your systems and controls, unit pricing errors may occur – you need to be ready to deal with them.
 - You need rectification and compensation procedures in place so that they can be applied promptly.
 - Communicate with the regulators as soon as possible after you detect a unit pricing error.

9.9. Compensation

The guide is quite explicit as regards the principles underlying the possible requirement for compensation.

“In considering whether compensation is required when you make an adjustment to a unit price, it is essential to consider whether the unit price being adjusted was developed in accordance with soundly based and appropriate policies that were applied consistently.

For example, where estimates included in a unit price need adjustment as the actual amounts become known, or where a reasonable policy is nonetheless reviewed from time to time and updated, neither the unit price before the change, nor the unit price after the change, is incorrect for the purpose of deciding whether compensation is required.

Where such a change is to be made to a unit price, the change should be made as soon as possible. Such change should not be implemented gradually over a period of time.

It is important to note that compensation does need to be considered where policy has been or is inappropriate or where the application of policy has been or is deficient.”

9.10. Risks

Responses to the APRA unit pricing survey indicated that risks arise from:

- The timeframes in which unit prices need to be calculated
- Tax issues, including reconciliations of deferred and current tax, and determination of values for current tax, deferred tax liabilities, and deferred tax assets
- Lack of integration of information technology systems, and the need for manual workarounds
- The need to manage the relationship with the service provider where functions are outsourced
- Legacy products and services – for life companies and some managed investment schemes, and
- The need for timely provision of information by external product providers.

9.11. Independent Review & Investigation

The guide highlights independent review.

“Regular independent review of the inputs and outputs of unit pricing, as well as the related systems, procedures, methodologies and controls, can significantly reduce the risk of error. These reviews should both check accuracy and consider whether the related processes continue to be relevant. Reviews can be undertaken by parties who are not directly involved in the unit pricing function – for example, internal audit, the

compliance unit, the risk management unit, external auditors, actuaries or other external advisers. The use of such independent review is generally regarded as good practice. For example, IFSA Standard 5.00 *Operational capabilities* specifies that scheme operators should have appropriate compliance or independent audit functions to ensure that control systems operate effectively.”

9.12. Treatment of Deferred Tax Assets

The guide makes reference to the treatment of deferred tax assets.

“Funds may have actual or net unrealised tax losses that can be carried forward as deferred tax assets or future income tax benefits (FITBs). These FITBs are available to offset future capital gains tax liabilities or future unrealised gains. FITBs may also be written off – for example, if market movements mean they are unlikely to be realised. Issues arise relating to the amount of FITBs that can be recognised, and the circumstances in which FITBs can be recognised. Our unit pricing survey showed a range of practice in recognising FITBs. Our review also found that where a view has been formed that the deferred tax benefits have been overstated, FITBs may not have been reduced to an appropriate level.”

Guide to good practice in determining tax treatments

FITBs should be included in unit prices to the extent that they have value for present or future unit holders, taking into account the circumstances of the fund, the governing documentation, possible events, the likelihood and timing of those events, and your approach to discounting to allow for the time value of money. The value of FITBs included in unit prices should be systematically reviewed to help achieve equity between investors and to minimise price discontinuities in unit prices.

We would not expect to see a tax policy that always, or never, recognises FITBs. It is reasonable to consider capping the amount of FITBs included in unit prices.

For these and other reasons, the amount of FITBs included in unit prices may not match the amount of FITBs reported in financial statements. Depending on the size or the reasons for the difference, differences may need to be explained in the financial statements.

When determining the amount of FITBs in unit prices and any cap on FITBs, factors you should consider may include, but are not limited to:

- The level of unrealised gains/losses
- Expectations of market movements and their likely volatility
- The investment timeframe
- Likely investment inflows and outflows for the fund
- The extent to which FITBs in one pool can be applied against gains elsewhere in the same entity or consolidated entity
- The applicable tax rate
- Exposure of the fund to possible significant redemptions, and
- Marked change in the circumstances of your product.

9.13. Compensation for Errors

The guide deals with compensation for errors.

When is Compensation Payable

When determining whether compensation is payable, you need to consider the impact on each individual unit holder of one or more unresolved errors. You need to:

- Compare the value that would have accumulated if the unresolved error(s) had not arisen with the value that accumulated in the presence of the error(s), from the date the error(s) started to the date the effect of the error(s) ceased. You can regard an error as resolved if it was appropriately identified and addressed within the terms of reasonable error management policy and reasonable compensation policy in effect at that time;
- If the difference is equal to or greater than 0.3% (30 basispoints) of the value that would have accumulated without the error, pay compensation; and
- If the difference is less than 0.3%, consider whether compensation should be paid. For example:
 - This may depend on the type of asset. It may be appropriate to compensate smaller errors for some products, for example, cash management trusts;
 - Where an error arises due to miscalculation of fees, it must be compensated in all cases; and
 - There may be other circumstances when it is appropriate to compensate when the difference is less than 0.3%.
- You need to consider the circumstances and your obligations in each case.
- Considerable costs (including bank, correspondence preparation and postage charges) may be incurred in compensating unit holders who have left a fund before an error is identified but who held affected units at the time the error arose.
- We also note that in some cases product providers may themselves be paid compensation. Unit holders entitled to compensation will not always be retail investors. In the case of a fund of funds, the unit holder might be a product provider in a layered sequence of product providers. Compensation might be payable by one product provider to another, who would then independently determine any need to compensate its own unit holders.

Payments to Exited Members

- For exited unit holders a fixed dollar minimum can apply to compensation amounts. The following principles apply:
 - Compensation should be paid where the amount of compensation is \$20 and above. You can compensate below this level if you wish; and
 - If you apply a fixed dollar minimum, then disclosure must be made on your website and in the annual financial report for the relevant fund.

Appendix 1: COLL 6.3

10.1. Valuation and Pricing

COLL 6.3 (within the Specialist Sourcebook: COLL Collective Investment Schemes) deals with valuation and pricing.

Valuation and pricing guidance

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Valuation and pricing

The valuation of scheme property

(1) Where possible, *investments* should be valued using a reputable source. The reliability of the source of prices should be kept under regular review.

(2) For some or all of the *investments* comprising the *scheme property*, different prices may be quoted according to whether they are being bought (*offer prices*) or sold (*bid prices*). The valuation of a *single-priced authorised fund* should reflect the mid-market value of such *investments*. In the case of a *dual-priced authorised fund*, the *issue* basis of the valuation will be carried out by reference to the *offer prices* of *investments* and the *cancellation* basis by reference to the *bid prices* of those same *investments*. The *prospectus* should explain how *investments* will be valued for which a single *price* is quoted for both buying and *selling*.

(2A) *Schemes* investing in *approved money-market instruments* should value such instruments on an amortised cost basis on condition that:

- (a) the *approved money-market instrument* has a residual maturity of less than three months and has no specific sensitivity to market parameters, including credit risk; or
- (b) the *scheme* is a *qualifying money market fund*.

[**Note:** CESR's UCITS eligible assets guidelines with respect to article 4(2) of the UCITS eligible assets Directive]

(3) Any part of the *scheme property* of an *authorised fund* that is not an *investment* should be valued at a fair value, but for immovables this is subject to COLL 5.6.20 R (3) (f) (Standing independent valuer and valuation).

(4) For the purposes of (2) and (3), any fiscal charges, commissions, professional fees or other charges that were paid, or would be payable on acquiring or disposing of the *investment* or other part of the *scheme property* should, in the case of a *single-priced*

authorised fund, be excluded from the value of an *investment* or other part of the *scheme property*. In the case of a *dual-priced authorised fund*, any such payments should be added to the *issue* basis of the valuation, or subtracted from the *cancellation* basis of the valuation, as appropriate. Alternatively, the *prospectus* of a *dual-priced authorised fund* may prescribe any other method of calculating *unit prices* that ensures an equivalent treatment of the effect of these payments.

(5) Where the *authorised fund manager* has reasonable grounds to believe that:
(a) no reliable price exists for a *security* at a *valuation point*; or
(b) the most recent price available does not reflect the *authorised fund manager's* best estimate of the value of a *security* at the *valuation point*
it should value an *investment* at a price which, in its opinion, reflects a fair and reasonable price for that *investment* (the fair value price);

(6) The circumstances which may give rise to a fair value price being used include:
(a) no recent trade in the *security* concerned; or
(b) the occurrence of a significant event since the most recent closure of the market where the price of the *security* is taken.
In (b), a significant event is one that means the most recent price of a *security* or a basket of *securities* is materially different to the price that it is reasonably believed would exist at the *valuation point* had the relevant market been open.

(7) In determining whether to use such a fair value price, the *authorised fund manager* should include in his consideration:
(a) the type of *authorised fund* concerned;
(b) the *securities* involved;
(c) the basis and reliability of the alternative price used; and
(d) the *authorised fund manager's* policy on the valuation of *scheme property* as disclosed in the *prospectus*.

(7A) Where the *authorised fund manager*, the *depository* or the *standing independent valuer* have reasonable grounds to believe that the most recent valuation of an immovable does not reflect the current value of that immovable, the *authorised fund manager* should consult and agree with the *standing independent valuer* a fair and reasonable value for the immovable.

(8) The *authorised fund manager* should document the basis of valuation (including any fair value pricing policy) and, where appropriate, the basis of any methodology and ensure that the procedures are applied consistently and fairly.

(9) Where a *unit price* is determined using properly applied fair value prices in accordance with policies in (8), subsequent information that indicates the *price* should have been different from that calculated will not normally give rise to an instance of incorrect pricing.

The pricing controls of the authorised fund manager

(1) An authorised fund manager needs to be able to demonstrate that it has effective controls over its calculations of unit prices.

(2) The controls referred to in (1) should ensure that:

(a) asset prices are accurate and up to date;

(b) investment transactions are accurately and promptly reflected in valuations;

(c) the components of the valuation (including stock, cash, and units in issue), are regularly reconciled to their source or prime records and any reconciling items resolved promptly and debtors reviewed for recoverability;

(d) the sources of prices not obtained from the main pricing source are recorded and regularly reviewed;

(e) compliance with the investment and borrowing powers is regularly reviewed;

(f) dividends are accounted for as soon as securities are quoted exdividend (unless it is prudent to account for them on receipt):

(g) fixed interest dividends, interest and expenses are accrued at each valuation point ;

(h) tax positions are regularly reviewed and adjusted, if necessary;

(i) reasonable tolerances are set for movements in the key elements of a valuation and movements outside these tolerances are investigated;

(j) the fund manager regularly reviews the portfolio valuation for accuracy ; and

(k) the valuation of OTC derivatives is accurate and up to date and in compliance with the methods agreed with the depositary.

(3) In exercising its pricing controls, the authorised fund manager may exercise reasonable discretion in determining the appropriate frequency of the operation of the controls and may choose a longer interval, if appropriate, given the level of activity on the authorised fund or the materiality of any effect on the price.

(4) Evidence of the exercise of the pricing controls should be retained.

(5) Evidence of persistent or repetitive errors in relation to these matters, and in particular any evidence of a pattern of errors working in an authorised fund manager's favour, will make demonstrating effective controls more difficult.

(6) Where the pricing function is delegated to a third party, COLL 6.6.15 R (1) (Committees and delegation) will apply.

The depositary's review of the authorised fund manager's systems and controls

(1) This section provides details of the types of checks a depositary should carry out to be satisfied that the authorised fund manager adopts systems and controls which are appropriate to ensure that prices of units are calculated in accordance with this section and to ensure that the likelihood of incorrect prices will be minimised. These checks also apply where an authorised fund manager has delegated all or some of its pricing functions to one or more third parties.

(2)A depositary should thoroughly review an authorised fund manager's systems and controls to confirm that they are satisfactory. The depositary's review should include an analysis of the controls in place to determine the extent to which reliance can be placed on them.

(3)A review should be performed when the depositary is appointed and thereafter as it feels appropriate given its knowledge of the robustness and the stability of the systems and controls and their operation.

(4)A review should be carried out more frequently where a depositary knows or suspects that an authorised fund manager's systems and controls are weak or are otherwise unsatisfactory.

(5) Additionally, a depositary should from time to time review other aspects of the valuation of the scheme property of each authorised fund for which it is responsible, verifying, on a sample basis, if necessary, the assets, liabilities, accruals, units in issue, securities prices (and in particular the prices of OTC derivatives, unapproved securities and the basis for the valuation of unquoted securities) and any other relevant matters, for example an accumulation factor or a currency conversion factor.

(6)A depositary should ensure that any issues, which are identified in any such review, are properly followed up and resolved.

The recording and reporting of instances of incorrect pricing

(1)An *authorised fund manager* should record each instance where the *price* of a *unit* is incorrect as soon as the error is discovered, and report the fact to the *depositary* together with details of the action taken, or to be taken, to avoid repetition as soon as practicable.

(2)In accordance with COLL 6.6.11 G (Duty to inform the FSA), the *depositary* should report any breach of the rules in COLL 6.3 immediately to the *FSA*. However, notification should relate to instances which the *depositary* considers material only.

(3)A *depositary* should also report to the *FSA* immediately any instance of incorrect *pricing* where the error is 0.5% or more of the *price* of a *unit*, where a *depositary* believes that reimbursement or payment is inappropriate and should not be paid by an *authorised fund manager*.

(4) In accordance with SUP 16.6.8 R, a *depositary* should also make a return to the *FSA* on a quarterly basis which summarises the number of instances of incorrect *pricing* during a particular period.

The rectification of pricing breaches

(1) COLL 6.6.3 R (1) (Functions of the authorised fund manager) places a duty on the *authorised fund manager* to take action to reimburse affected *unitholders*, former *unitholders*, and the *scheme* itself, for instances of incorrect *pricing*, except if it appears to the *depository* that the breach is of minimal significance.

(2) A *depository* may consider that the instance of incorrect *pricing* is of minimal significance if:

(a) the *authorised fund manager* and *depository* meet the standards of control set out in Section 2 and Section 3 of this Table; and

(b) the error in *pricing* of a *unit* is less than 0.5% of the correct *price*.

(3) In determining (2), if the instance of incorrect *pricing* is due to one or more factors or exists over a period of time, each *price* should be considered separately.

(4) If a *depository* deems it appropriate, it may, in spite of the circumstances outlined in (2), require a payment from the *authorised fund manager* or from the *authorised fund* to the *unitholders*, former *unitholders*, the *authorised fund* or the *authorised fund manager* (where appropriate).

(5) The *depository* should satisfy itself that any payments required following an instance of incorrect *pricing* are accurately and promptly calculated and paid.

(6) If a *depository* considers that reimbursement or payment is inappropriate, it should report the matter to the *FSA*, together with its recommendation and justification. The *depository* should take into account the need to avoid prejudice to the rights of *unitholders*, or the rights of *unitholders* in a *class of units*.

(7) It may not be practicable, or in some cases legally permissible, for the *authorised fund manager* to obtain reimbursement from *unitholders*, where the *unitholders* have benefited from the incorrect *price*.

(8) In all cases where reimbursement or payment is required, amounts due to be reimbursed to *unitholders* for individual sums which are reasonably considered by the *authorised fund manager* and *depository* to be immaterial, need not normally be paid.