

INFORMATION NOTE 006 - RETIREMENT FUND CONSIDERATIONS FOR ACTUARIAL STAFF AND ADMINISTRATORS

Classification

This document is classified as an Information Note.

Abstract

This information note outlines operational risk factors to be considered by actuarial staff and administrators of retirement funds when calculating and implementing unit prices.

Purpose

This document is intended to provide guidance to the parties involved in the setting up, management and use of unit prices; and to assist them in mitigating and managing the risks that they are exposed to. It is not intended to be a complete list of all possible considerations; nor is intended to prescribe requirements or provide formal actuarial guidance.

Legislation or Authority

Actuarial Society of South Africa Systems and Technology Committee.

Application

Individuals providing actuarial input into the calculations and implementation of unitisation rates.

Individuals involved in the administration of the retirement funds where unitisation is used.

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Status

Version 1.0 Effective from March 2021

1 Background

There has been an industry-wide move towards unitisation or unit-linking as a way of increasing efficiency and simplicity when allocating investment returns to members in retirement funds. It is important, especially in a Defined Contribution (DC) environment, that individual member balances are correct.

However, there are instances where member values, as recorded on the administration system, vary greatly from those expected after manually building it up. Therefore, even though unitisation is generally straightforward, its implementation introduces significant operational risk. These operational risks arise in the calculations, uploads to the administration system and the use of unit prices. Short time frames, high volumes of data and the difficulty of error detection and remediation challenges all exacerbate these risks.

There are multiple steps and parties involved in the unitisation process (i.e. calculation, uploading and linking to member records). These parties can have varying levels of knowledge, skills and experience. Based on the aforementioned factors, there is a need for guidance to address the challenges involved from an actuarial systems or model perspective.

2 Potential errors

Errors may arise from model or system issues, most of which are attributable to two points of origin: human error or system errors. Human error arises from inputting incorrect information into the system, off-system calculations and manual interventions. System errors arise primarily from failures to update the system, but also occasionally from inherent system deficiencies.

3 Potential Risk Areas

Four main risk areas were identified in the calculation and use of unit prices:

1. Where unit prices are calculated manually from base information provided by investment managers and uploaded onto one's own proprietary systems/models.
2. Where unit prices are provided directly by the investment managers and manually uploaded onto one's own proprietary systems;
3. Where unit prices are automatically uploaded through a direct link with proprietary investment management systems; and
4. Incorrect system processes.

4 Potential Controls

Control mechanisms for the identified problems/risks are set out in the table below:

Problem	Issues	Remediation
Manual calculations (MS Excel/Spreadsheets)	<ul style="list-style-type: none"> • Wrong dates (e.g. 30 vs 31) • Hardcoded numbers • Incorrect links • Incorrect calculations (e.g. wrong formula) 	<ul style="list-style-type: none"> • Checklists • System training • System checks • Audit trails • Rules for manual calculations • Minimal system intervention • Implementation of principles from the N311.03 Module • Reasonability checks
Manual interventions on the system	<ul style="list-style-type: none"> • Transaction vs effective vs release date • Rands vs Cents • Incorrect/inconsistent date formats (e.g. DMY vs MDY) • Corrections on prior period unit prices 	<ul style="list-style-type: none"> • Limit interventions and record changes where manual intervention is necessary • User permission management • Inbuilt system audit trails • Transparency and audit trail in the correction process
Incorrect unit prices	<ul style="list-style-type: none"> • Vested vs non-vested bonuses • VAT-inclusive vs VAT-exclusive • Investment charges (included/excluded) 	<ul style="list-style-type: none"> • Integrating investment management and administration systems to reduce the need for human intervention

Problem	Issues	Remediation
	<ul style="list-style-type: none"> • Incorrect calculations • Incorrect inputs/uploads • Non-standard investment statements leading to errors in identifying the required information • Provision of incorrect unit prices by investment managers • Significant market movements/transactions • Inclusion of all relevant portfolios in calculations • Language issues (administration vs actuarial vs investment manager terms e.g. withdrawal, disinvestment) • Unaccounted-for change in investment managers, portfolios and cashflows 	<ul style="list-style-type: none"> • Training users to understand investment statements • Statement M to be included in all investment statements • Clear Service Level Agreements (SLAs) with investment managers specifying the corrective action to be taken and liability when there are errors/losses • Checking for resolutions with investment consultants to ensure all investment managers, portfolios and cashflows are accounted for
<p>System linking issues; integrating unit price calculations with an existing system (Investment manager or administrator)</p>	<ul style="list-style-type: none"> • Incorrect calculations • Issues with linking systems • Cyber risk • Lack of transparency • Automatic linking set-up 	<ul style="list-style-type: none"> • Daily/monthly checks and linking to balancing function • Regular software updates • Involvement of the correct personnel • Training users when there are administrator and/or investment management system changes

5 How to apply unit prices correctly

- Understand the purpose of the unit prices e.g. are unit prices used to determine the member values or the asset values?
- Understanding the system capabilities e.g. does the system allow retrospective corrections on member values?
- Being aware of whether bid or offer prices are being referenced.
- Keep records e.g., after adjustments are made to member values.
- Be transparent i.e. any changes on the member records and the assets should be clear, understandable and communicated to the relevant stakeholders.
- Clarity on different runs e.g. where unit prices have to be manually changed for the purposes of performing valuations or where there is a time lapse between the market and the system dates and manual adjustments are required for specific purposes.