



Volume 1 | Paper 1 | July 2020

AIR CONSULTING – OUR THINKING

# Actuarial valuations of Retirement benefit schemes



**AIR CONSULTING**

ACTUARIAL | INVESTMENT | RISK

---

# Actuarial Valuations of Retirement Benefits Schemes

Gratuity schemes and pension schemes provide guaranteed benefits to their members. Actuarial valuations require expertise in economics, statistics, finance and demographics. The results of actuarial valuations are useful to many parties; from those interested in the security of the scheme members' benefits to those with an interest in the financial health of a company. There are different types of actuarial valuations for different purposes, all of which need to be produced by qualified actuaries.

Retirement Benefit Schemes provide benefits to employees in the future in lieu of service now



## What is an Actuarial Valuation?

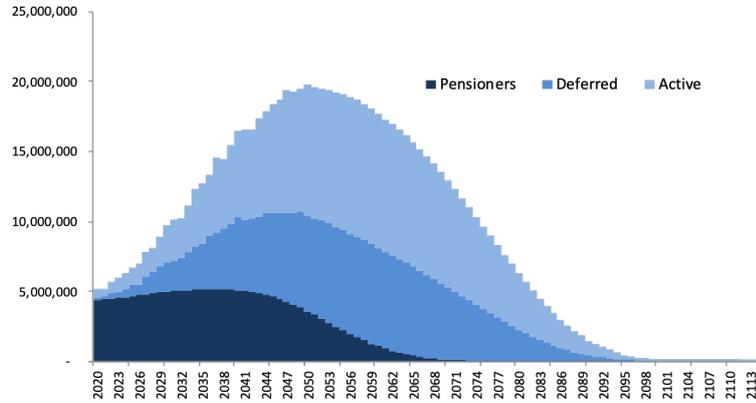
Retirement benefits such as gratuity or pension benefits are promises made to employees to pay them in the future. These promises are relatively complex to value. This is because the value of the ultimate



payments not only depend on future economic and financial variables, but also on demographic factors related to the individuals to whom the promises have been made.

Actuarial valuations involve projecting the future payments to be made in respect of all of the members of a scheme. The chart below shows the future cashflows in respect of benefits accrued to date of a typical pension scheme.

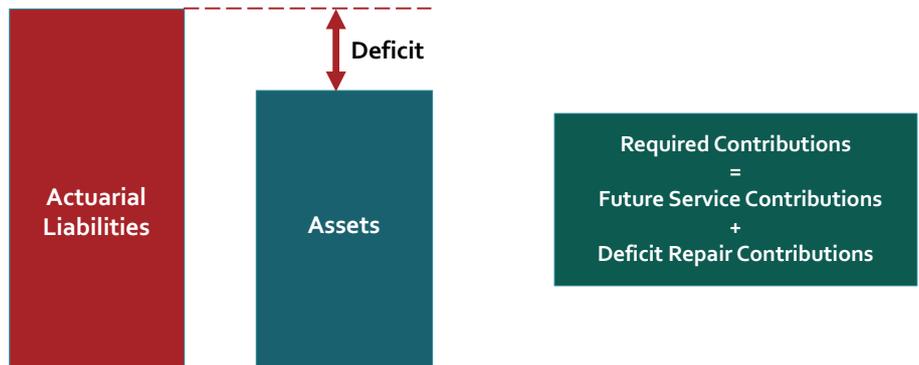
Actuaries project uncertain cashflows that depend on demographic and economic factors



In economic terms the promised benefit payments can be thought of as debt issued by the employer to the gratuity or pension scheme. The employer (and potentially employees) make contributions into the retirement benefit scheme in order to accumulate assets to pay benefits as they fall due. Usually a Trust is set up as a separate entity to the employer in order to safeguard the interest of members of the retirement benefits scheme; to administer the benefits and manage the assets.

Actuarial valuations look to determine the financial position of the retirement benefit scheme by placing a value on the promised benefits accrued to the valuation date (the actuarial liabilities) and comparing this with the value of assets held to support these liabilities.

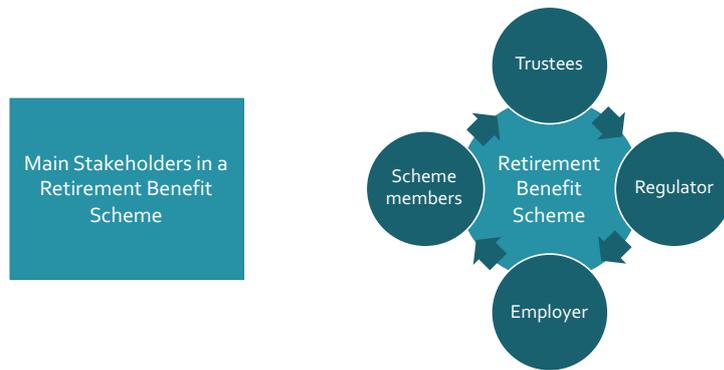
Another very important output of the actuarial valuation is the determination of the future contributions needed. This may have two components; contributions to pay for future accrual of benefits and contributions to repair any deficit the scheme may have.



# What is the purpose of an Actuarial valuation?

Actuarial valuations provide users of the results with information upon which to make important financial decisions. It is therefore useful to understand who those users may be and how they may use the information.

Actuarial valuations are useful to many stakeholders including scheme members, trustees and the sponsoring employer who ultimately pays for the scheme benefits



## Trustees

Trustees are responsible for looking after the interest of the members of the scheme. As such their main priority is to ensure that the benefits are paid to members when they fall due. This means ensuring there are enough assets in the scheme to pay those benefits on time. The type of assets held, and the safe keeping of those assets are also a priority, as is ensuring the sponsoring company continues to contribute at an appropriate level to cover benefit promises.

## Regulator

The regulatory framework will vary by jurisdiction. However, in principle, regulations will primarily look to ensure the solvency of retirement benefits schemes and to ensure they are run in the interests of the members. There are many types of risks inherent in running a scheme; data, administration, investment, legal, operational and fraud risks (to name a few) and a regulatory framework provides focus on managing risks appropriately.

Regulators will require regular actuarial valuations to be conducted, usually tightly prescribing the acceptable technical methodologies. The actuarial valuation is a process and regularly conducting an actuarial valuation is not only a way of monitoring the financial health of a scheme but can demonstrate that all aspects of running the scheme and managing risks are being considered.



## Scheme member

Members will be reliant on a gratuity or pension from the scheme for income in retirement. They will be concerned as to the safety of these future benefits. Actuarial valuations provide information to individuals making that assessment and helps them make wider financial decisions.

Retirement benefits schemes can be an important actor in the capital markets of a country

## Employer

Ultimately the employer funds the benefit promises made. The employer provides a covenant in respect of any deficit existing in the scheme and underwrites the inherent risks. There are therefore economic costs as well as balance sheet implications for the employer (sponsoring company). For some companies (e.g. sponsors that are financial institutions) there may also be implications on regulatory capital requirements.

The aim of the employer will be to provide these benefits at a reasonable cost and with acceptable risk levels, to reduce the chance that the company's core business plans could be in jeopardy. Actuarial valuations provide the sponsoring company with an understanding of the costs and risks. They are also needed to meet accounting disclosure requirements.

## Other stakeholders

Potential debt or equity investors in a company are also an important user of actuarial valuation results as they will need to understand the financial health of a company and understand the risks of investing. They will want to see disclosures relating to the retirement benefit obligations as these can be a significant part of a company's finances and a driver of balance sheet volatility. Indeed, stock market listings will require robust disclosures and any private corporate transactions will also include a discussion of retirement benefit liabilities. Regular actuarial valuations provide credence and will support the raising of finance and other corporate transaction by helping participants properly assess risks and costs.

The government is also a stakeholder as the provision of retirement income through retirement benefits schemes sits alongside the state pension system and can alleviate fiscal burdens.

Retirement benefits schemes are also important to capital markets, as they have the potential to be significant investors in the real economy.



# What types of actuarial valuations are there?

We have seen that there are many stakeholders who require an actuarial assessment of value. Importantly, the value placed on liabilities can differ depending on the purpose of the valuation and for whom the valuation is undertaken. Two common examples are discussed below.

The value of actuarial liabilities impacts the balance sheet of the sponsoring employer and can influence the ability to attract investors

## IAS 19 accounting valuation

Primarily used by the sponsoring companies to meet accounting disclosure requirements. A prescriptive approach to valuations is provided in the form of IAS 19 (or the local equivalent). This approach enables better comparison of company accounts across similar types of companies. Note that the value placed on liabilities and the surplus or deficit disclosed is an accounting construct albeit underpinned by actuarial techniques and calculations. Specifically, it is not necessarily a good measure to be used for economic management of a retirement benefit scheme.

## Funding valuation

Primarily used by those interested in prudent economic management of the scheme (Trustees, Sponsoring Companies and Regulators). The Actuary recommends the appropriate level of prudence to incorporate in the valuation of liabilities in consultation with Trustees and the sponsoring company. The Scheme's specific circumstances are taken into account, including investment risks. This leads to an appropriate level of contributions to be paid into the Scheme.

Other types of actuarial valuations exist. For example; regulatory valuations; valuations assuming wind up of the scheme; valuations performed in order to transfer the liabilities to an insurer. Each of these may place a different value on Scheme liabilities.



# Who performs actuarial valuations?

It is important that the results of an actuarial valuation are credible

## Actuaries

Actuaries are financial experts versed in economics, finance and statistics. Importantly however, they are also experts in estimating demographic factors. For example, actuaries use past data to estimate how long employees may live (mortality/longevity); likelihood of remaining in employment; likelihood of contracting illness. All of these are relevant to estimate the ultimate payments made in respect of a retirement benefit scheme. The interrelationships between demographic and financial factors is also important.

## Can non-actuaries perform actuarial valuations?

The short answer is no. In the case of financial statements, users of these statements need to be sure that the statements are credible. For company decision makers, expert input is needed to avoid costly misallocation of capital. Trustees responsible for ensuring member benefits are ultimately paid, need to negotiate the right level and pace of funding that balances member benefit security and affordability for the sponsoring employer.

Actuarial valuations are a specialized area of finance, and it is important that Actuaries perform these calculations.

**Please reach out to your contact at  
AIR Consulting Limited for unrivalled  
Actuarial Services in Bangladesh.**



**AIR Consulting Limited**  
**Mouchak Tower (14<sup>th</sup> Floor)**  
**Suite # 1501**  
**83/C, Siddeshwari Circular Rd**  
**Malibag, Dhaka - 1217**

**[www.airconsulting-bd.com](http://www.airconsulting-bd.com)**

**[info@airconsulting-bd.com](mailto:info@airconsulting-bd.com)**

**(+880) 191 5473 709 / (+880) 172 0016 111**

### **Risks and other important considerations**

While all reasonable efforts have been made to ensure the accuracy of the information contained in this document there is no warranty, express or implied, as to its accuracy or completeness. Any opinions expressed in this document are subject to change without notice. The document is for general information only and AIR Consulting Ltd. accepts no responsibility for any loss arising from any actions taken or not taken by anyone using this material.

The information contained in this document is not intended to be, nor should be construed as advice nor deemed suitable to meet the needs of any individual or organisation. Nothing contained herein constitutes actuarial, investment, legal, tax or other advice nor is it to be solely relied on in making an actuarial or other decision. The views expressed here are not necessarily those of AIR Consulting Ltd. and AIR Consulting Ltd. may or may not have acted upon them. No party shall have any right of action against AIR Consulting Ltd. in relation to the accuracy or completeness of the Information, or any other written or oral information made available in connection with this document. No responsibility can be accepted by AIR Consulting Ltd. or contributors as a result of information contained in this document. This material is provided for informational purposes only and does not constitute a solicitation in any jurisdiction.

No part of this document may be reproduced or transmitted in any form or by any means, including photocopying and recording, without the written permission of the publishers.