Philippe-Nicolas Marcaillou
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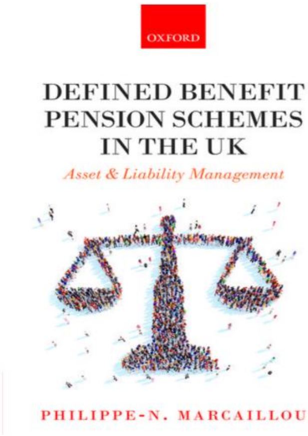


What is the impact of the Covid 19 on the solvency of the Defined Benefits (DB) Pension Fund in the UK?

Q/ As a quick reminder, what is a DB scheme?

A DB pension scheme is a type of pension plan set up by a sponsor (a corporate or a government) that pays a specified monthly benefit on retirement to employees. The amount is pre-defined by a formula usually based on employee's salary, length of service, and age at retirement and is paid for as long as the employee is alive. Under this arrangement, employees get paid a defined amount of pension at retirement.

Q/ Who are the members?

They are divided into three categories:

- Active member is a member of an occupational pension scheme who is presently building up pension benefits in their current scheme.

- **Deferred member** is a member who no longer contributes to or accrues benefits from the plan but has not yet begun to receive retirement benefits from that plan.

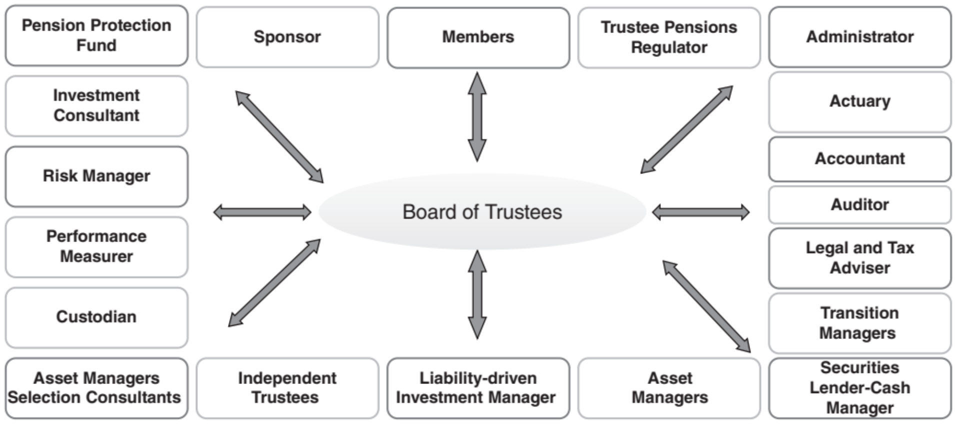
- Pensioner member is a member who collects a pension most commonly because of retirement.

Q/ What is the distribution of members by type in the UK?

Active: 1,2 Million (11%) Pensioner: 4,5 Million (41%) Deferred: 5,2 Million (48%) - Source TPR 2018

Q/ Who are the main parties involved in a Defined Benefit Pension Fund?

There are many as you can see in the figure below!



Q/ Let us examine few of them!

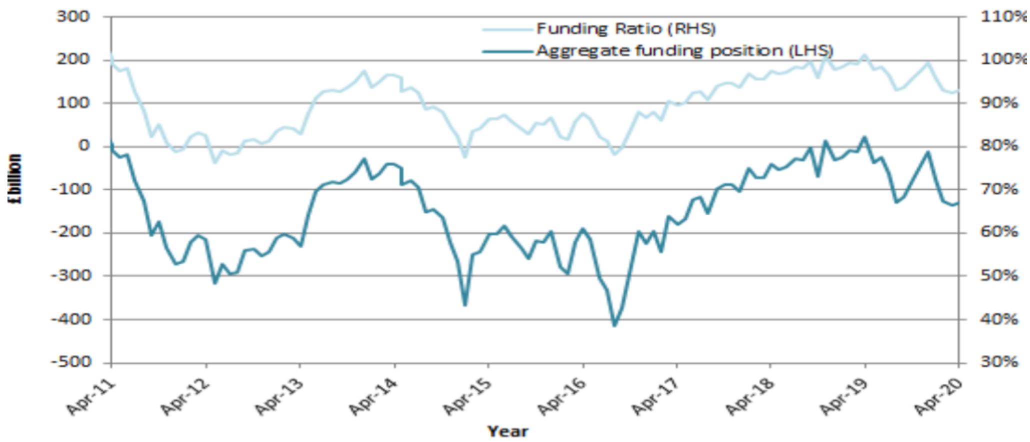
The Trustees can be employer-nominated trustees, member-nominated, or professional independent trustees. They are responsible for ensuring the scheme operates according to all the rules specific to the scheme and to current law. They ensure that the employer's contributions are sufficient to pay the future benefits. By law, trustees are required to appoint advisors such as scheme auditors, actuaries, investment consultants, investment managers, a custodian to look after the scheme's assets, and a lawyer.

The Pension Regulator (TPR) follows the objectives to protect i/ the benefits of members of work-based pension schemes, ii/ promote and to improve understanding of the good administration of work-based pension schemes and reduce the risk of situations which may lead to compensation being payable from the Pension Protection Fund (PPF), iii/ maximize employer compliance with employer duties and the employment safeguards.

The main function of the Pension Protection Fund (PPF) is to provide compensation to members of eligible defined benefit pension schemes when there is a qualifying insolvency event in relation to the employer, and where there are insufficient assets in the pension scheme.

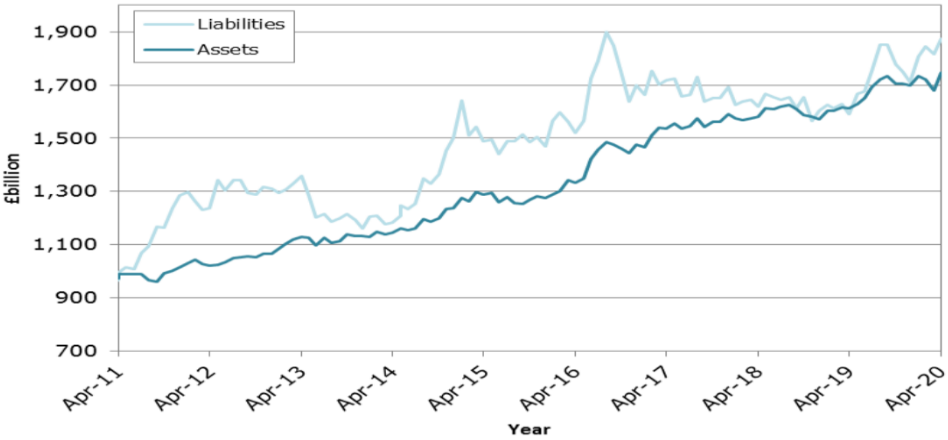
Q/How did the funding ratio of DB schemes from the 1st of January to the 30th of April 2020 behave?

The funding ratio (Assets / Liabilities) decreased from 98 per cent at the end of December 2019 to 93 per cent. The aggregate deficit of the 5422 schemes which represent 99 per cent of the DB universe, increased from £ c.35 bn at the end of December 2019 to £128.5 billion at the end of April 2020.



Q/ What is the amount of Assets and liabilities of the DB scheme universe?

The amount of total scheme assets was £1,745 bn at the end of April 2020 and increased by 8.3 per cent over the year. The Amount of total scheme liabilities was £1,874 bn at the end of April 2020, an increase of 17.9 per cent over the year.



Q/ What are the funding comparisons?

	Apr-19	Dec-19	Apr-20
Aggregate funding position (£ bn)	22.1	-35.4	-128.5
Funding ratio (%)	101.4	98	93.1
Aggregate assets (£ bn)	1,612	1,740	1,745
Aggregate Liabilities (£ bn)	1,590	1,775	1,874

Q/ What are the factors of performance and risk of DB schemes?

On the asset side, the funding ratio is sensitive to the change in prices of all asset classes and mainly to equity markets, nominal and index-linked gilts government and credit Bonds with 15 to 20 years' maturities. Consequently, the way the risk allocations is built, has a big impact.

The liabilities are the cash paid to pensioners; they can be compared to zero coupon cash flows and in our case, calculated with a discounted Section 179 methodology which is broadly what an insurance company would pay to take on payment of Pension Protection Fund (PPF) levels of compensation. If nominal and real yields decrease, the present value of the cash flows increase. Liabilities are time-sensitive too.

Q/ What were the market movements on equity and bonds?

	Variation 1/1/2020 - 4/30/2020	Variation year-on-year
s179 liabilities (%)	5.6	17.9
Assets (%)	0.3	8.3
Factors of performance and risk		
Equity (*)		
FTSE All-Share Total Return Index (%)	- 21	- 16.7
Nominal Bonds : Gilt		
20-year fixed interest gilt yield (bps)	- 75	- 108
Inflation / index-linked Bonds : Gilt		
5-15 year index-linked gilt yield (bps)	- 20	- 42

As the equity markets fell down and yields of nominal and indexed linked Gilts decreased during the first four months of 2020, the deficit increased in a very high volatility context / Ref: VIX Index graph below (**)

(*) FTSE All-Share Total Return Index: the index represents the performance of all eligible companies listed on the London Stock Exchange.

(**) VIX Index is a financial benchmark designed to a market estimate of the expected volatility of the S&P 500 Index.

Q/ As a quick reminder, what were the market movements on equity and bonds since 2007?

20-Year Fixed Gilt Yield: decrease of interest rates…

FTSE All-Share Total Return index: the return of the equity markets is positive but the performance is not important enough to compensate the strong downtrend on yields that were already very low on the liability side…the consequence is a much bigger deficit.

Philippe-Nicolas Marcaillou biography

Philippe-N. has held various management positions in the investment, capital restructuring, debt structuring, capital markets and Pension Fund sectors in the UK, France and the US.
As an expert in Debt Structuring Solutions, he was the Head of Group Financing and Subsidiaries for Lafarge Group. He created and successfully managed the Debt Structuring Department for CM-CIC Group.
He served as a Chief Investment Officer at Veolia Environnement UK Pension Fund where he oversaw the complete restructuring of the Asset-Liability structure. In addition, he implemented and managed an optimal investment strategy.
He contributed also to the creation of an investment portfolios management department where he manages investments in cash, bonds, interest rates and derivatives products.
Philippe-N. is currently Managing Director in the Capital Markets Department at a major bank.

Philippe-N. is an INSEAD Alumnus, he was a PhD student at the Arts et Metiers Paris (CNAM), holds a Masters Degree in Corporate Finance from Arts et Metiers Paris (CNAM) and a MBA in Trading & Capital Markets from E.S.L.S.C.A Business School.

He is passionate by theology and philosophy, tennis in competition and English / kick boxing.

Philippe-N. is also an author of financial articles and books; he published:

- "Defined Benefit Pension Schemes in the UK - Asset & Liability Management"
Oxford University Press.

This book provides a step-by-step methodology to maximize the complete restructuring, the management and the monitoring of the performance and the risk of the Asset & Liability structure of DB schemes - 416 Pages - interview of more than 700 investment experts - more than 400 Figures and Tables.

There is more information at:

https://global.oup.com/academic/product/defined-benefit-pension-schemes-in-the-uk-9780198738794?cc=us&lang=en&#

https://www.youtube.com/watch?v=NvF7E_g-BNM

He has also co-written a new book (2020 publication project) with the title "Corporate Performance & Risk Management". This book focuses on the analysis of performance and risk of corporate management with a specific view on intangible assets.