Pension Policy Research Group Seminar
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Pension Funds: Markets and Risk

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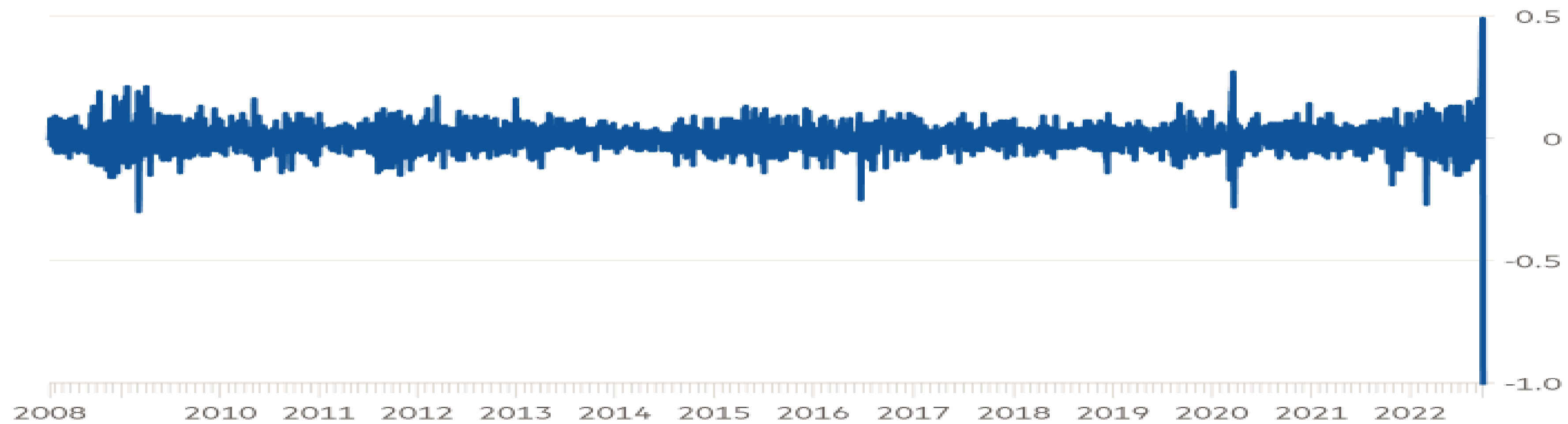
The Kwasi Crash

- This paper considers two issues the ‘Kwasi Crash’ in the UK, and Automatic Enrolment in Ireland .
- The Kwasi Crash
- The recent crisis in the Government debt market in the UK caused UK pension schemes to fall in value by around £500 billion.
- The BT pension fund stated that “significant market volatility in the second half of September” caused the scheme’s assets to fall by around £11bn between September 23 and 28” of 2022.
- This period of exceptional falls in UK Government debt values and rise in yields has been described as “ not quite a Lehman moment. But it got close.

Volatilty in UK Government Debt



Risk and Government Bonds: The Kwasi Crash

The large fall in value of UK Pension schemes resulted from investment strategies by pensions funds.

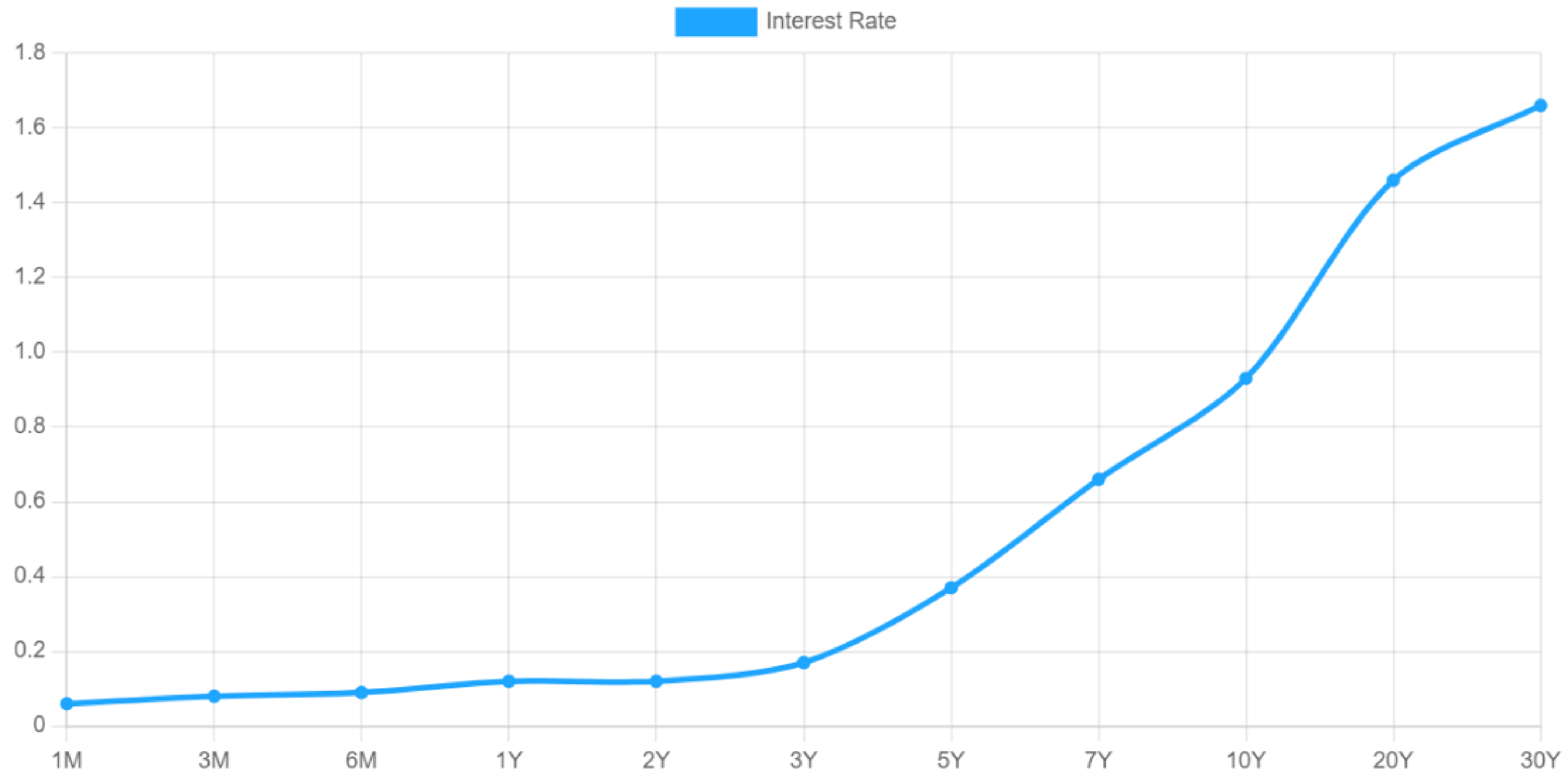
In recent years there have been low/negative rates on short date Government debt and low but positive rates on longer dated government debt.

The overall yield curve was upward sloping.

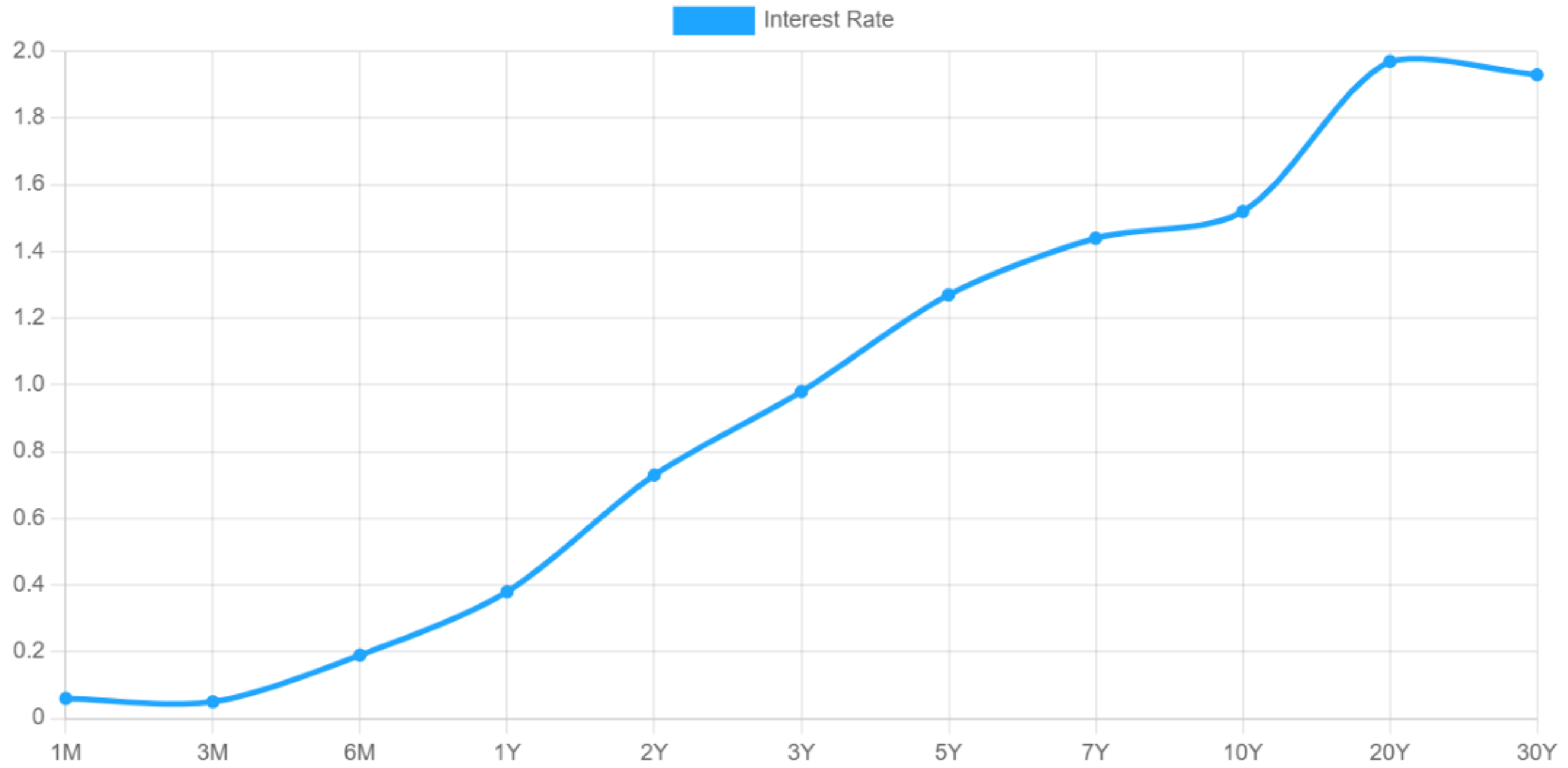
Investment strategies involved borrowing funds on a short term basis and using these funds to purchase longer dated government debt. The more funds were borrowed and invested in longer data government debt the greater the returns.

The overall investment strategy is described as Liability Driven Investing or LDI.

.December 30 2020 The Strategy: Liability Driven Investment (LDI)



December 30 2021-



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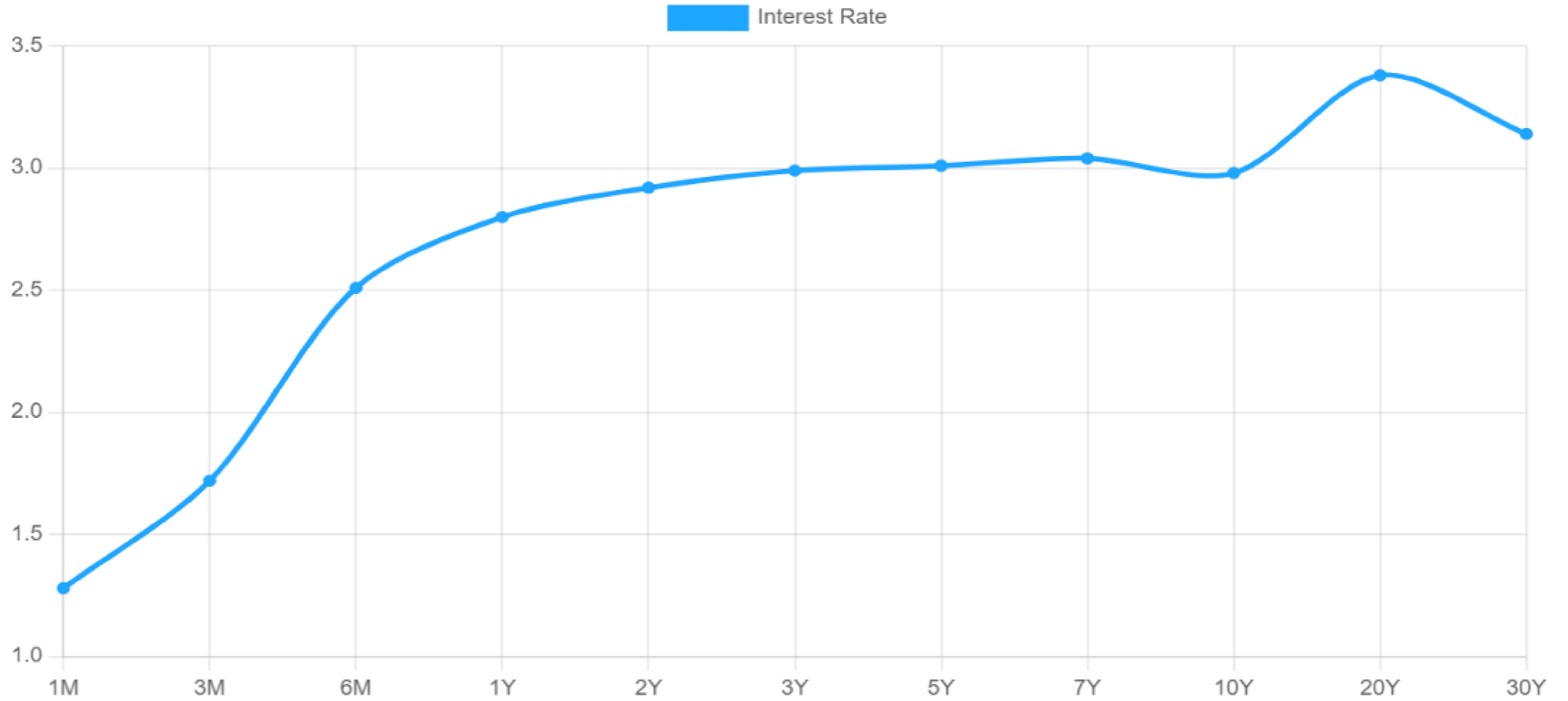

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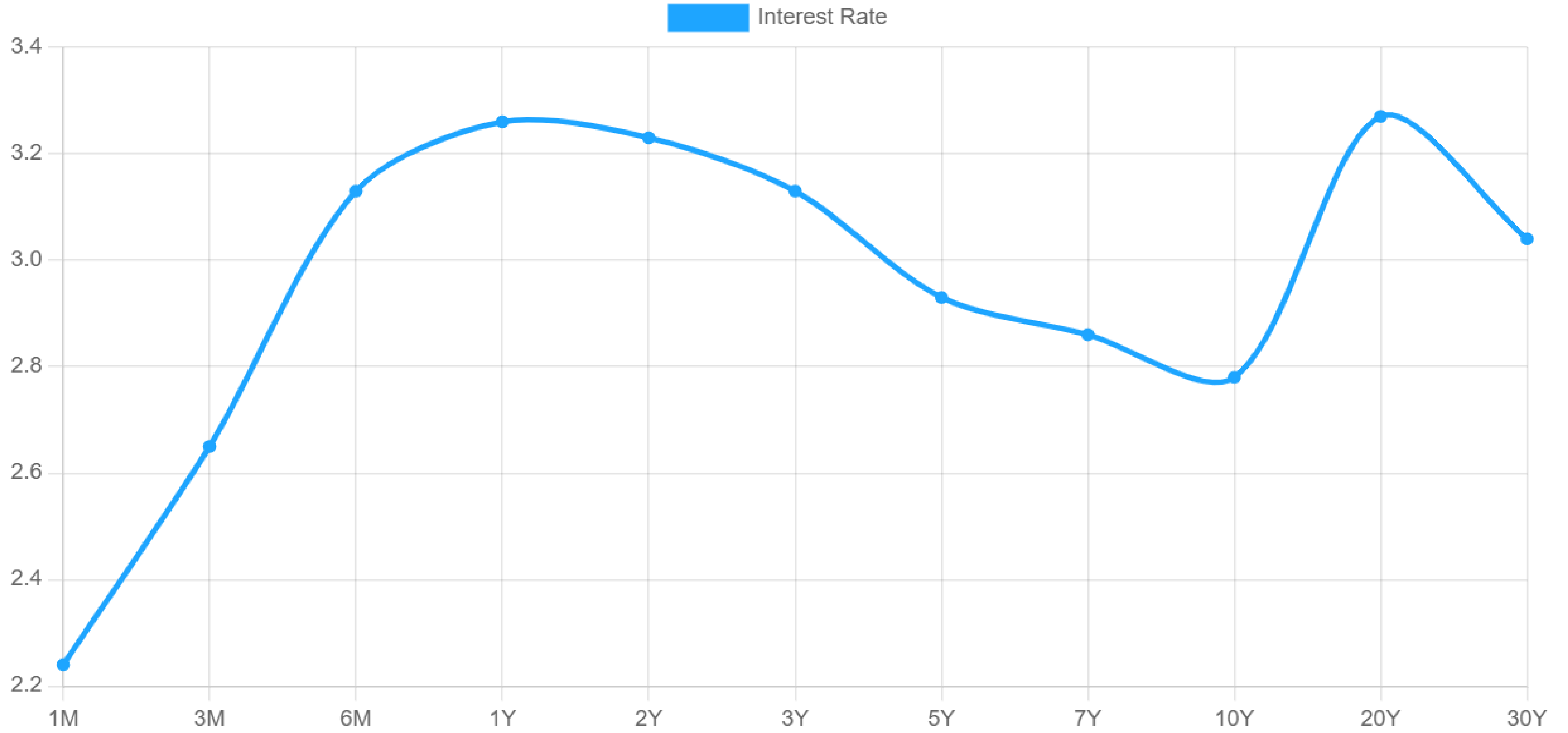

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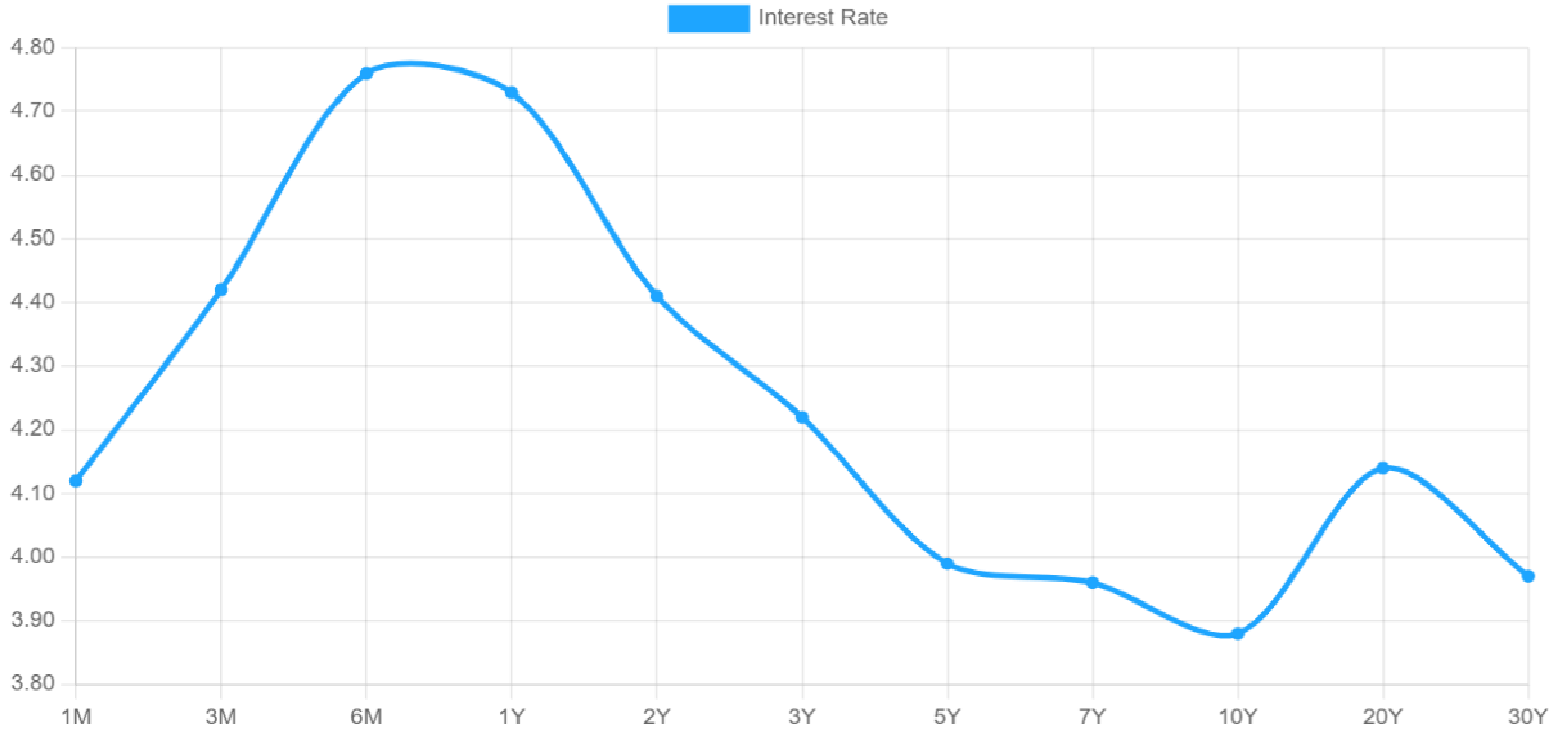

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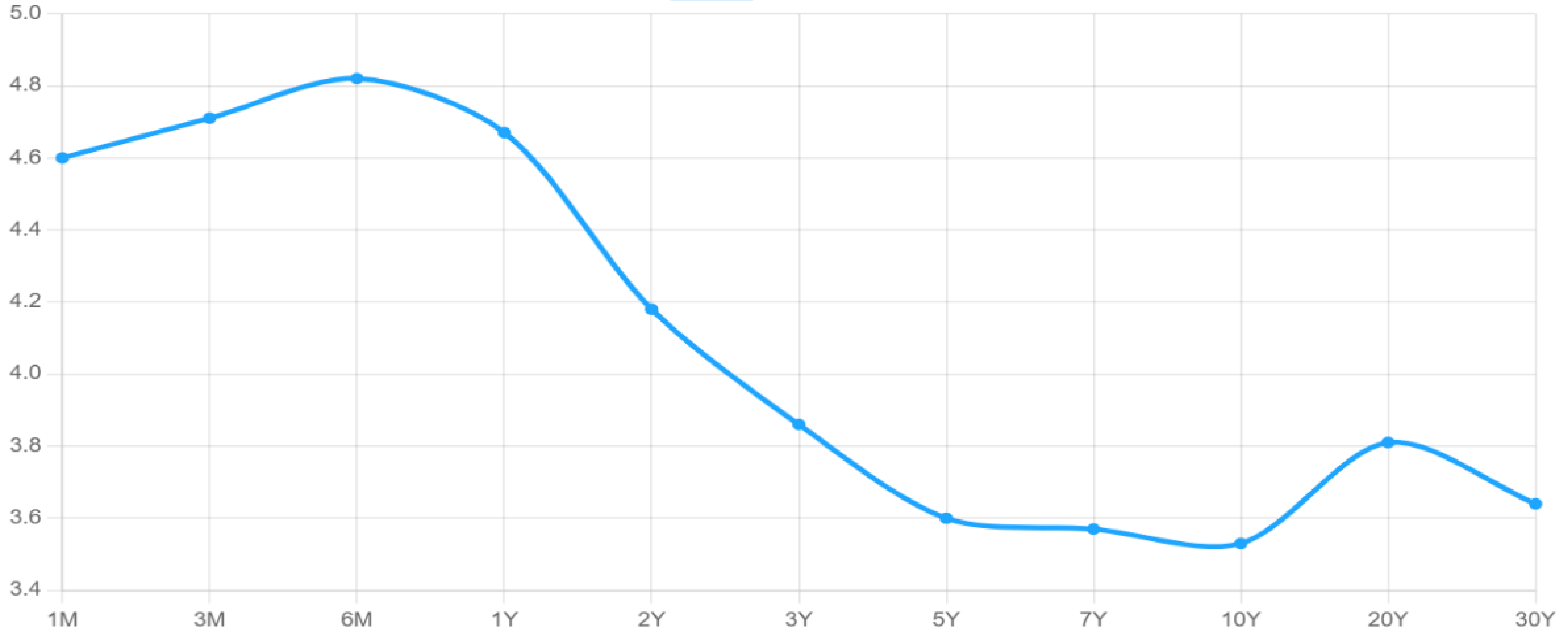


Note:- UK Government yield curves show similar but not identical patters.

Bank of England Intervention Required

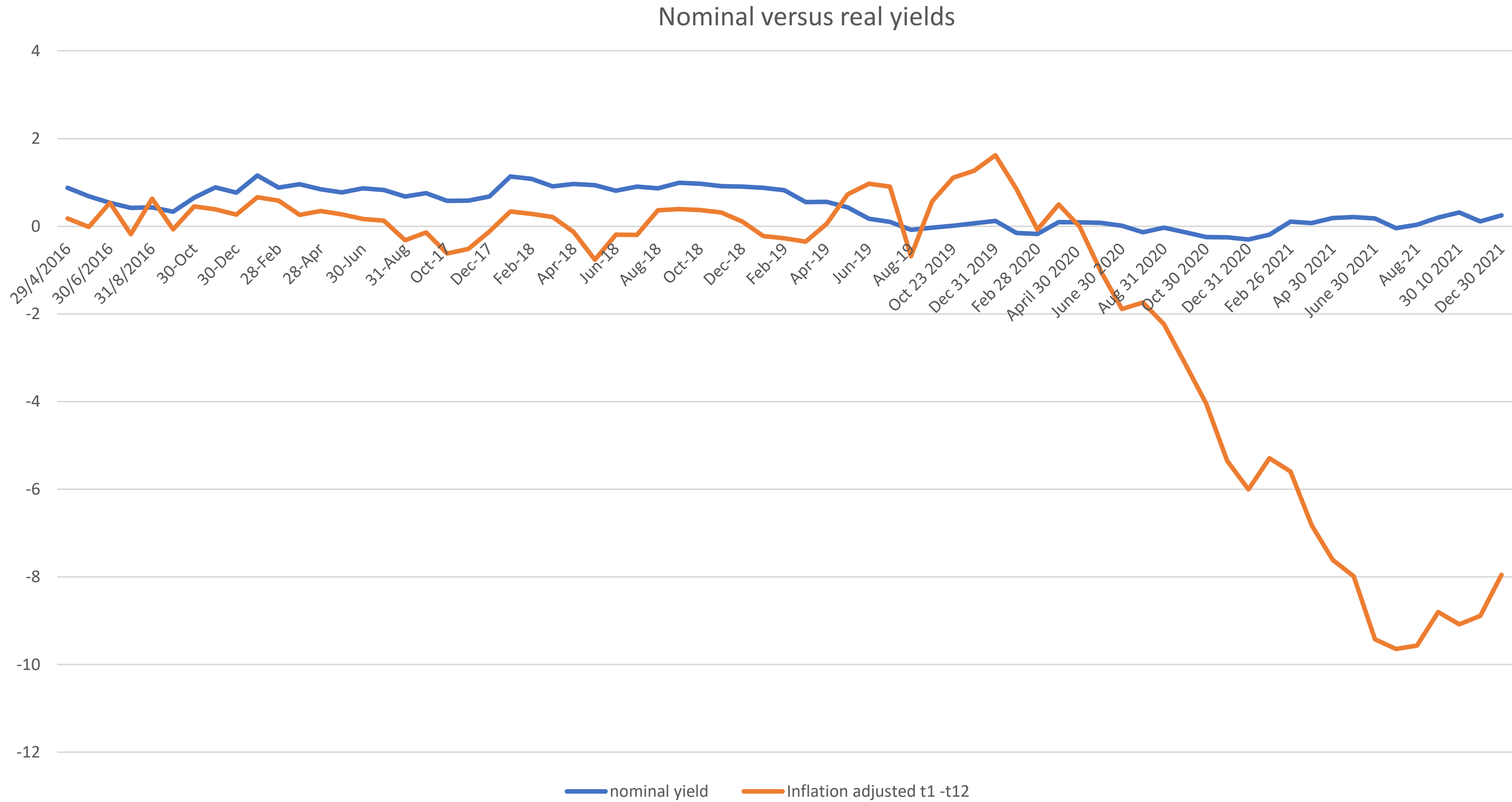
Eventually the Bank of England intervened to purchase Government debt and stabilise Government debt prices and yields.

These investment strategies were permitted by the Pensions Regulator in the UK and are described as “Using matching assets to manage investment risk relative to the scheme liabilities”.

Similar investment strategies may affect by pension funds in other countries such as the Netherlands. As a result the Dutch Central Bank has advised Dutch pension schemes to increase their holdings of liquid assets.

But given strict rules against leverage may not do so for Ireland.

Risk and Government Bonds: Rising Inflation and Falling Real Yields



Falling Real yields

Figure (1) shows a rise in nominal interest rates and a steep fall in the real yield to -8% for a bond purchased in April 2021 and held for one year.

The effect of negative real yields and associated fall in bond prices (as price movements are inverse to yields) depends on the proportion of bonds in pension fund portfolios.

Defined Benefit schemes are particularly adversely affected. According to pensions Board data Government and other debt amounted to 45.1% of total assets in 2020.

Automatic Enrolment

The Bill enacting Automatic Enrolment is undergoing pre-legislative scrutiny by the Social Protection Committee.

The proposed scheme has many similarities to the equivalent UK scheme.

The main one of which is that it will be a funded scheme managed by investment managers.

It is likely to suffer similar defects. Risks remain with individual members, amounts accumulated in funds are low, perhaps due to low returns net of costs.

There are other issues. For example those targeted are likely to have disrupted work experience, and frequent job changes making administration and tracking of funds more difficult – the issue of lost accounts.

Partly as a result some proposed modifications relating to investments and returns have achieved considerable coverage as in the Irish Times headline

Proposed amendments to AE Scheme

The Government's plan for pension auto-enrolment is flawed - there is a better way

Colm Fagan Irish Times 4th Jan 2023

"An alternative approach would give members higher benefit expectations for two-thirds the cost and provide better inflation protection in retirement".

(see also Sean Keyes, The Currency 26 Oct. 2022).

The proposal depends on key assumptions relating to costs, returns and risk.

Current AE Rules

(1).. The rules for Automatic Enrolment apply, means eligibility is limited to employees aged between 23 and 60, with minimum earnings of €20,000;

Employees and employers will contribute a max of 6% and the State 2%.;

The State will establish and fund a ‘central Processing Authority which will manage the AE system and funds will be managed by investment companies in the private sector.

These investment companies will be obliged to offer a range of ‘savings funds to chose from’.

New Proposed Rules

(1).. Higher returns by only investing in equities for longer periods (70+ years). This will ensure funds benefit from an Equity Risk Premium

2) There would be one scheme for all those enrolled in AE schemes thus reducing risk to individual members.

(3)..The main contributor to the superior outcome is a sharing of the risks and rewards of equity investment across generations,

(4) Assumed costs are 0.5% because for example extra charges on retirement are eliminated;

(5) “employees will be allowed to leave the national scheme, their accumulated savings will remain in it until their retirement, and even then, can only be withdrawn in instalments in accordance with the

The Equity Risk Premium

Higher returns are achieved because of an ‘equity risk premium’.

This extra return is captured by remaining fully invested in “equities at all times”.

Studies are cited (mostly from financial institutions Barclays Bank) of an additional return over bonds of over 4% on average.

While acknowledging (p. 18) that “no one can predict the equity risk premium, particularly over the next 70 years or longer”, it is also stated that “The only thing we can be sure of is that it must be positive in the very long-term”.
“The advocates of an equity only strategy must allow for the risk of sustained underperformance, possibly extending over many years”.

This raises the issue of choices between short run versus long run benefits.

This choice is expressed in Keynes phrase ““In the long run we are all

Is the Equity Risk Premium flawed

Some argue that studies of the equity risk premium are flawed

The equity risk premium is a function of the time period chosen.

There may be Survivor bias;

Returns may be difficult to define. Stock market indices do not include dividends and their composition also changes through time;

Index construction is important arithmetic or geometric mean can lead to different results.

Wars and the Equity Risk Premium

Other research indicates that over the very long term (> 100 years) returns are heavily influenced by whether a country has suffered some catastrophic event (war or invasion – Germany, regime change - Russia) (

In particular some argue that equity risk premia for the U.S. are atypical

(Jorion and Grotzman, Journal of Finance, June 1999, Table 1).

They state (p. 978) :-

“.. .. the 4.3 percent real capital appreciation return on U.S. stocks is rather exceptional, as other markets have typically had a median return of only 0.8 percent”.

Returns for Sweden and Switzerland are also exceptional.

All these countries have never been invaded

The Smoothing formula

There are issues relating to a a proposed“ smoothing formula”.

This will be based on ‘market values’.

The proposal means the volatility of markets is not removed but returns to pension scheme members are averaged over a number of years

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A downward trajectory in equity prices will be reflected in a downward trajectory in returns (smoothed) to investors.

There is another issue relating to how the market value of unquoted assets will be determined could be 30% or more (p. 28).

Some Conclusions

Recent events in Government debt and other markets have drawn attention to the inherent risks of a funded pension scheme.

Investing solely in equities changes the nature of investment risk, but does not eliminate and could increase risk.

Including retirees in a pensions scheme makes a DC scheme more similar to a DB Scheme in the sense of mutualising risk.

The wider the population included the lower individual risk

It is possible that a portfolio of assets (including property, corporate debt as well as Government debt whose returns are not correlated could increase returns and reduce risk

The Purpose of a pension scheme

Essential point of a pension system is to transfer future resources from those at work to those not at work.

Key issues are what Is the most efficient means of achieving this transfer? What is lowest risk?

What is equitable?

No pension system can be organised without cost and without risk