BlackRock was the largest investment manager of pension schemes that utilized a strategy called "Liability Driven Investments" (LDI). The idea behind LDI is that the return on the pension assets isn't as important as the return relative to the liability. If the S&P 500 goes down by 20%, but your investment manager only goes down by 19%, they would be lauded as heroes even though the plan is left now with a large hole to fill. Moreso, if rates decreased by 100bps, the liability would increase by around 12%, so the plan should want either an investment or a hedge that paid off that 12%. I was personally advising plans on this strategy in 2004 and, while the practice never caught much traction in the US, it was widely used in the UK. One can easily visualize long-duration bond rates decreasing mostly monotonically from 2004 through 2022 and conclude that such a strategy would have been incredibly successful.

The long-duration bond was one of the greatest-performing asset classes of all time during that period. Rates went straight down, and if you forgot they were tracking a liability, you might confuse the pension assets with gains available for company operations.

A paper by Theo Mogonet, "Orange is the New Green", says that companies did exactly that. Mogonet suggests that companies were accessing their gains without selling the

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Deputy Governor for Financial Stability at the Bank of England, dated October 5, 2022. https://www.bankofengland.co.uk/-/media/boe/files/letter/2022/october/letter-from-jon-cunliffe-ldi-5-october-2022.pdf assets by borrowing.[7] The companies essentially post the bonds with their unrealized gains as collateral for loans to fund their operations. Red flags should have gone up immediately for BlackRock, and the other fiduciaries overseeing these LDI strategies, which also included smaller managers like State Street and Legal & General. But this practice took place without incident as long as the long-term interest rates continued to decrease or stay the same. UK Pension regulations are not specific on how to handle LDI investments, leaving the risk to be managed between the plan sponsor and their investment manager. While there isn't a lot of public disclosure as to how BlackRock managed their clients through this practice, if I'm being generous, they surely had a Liquidity Risk Management program in place that made sure that they could cover their clients in the event of a reasonable rate increase. Let's go into a little detail on what should have been expected.

In the event that rates change direction (an event that most professionals had little vision for or experience with), the collateral backing the pension sponsor's loans decreases in value. If the decrease is severe enough, they might be forced to liquidate the assets in order to unlock the gains to pay off the loan. It is a similar concept to if a person takes a loan, his collateral can be liquidated if his loan-to-value ratio rises to a critical value. It would be standard practice for BlackRock to ensure that their clients had enough cash and

[7] Mogonet, T., "Orange Is The New Green - The Emergence of Bitcoin Money Market Funds" https://www.axiombtc.capital/orange