US pension funding ratios decreased over the fourth quarter of 2018

Legal & General Investment Management America, Inc. (LGIMA) announced today in its Pension Fiscal Fitness Monitor, a quarterly estimate of the change in health of a typical US corporate defined benefit pension plan, that pension funding ratios fell over the fourth quarter of 2018. LGIMA estimates the average funding ratio declined from 91.5% to 84.4% over the quarter based on market movements.

Global equity markets decreased by 12.65% and the S&P 500 decreased 13.52%. Plan discount rates increased by 3 basis points, as Treasury rates decreased 23 basis points and credit spreads widened 26 basis points. This resulted in a 0.74% increase in plan liabilities. Overall, plan assets with a traditional “60/40” asset allocation fell 7.05%, resulting in a 7.1% decrease in funding ratios over the fourth quarter of 2018.

Ciaran Carr, senior solutions strategist at LGIMA, said, “We estimate that funded ratio levels for the typical plan with a traditional asset allocation decreased over the fourth quarter, largely due to negative equity performance.”

Carr added, “We continue to see an uptick in demand for more customized strategies to help hedge interest rate risk and mitigate funded ratio risks. Completion management, multi-asset hedging and tail risk strategies remain in high demand as plans hope to reduce downside risk and invest in more diverse asset classes.”

The Pension Fiscal Fitness Monitor assumes a typical liability profile and 60% global equity/40% aggregate bond (“60/40”) investment strategy, and incorporates data from LGIMA research, Bank of America Merrill Lynch and Bloomberg.

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About LGIMA: Legal & General Investment Management America, Inc. (LGIMA) is a Chicago-based registered investment advisor which specializing in the design and management of investment solutions across active fixed income, index strategies, multi-asset and liability driven investment (LDI) for the US institutional market. With over $185.6 billion in assets under management as of September 30, 2018, LGIMA is a wholly-owned subsidiary of Legal & General Investment Management (Holdings) Ltd. (LGIM(H)), which also owns its affiliates Legal & General Investment Management Ltd. and LGIM International Ltd. Legal & General’s worldwide assets under management are approximately $1.3 trillion as of December 31, 2017. In May 2014, LGIMA became a wholly owned subsidiary of Legal & General Investment Management US (Holdings), Inc. (LGIMUS(H)) which is wholly owned by LGIM(H).
Pension funded status market summary:

- Although liability values decreased slightly, the negative asset portfolio returns (composed of a 60/40 mix of global equities and US Aggregate bonds), led to funded ratios decreasing.
- Equity markets decreased, with global equities down 12.65% and the S&P 500 down 13.52%.
- Treasury rates decreased by 23 basis points while credit spreads widened 26 basis points.

<table>
<thead>
<tr>
<th>Funded status risk</th>
<th>Q4 2018</th>
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</thead>
<tbody>
<tr>
<td>Equities</td>
<td>↓</td>
</tr>
<tr>
<td>Interest rates</td>
<td>↓</td>
</tr>
<tr>
<td>Credit spreads</td>
<td>↑</td>
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</tbody>
</table>

Source: LGIMA, ICE indices, and Bloomberg

Discount rates (end of quarter):

Source: LGIMA, ICE indices, and Bloomberg

Funding ratio performance of select pension investment strategies (over the quarter):

Source: LGIMA, ICE indices, and Bloomberg
The Pension Fiscal Fitness Monitor measures the historical market-related funding ratio performance of the traditional “60/40” investment strategy and highlights a few different approaches to implementation.

For each of the three approaches to implementation, we analyze how funding ratio performance would have changed for two different levels of equity exposure – 60% and 40%. We define two different LDI approaches as follows:

- **Traditional**: Allocating 60% to equities and 40% to either aggregate fixed income or Long G/C
- **Level 2 LDI**: Custom liability benchmark and derivative overlay designed within a total portfolio context
  - **Level 2 implementation** shown for comparison purposes and is chosen based upon the funding ratio of “a typical US corporate defined benefit pension plan” as of the beginning of the quarter

<table>
<thead>
<tr>
<th>Traditional</th>
<th>Equity</th>
<th>LHA</th>
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<tbody>
<tr>
<td>60/40 Aggregate</td>
<td>60% MSCI AC World</td>
<td>40% Barclays Aggregate</td>
</tr>
<tr>
<td>60/40 Long G/C</td>
<td>60% MSCI AC World</td>
<td>40% Barclays Long Government/Credit</td>
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<tr>
<td><strong>Level 2</strong></td>
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<tr>
<td>Level 2: 40% Equities / 90% IR Hedge</td>
<td>60% MSCI AC World</td>
<td>33% Barclays Long Credit A-AAA, 27% Treasuries and Futures</td>
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</table>

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