HEALTH WEALTH CAREER

MERCER GLOBAL PENSION BUYOUT INDEX

SEPTEMBER 2018

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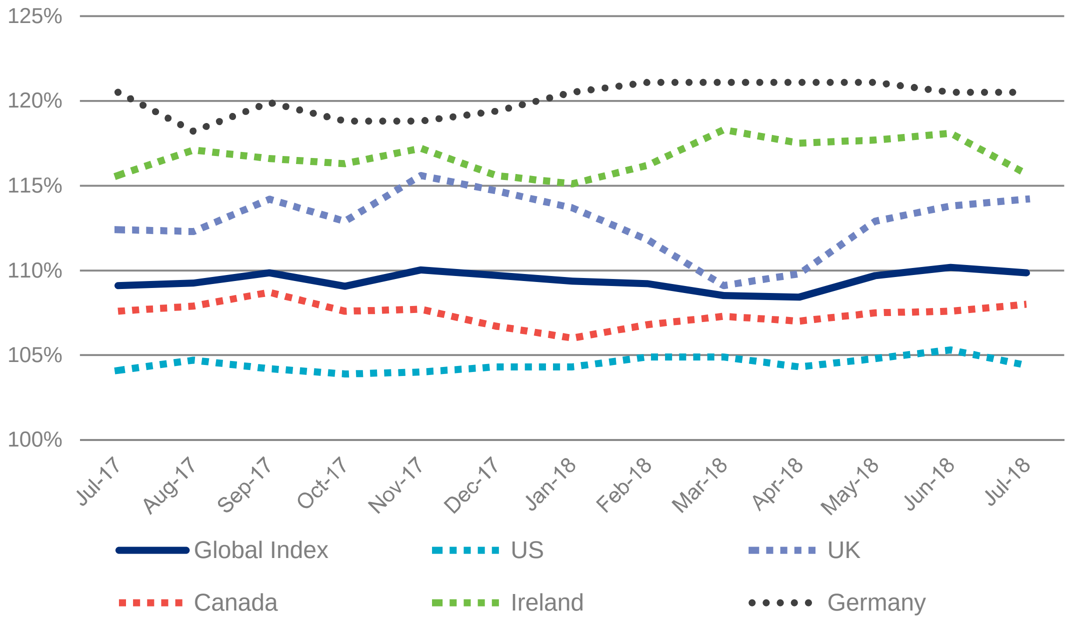
EXECUTIVE SUMMARY

Mercer Global Pension Buyout Index monitors the general trend in the pricing of bulk pension annuity transactions in the US, UK, Canada, Ireland and Germany.

Pension risk transfer transactions increasingly involve an international element – for example, the sponsoring employer might be seeking to externalise pension risk in multiple countries. Pricing is subject to movements in global financial markets and domestic requirements for insurer reserving. However, country-specific pricing often trends in different directions due to domestic influences, leading to windows of opportunity in one country relative to another.

The chart shows estimated annuity prices from insurers as a percentage of accounting liability in the five countries monitored, for existing retirees in a sample defined benefit pension plan. This is based on up-to-date pricing information provided regularly by insurers in each country.



For example, where a line is at the 110% level, Mercer estimates the average price of a pension annuity transaction for current retirees to be broadly 10% higher than the equivalent accounting liabilities. The Global Index is represented by the solid line, showing the average price of pension annuity transactions as a percentage of accounting liability across the five countries and draws upon information such as country market size.

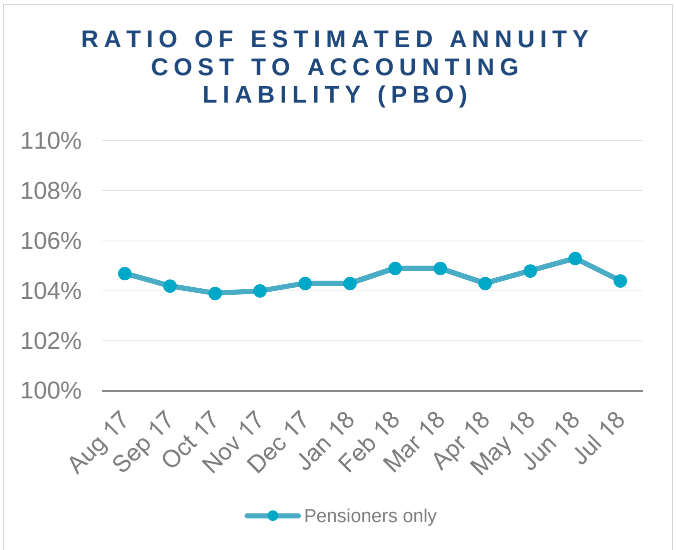
The Global Index has fallen during July, with the decrease resulting from a downward movement in the Ireland and US indices which more than offset the upward movement of the Canada index (the UK and Germany indices remained roughly unchanged).

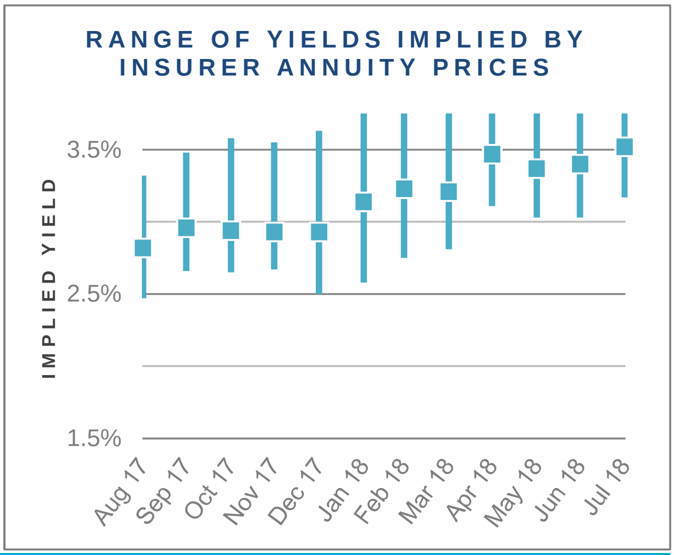
Pension liability has been measured according to local standards. As an example, the cost of insuring pension liabilities in the UK is higher than in the US (relative to accounting liabilities) partly because UK pension liabilities are commonly indexed for inflation and partly due to generous attaching spouses pensions, both of which increase the liability duration. Insurers also charge an additional premium to take on inflation risk.

Mercer appreciates the assistance of more than 20 insurers, which provide pricing data every month to allow this report to provide a good indication of the trend in each country.

UNITED STATES

The cost of a buyout had been decreasing a number of years ago relative to PBO accounting liabilities, however this relationship has remained relatively stable over the last couple of years. Price transparency allows for greater information from which a plan sponsor can act. The chart on the left shows the relative price to PBO using average pricing received from insurers, and the chart on the right shows the range of sample pricing received. At a single point in time pricing between insurers varies materially which may lead to a difference in cost of up to 10%.





At the end of July 2018, if the accounting liability in respect of plan pensioners only was US$100 million, the buyout cost would be broadly US $4.4 million higher, as compared to May where the cost would have been US $5.3 million higher.

When insurer pricing rates increase relative to discount rates used to calculate PBO, the premium for an annuity buyout decreases.

It should be noted that the above implied yield has increased slightly more compared to corporate bond yields over July, resulting in the slight decrease in the ratio shown in the chart above and to the left.

UNITED STATES MARKET NEWS

In mid-2015, Mercer launched Mercer Pension Risk Exchange®, a groundbreaking solution that both increases annuity price transparency by enabling plan sponsors to continuously monitor pricing and helps plan sponsors execute group annuity buyouts in a shorter timeframe and in a more competitive pricing environment. Given the current level of volatility, it is not surprising that we already have almost 150 clients in the US, representing almost US$19 billion of assets, signed up to Mercer Pension Risk Exchange to execute an annuity placement. Please see the infographic at the end of this report for more information.

With rates increasing and plan sponsors reaching PBGC caps, buyout activity has steadily increased. Pension risk transfer premiums exceeded $23 billion in 2017, according to the LIMRA report. We expect that premiums placed in 2018 will be approximately $20-25 billion.

Mercer continues to take a market-leading role in advising plan sponsors on jumbo buyout deals, having been the lead advisor to five of the largest eight deals over the past three years and led 35% of all deal volume transacted across 2016 and 2017.

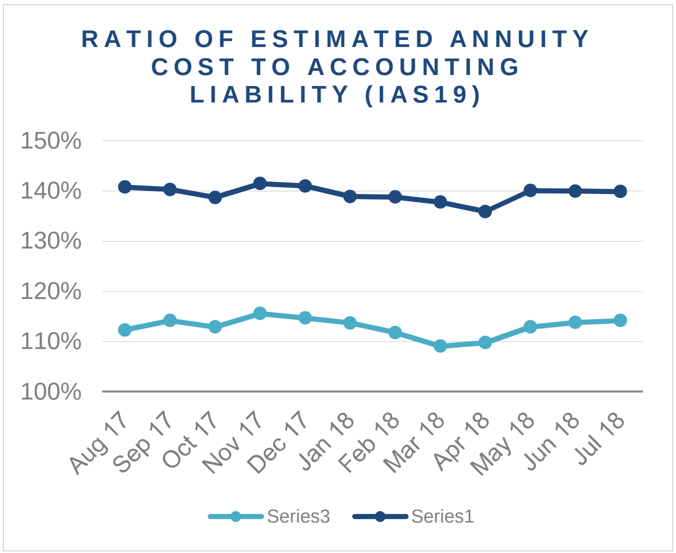
NOTES

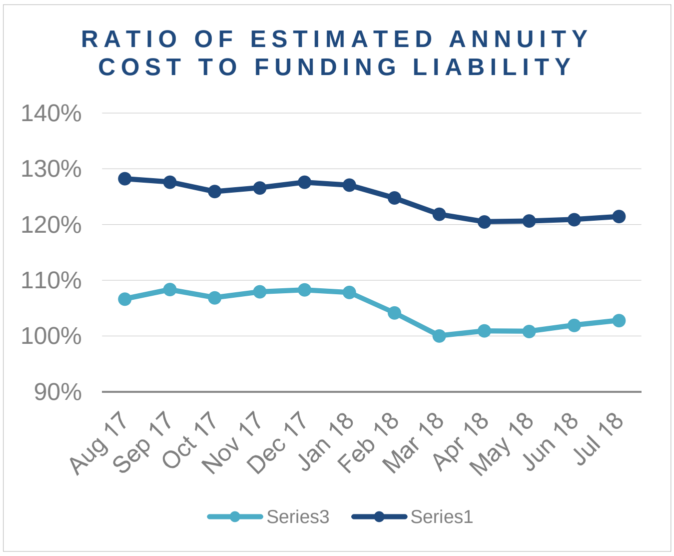
The chart on the left is based on a set of liabilities with pension benefit obligations of US$50 million, cash flow duration of 9 years, and discounted using the Mercer Yield Curve.

The figures in the charts should be used as an indication of the market pricing for annuity placements; actual pricing received will depend on plan-specific factors such as plan provisions, size, and age of the population. It is important to note that some of the insurers who provide pricing do not reflect mortality sensitivity in their illustrative rates, or benchmark to a standard table.

UNITED KINGDOM

The charts track the cost of a buyout and buy-in of a representative pension plan against accounting and typical funding liabilities. The plan has pensioner and non-pensioner liabilities, with a weighting towards pensioners. Pensioner and non-pensioner members receive a mixture of flat and increasing pensions in payment, commensurate with an "average" UK pension plan.





At the end of July 2018, if the plan had accounting liabilities in respect of all members of £100 million, the buyout cost would be broadly £40 million higher.

If the accounting liability in respect of plan pensioners only was £100 million, the buy-in cost of pensioners would be broadly £14 million higher.

At the end of July 2018, if the plan had typical funding liabilities (technical provisions) in respect of all members of £100 million, the buyout cost would be broadly £21 million higher.

If the typical funding liability in respect of plan pensioners only was £100 million, the buy-in cost of pensioners would be broadly £3 million higher.

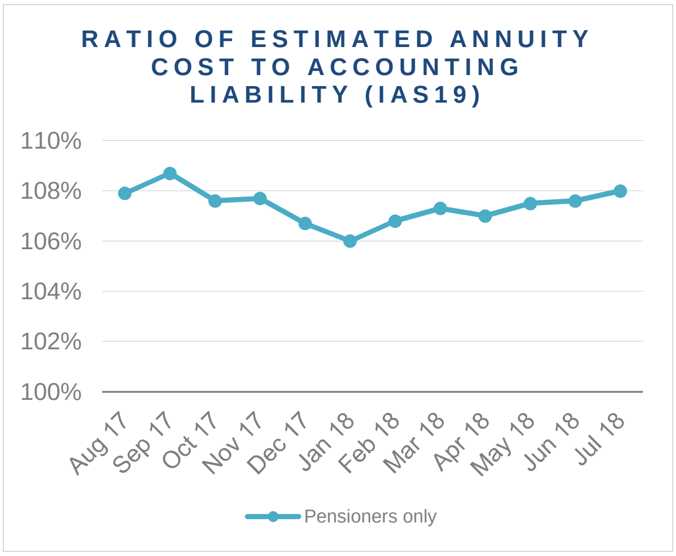
UNITED KINGDOM MARKET NEWS

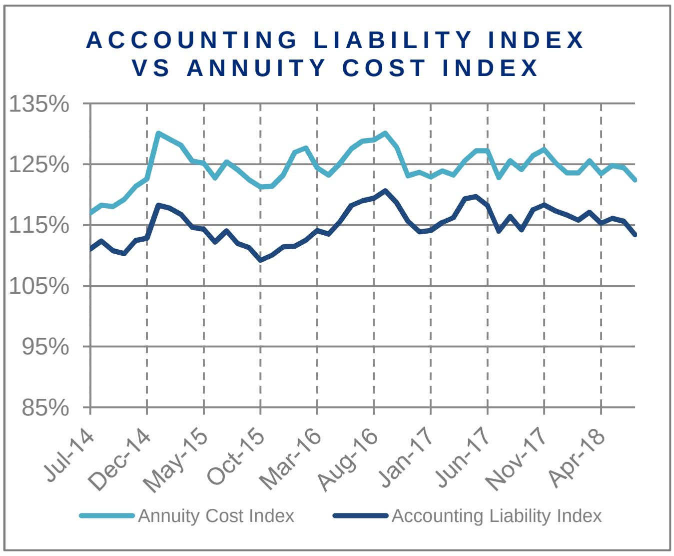
With bond yields and price inflation expectations holding fairly steady during 2017 and equity markets showing strong returns, the eight insurers active in the market wrote total bulk annuity premiums of £12.3bn for the year as a whole, although no individual transactions over £1bn in size were completed.

We are expecting premium volumes to grow further in 2018, with strong insurer pipelines reported and the potential for a number of multi-billion pound transactions to be completed. Despite some volatility in investment markets, the consensus remains that this could lead to annual premium volumes in relation to occupational pension scheme transactions exceeding £15bn for the first time. In addition to this 'regular' business, it was announced in March 2018 that Prudential plc has sold around £12bn of its annuity portfolio to Rothesay Life.

CANADA

The charts track the movement in the cost of a group annuity as a percentage of the associated accounting liabilities for a representative sample group of retirees.





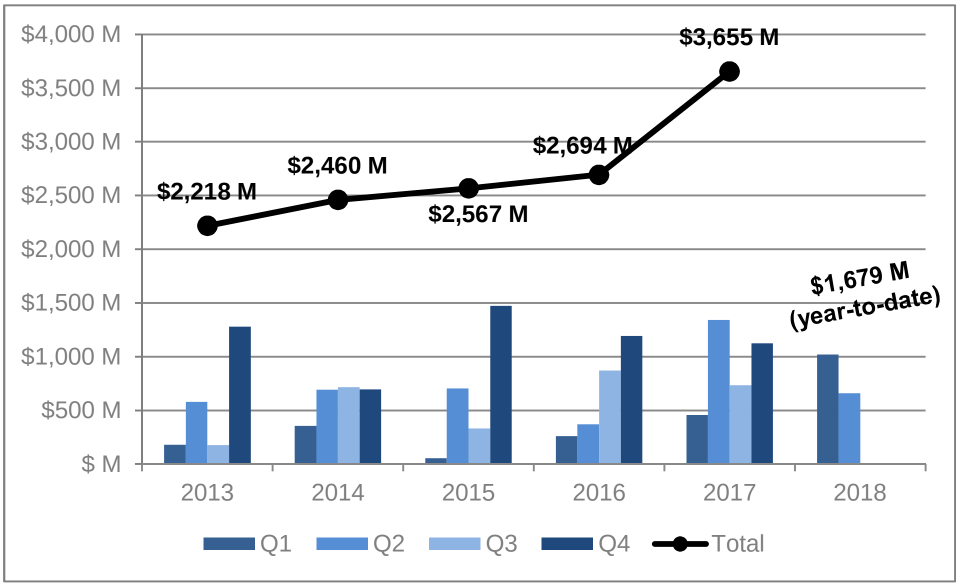
During July 2018, the Index increased by 0.4% from 107.6% to 108.0%. This implies that, at the end of June, the cost of settling obligations through the purchase of annuities was 8% higher than the accounting liability.

It is also important to consider the absolute cost of settling plan obligations. This can be best accomplished by looking at the movement of each component of the index in isolation. To do so, we look at the yields of long -term government bonds, which drive annuity pricing, and compare them to the yields on AA corporate bonds, which are used to calculate accounting liabilities.

Yields on long-term federal bonds, which are assumed to back annuity purchases , and yields on corporate bonds, assumed to back accounting liabilities, both increased by roughly 15-20 basis points in July. The impact was slightly larger on accounting liabilities than on annuity costs as corporate spreads widened. In turn, annuity costs decreased slightly less than accounting liabilities, leading the index to rise from 107.6% to 108.0%.

CANADA MARKET NEWS

The Canadian group annuity market saw a slower Q2 after a record setting Q1. The Q2 volume of $659M puts the 2018 mid-year volume slightly lower than that of 2017.



With over to 280 plans having enrolled as of August 2018, the Mercer Pension Risk Exchange® has established itself as a global tool to help clients meet their de-risking objectives in an efficient and cost-effective manner. Over US$58B of plan liabilities have been committed to the platform and close to US$20B has been successfully secured with insurers. In Canada, 29 pension plans have executed transactions through the Exchange with total premiums just over C$1.0B.

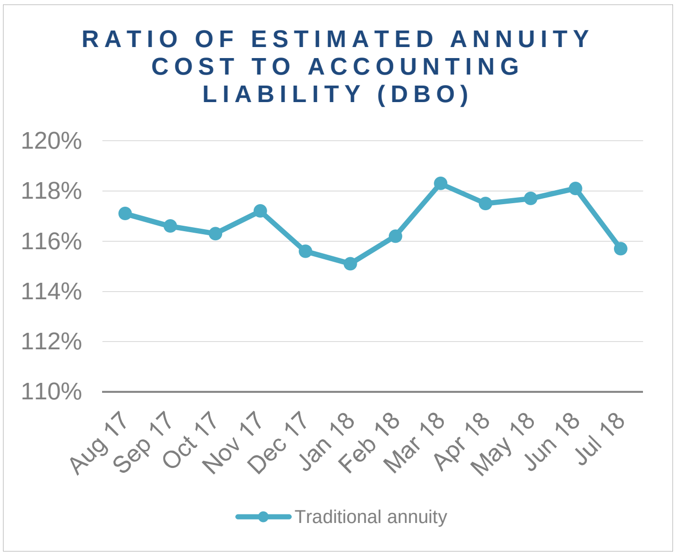
NOTES

The Index is based on an estimate of settling non-indexed pension obligations through the purchase of annuities and an accounting discount rate based on a proprietary model developed by Mercer to assist our clients with selection of the discount rates used for the purpose of corporate financial reporting. It is provided for a sample group of non-indexed retired members and is only intended to illustrate general trends. The actual premium can vary significantly for individual plans based on a number of factors that may include:

- The plan’s benefit structure and timing of its anticipated benefit payments.
- The demographic profile of the plan’s participants.
- Market conditions prevailing at the time benefits are distributed and annuities purchased.
- Insurer appetite and capacity for a transaction.
- Which employees, if any, receive and accept an offer to take a lump sum instead of an annuity.

IRELAND

The chart shows the relative cost of a buyout of pensioner liabilities of a sample defined benefit plan versus the equivalent liabilities on a company accounting basis.



At the end of July 2018, if the Plan had accounting liabilities in respect of pensioners only of €100 million, the cost of a traditional annuity would be broadly €16 million higher.

IRELAND MARKET NEWS

Bond yields in core Eurozone countries increased over the month of July 2018; leading to a decrease in the indicative cost of buying out pensioner liabilities. Corporate bond yields, which drive the equivalent accounting liabilities, also marginally increased over the month and so accounting liabilities decreased slightly. The net impact was a significant decrease in the index over the month.

Activity in the bulk buyout market in Ireland is largely driven by the winding up of pension plans which, under Irish legislation, requires the buyout of pensions in payment. However, in late 2017, Danske Bank entered into a ground breaking transaction with Irish Life, to whom it transferred €335m of its Irish DB liabilities. This deal was the largest of its kind in Ireland, and also set a precedent for using insurance strategically as part of ongoing risk management in a well-funded scheme.

July 2018 proved to be a generally positive month for returns for pension schemes on the asset side with positive returns on equity portfolios partially offset by negative returns on bond portfolios.

NOTES

The index is provided for a sample mature pensioner population and is indicative only. The benefits secured (and valued as an accounting liability) are flat pensions, with no increases in payment.

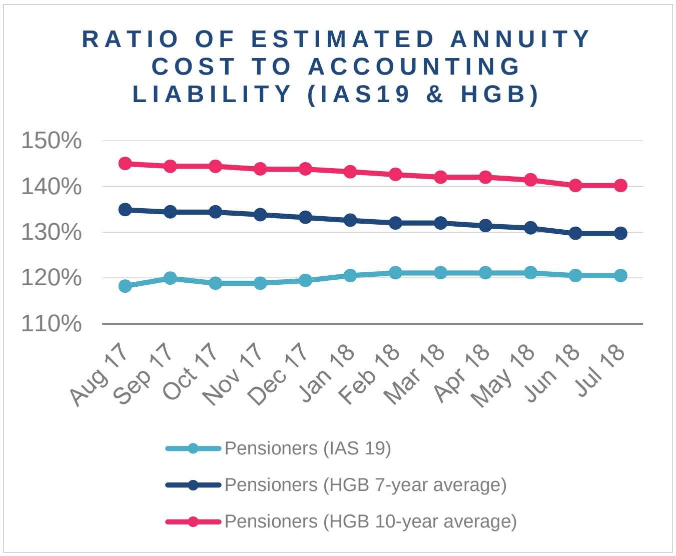
The price differential identified above will also be affected by the nature of the assumptions adopted for the accounting disclosures.

The accounting liabilities are valued using the Mercer Yield Curve, which is used by leading Irish and multinational companies to set their discount rate for accounting purposes.

The index does not make any allowance for buyout costs for active or deferred members.

GERMANY

The chart focuses on transactions in which the underlying benefit payment is reinsured for a group of retirees, but does not include additional potential liabilities from inflation indexation. It is built on a sample retiree population and compares the accounting liabilities against the insurance premium in a buyout / buy-in transaction. The pricing for the insurance policies is based on a 0.9% p.a. guaranteed rate of return. The liabilities are calculated according to German GAAP with a 10-year average as well as a 7-year average and according to IAS 19 with a 10 year duration.



At the end of July 2018, if the plan had accounting liabilities under local German GAAP (HGB) in respect of all members of €100 million, the buyout cost would be broadly €40 million higher using the 10-year average rate and broadly €31 million higher using the 7-year average rate.

If the plan had accounting liabilities under international accounting standards (IFRS) in respect of all members of €100 million, the buyout cost would be broadly €21 million higher.

ACCOUNTING AND FUNDING:

Under German-GAAP (Generally Accepted Accounting Practice) Companies are required to use a rolling average period of 10 years compared to a seven year rolling average of market rates used in the past. In addition international accounting standards are quite common.
Generally, larger organisations prefer funding through so-called Contractual Trust Agreements (CTAs), but buy-in solutions for annuities are also becoming more common.

In addition we see the trend towards a (partial) transfer to Pensionsfonds in combination with other funding vehicles.

However, there remain a large proportion of companies with unfunded pension arrangements – with pensions being paid from operating cash flow. Alternatives to funding are also being considered to reduce benefit obligations, for example by changing the plan design or by including lump sum options.

GERMANY MARKET NEWS

- According to the latest statistics (published in July 2018) the total pension obligations amount to nearly € 600 billion. Followed by the "Pensionskasse" and the direct insurance ("Direktversicherung"), the direct promise ("Direktzusage") is still the most dominant pension scheme. The funding vehicle support fund ("Unterstützungskasse") slightly decreased and the "Pensionsfonds" increased, but on a comparable low level.
- Benefit obligations of the 30 DAX companies decreased to a level of about €380 billion at the end of 2017. On the other side the fair value of the corresponding plan assets increased to a historical maximum of €260 billion. The funding ratio of the 30 DAX companies increased from 63 % to about 68 % in 2017.
- The New Occupational Pension reinforcement Law in Germany was introduced as of January 1st 2018. The main aspects are
  - Support of occupational pensions for low income employees
  - Expansion of tax incentives
  - Employer matching contribution for external funded pension schemes
  - Defined contribution with defined ambition
  - Auto enrolment (can be included in in collective agreements)

  We expect the first visible changes towards the end of 2018 and especially in 2019.
  From our point of view the overall combination of state pension scheme, private pensions with incentives and employer / employee financed company pensions can lead to an improvement in the German pension landscape.

NOTES

The illustrations are based on values used by German life insurers, public information and a representative sample of a retiree population.

The performance of the Index reflects the changes in the valuation-related discount rates and the underlying rates used by German life insurers.

Due to the applied approximation method the Index is not suitable for any company - and plan-specific pricing.

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MERCER PENSION RISK EXCHANGE™

A GROUNDBREAKING APPROACH TO PENSION RISK MANAGEMENT

Many defined benefit plans are now closed to new employees, but these plans still represent significant obligations for the company to manage alongside its on-going business. In addition to the company specific situation, economic factors are also driving up the demand for annuity transactions; however, the annuity marketplace can be hampered by long execution timelines and lack of price transparency. A plan sponsor requires robust information on the financial position of the company's pension plan, needs an understanding for how key financial metrics are developing over time, and values customized pricing information. This information must be accurate, up-to-date, and easily accessible.

CURRENT BULK ANNUITY MARKET CHALLENGES

UNPREDICTABLE MARKET

Each deal is unique and attracts different insurers. Deal pricing can vary dramatically

PRICE VOLATILITY

Pricing fluctuates over time but is not visible to plan sponsors.

LACK OF PRICING TRANSPARENCY

Obtaining a price can be difficult and time consuming. Plan sponsors often don't know the price at which they should execute an annuity transaction.

MERCER PENSION RISK EXCHANGE™

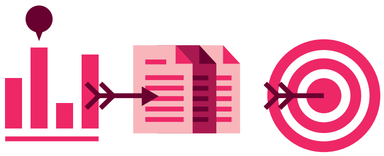
WHAT IS IT?

- Access to regular pricing from insurers in order to asses the true market price of a deal.
- Helps sponsors execute a deal in a more competitive price environment and in a shorter time frame than is currently possible.
- Allows plan sponsors to prepare data and documents in advance, enabling them to proceed quickly when the time is right.
- Online and mobile-optimized solution that gives sponsors and trustees access to valuable information anytime and anywhere.

WHAT IS IT FOR?

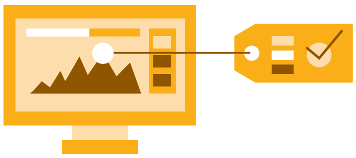
- PLAN TERMINATIONS
- BUYOUTS
- BUY-INS

HOW DOES IT WORK?



READINESS

Mercer's systematic and disciplined approach finalizes all data and documents well in advance of the transaction, enabling swift execution. We advise on target price levels and plan metrics that should be monitored, and we establish triggers upon which to act.



DYNAMIC MONITORING

Our pricing platform allows insurers to submit regular bids for specific plans. This enables sponsors to continuously monitor their unique price and specific plan metrics and to execute when market conditions are optimal.

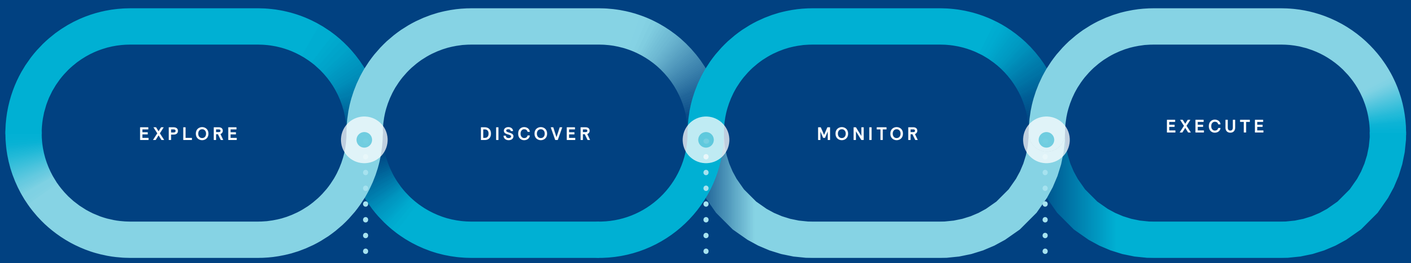
EXECUTION SUPPORT

Provides fiduciary training and insurer due diligence to support the final auction, insurer selection, and transition of responsibilities to the insurer, all while enhancing participant security.

MERCER PENSION RISK EXCHANGE™ SUPPORTS YOU THROUGH EACH STEP OF THE ANNUITY PLACEMENT PROCESS

MERCER PENSION RISK EXCHANGE PROCESS

There are four components of the process. We work with clients to understand the services that are most applicable to their current situation, and timeline to execute a transaction. Our approach provides increasing financial certainty as a client moves through the purchase process.



EXPLORE

- Understand market appetite and competitiveness
- Assess trends over time
- Determine timing / strategy to proceed with a transaction

DISCOVER

- Prepare insurer RFP and plan data
- Gather preliminary annuity quotes from insurers
- Establish financial metrics to monitor
- Start fiduciary education

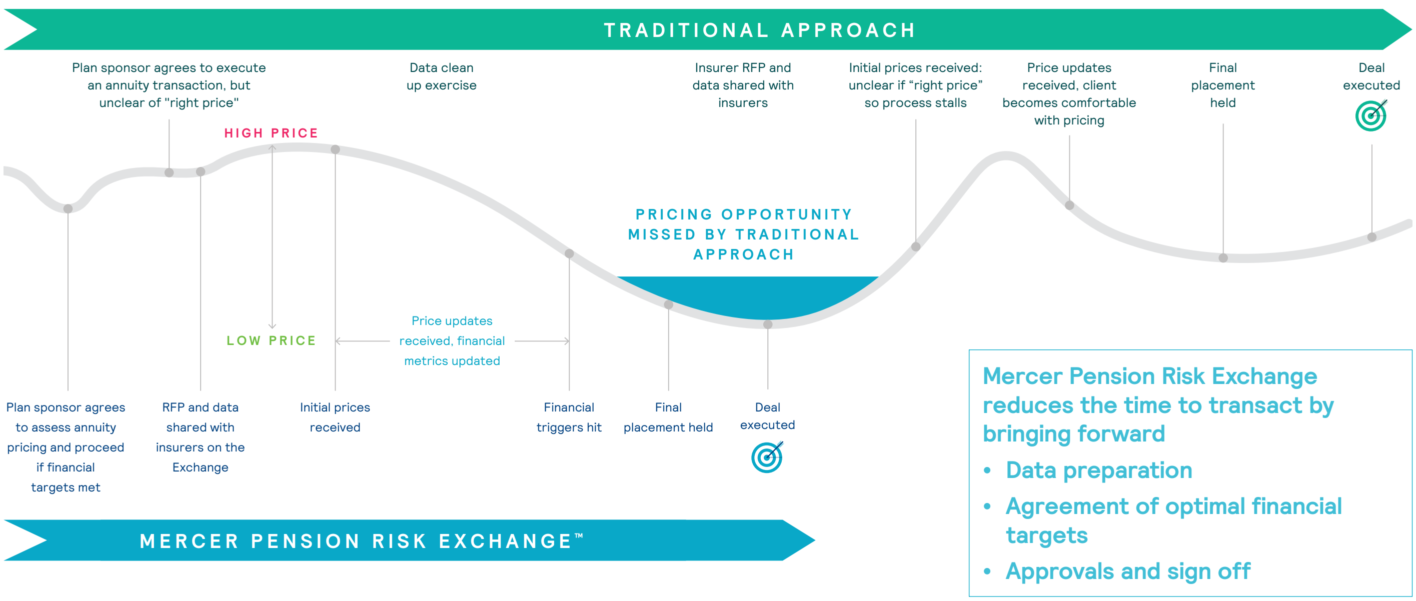
MONITOR

- Monitor annuity pricing against financial metrics
- Complete fiduciary education and insurer due diligence

EXECUTE

- Hold final placement auction
- Select insurer and transfer premium
- Commence post deal transition

TIMELINE



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