# Proposed changes to RPI

## What it means for DB pension schemes

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The UK Statistics Authority has proposed changing the way that the Retail Prices Index (RPI) is calculated. Specifically, it has said that the calculation methodology should be aligned with the Consumer Prices Index including owner occupiers' housing costs (CPIH). This may sound like the kind of arcane, technical discussion that excites only actuaries and statisticians, but it could have seismic implications for all UK defined benefit pension schemes.

Whilst reforming the RPI has been discussed several times before, the Treasury has confirmed that it will launch a consultation on this proposed change on 11 March 2020. The consultation will run for a six-week period, closing on 22 April 2020.

The consultation will focus on whether the change should be implemented with effect from 2025, or whether it should happen from 2030. In addition to there being uncertainty around when the change will take place (or indeed if it will), it is also unclear at this stage how different stakeholders, such as holders of index-linked gilts, will be affected.

However, pension schemes should prepare, as many could find that this change significantly impacts their funding position. For some, deficits that have already been dealt with could reappear. For others, deficits could simply disappear overnight. How your scheme might be affected, and what actions you should therefore be prepared to take, will depend on the structure of your benefits and your investment strategy, as well as whether and when these changes actually take place and how they are implemented.

All pension trustees need to be familiar with this issue, understand what it means for their scheme, and prepare accordingly.

This issue is complex, and will permeate many aspects of running a pension scheme. This paper is designed to simplify the matter, but further help is available by getting in touch with Barnett Waddingham. We have the expertise in all the areas you'll need.


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# The proposed change

## RPI – a legacy statistic

The Office for National Statistics (ONS) currently produces three main measures of inflation: RPI, the Consumer Prices Index (CPI) and CPIH. RPI is the longest standing of these measures but the Office of National Statistics prefers to use CPIH as the main measure of inflation.

The origins of the current proposal to amend RPI can be traced back to a 2012 consultation on the options to improve RPI. Following this consultation, the Office for Statistics Regulation declared that RPI did not meet international standards, which led to a downgrading of RPI from a 'national statistic' to a 'legacy statistic'.

> However, continued use of RPI as a measure of inflation remains widespread.

For example, index-linked gilts issued by the Treasury continue to reference RPI, and it continues to be used to determine annual increases in rail fares, amongst other things.

## The flaws in RPI

Broadly speaking, the main measures of inflation are calculated by measuring the change in price of a 'shopping basket' of goods and services, although the items in the basket vary slightly between the different measures.

Critics of RPI usually point to the statistical method used to calculate the average change in price of the items in the basket, which differs to the approach used to calculate CPI and CPIH. Specifically, RPI uses the 'Carli' formula and this has led to RPI seeing higher rates of inflation than CPI or CPIH (particularly following the introduction of clothing into the RPI index in 2010).

### Key insight

**Since 2010, ONS data has shown that RPI has been around 1% pa higher than CPIH.**



## RPI revisited and the Consultation Process

The debate on the continued appropriateness of RPI as a measure of inflation resurfaced in January 2019 with the publication of the House of Lords ("HoL") Economic Affairs Committee's report on this issue. The Committee noted that having multiple measures of inflation was confusing for the public and recommended that the government should use a single measure of inflation for all purposes.

In response to this report, in March 2019, the UK Statistics Authority proposed that RPI be aligned with CPIH and, as required by legislation, sought the consent of the government to introduce this change prior to 2030. The Chancellor responded to this request on 4 September 2019 to state that he was unwilling to introduce such a change any earlier than 2025.

> He then proposed to consult publicly on when between 2025 and 2030 the change should be introduced.

This consultation will take place between 11 March and 22 April 2020.

**2013** – RPI loses status as a national statistic.

**Jan 2018** – HoL Economic Affairs Committee raises RPI as topic in annual evidence session with BoE.

**Mid 2018** – Public evidence sessions lead to launch of full inquiry.

**Jan 2019** – HoL publish report and recommend that RPI should be corrected and that there should be agreement on single measure in next 5 years. Until then CPI should be used.

**Mar 2019** – The UK Statistics Authority (UKSA) writes to the Chancellor of the Exchequer to propose that RPI is set equal to CPIH.

**Sept 2019** – The Chancellor of the Exchequer responds to both the UKSA and HoL Economic Affairs Committee to say that he will not consider any change to RPI before **February 2025**. The Chancellor also states that the government will continue to issue gilts linked to RPI.

**Mar 2020** – The government will launch a a public consultation on 11 March 2020 on whether the change to RPI should be made at a date other than **2030** and, if so, when between **2025** and **2030**.

**Apr 2020** – Consultation closes on 22 April and results due by July 2020.

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## Impact on future RPI expectations

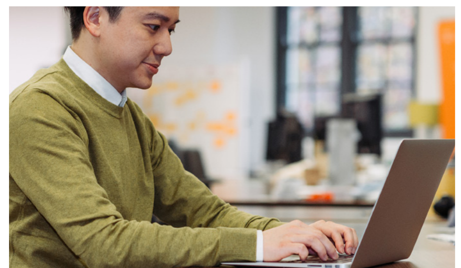
The proposal is likely to reduce future RPI increases as CPIH inflation is generally expected to be lower, although any effect will vary from year to year.

## Impact on pension scheme liabilities

Pension schemes have payment obligations stretching many years into the future. Most of these benefits are index-linked, either to RPI or CPI. A change in calculation methodology, resulting in a reduction in future RPI, will mean that benefits that are linked to RPI inflation will be lower than they otherwise would have been. This is illustrated by the chart (page 7) which shows how the proposal may reduce future cashflows for a 'typical' pension scheme that has fully RPI-linked benefits. In turn, this will reduce the value actuaries place on RPI-linked liabilities.

There is no similar impact on liabilities that are not RPI-linked. Therefore, the impact of the proposal on a given pension scheme's liability value will primarily depend on the proportion of pensions that increase in line with RPI inflation.

The table on page 8 illustrates how the impact may vary depending on the levels of RPI-linked benefits for a 'typical' pension scheme[1].



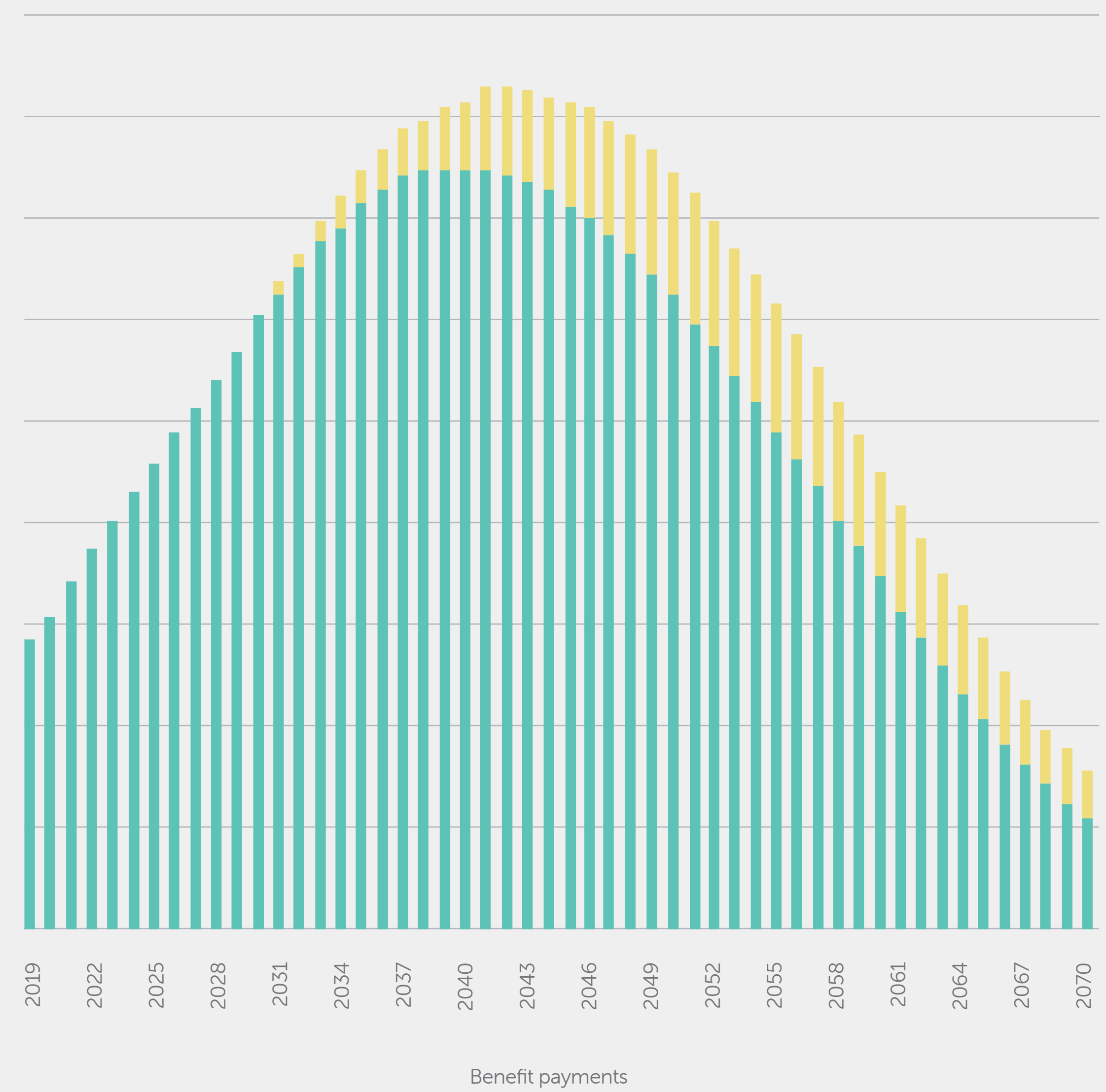
### Key insight

**The Bank of England ("BoE") has suggested that increases in CPIH would likely be around 1% pa lower than RPI and this is consistent with our research.**

The proposal is likely to reduce future RPI increases as CPIH inflation is generally expected to be lower.

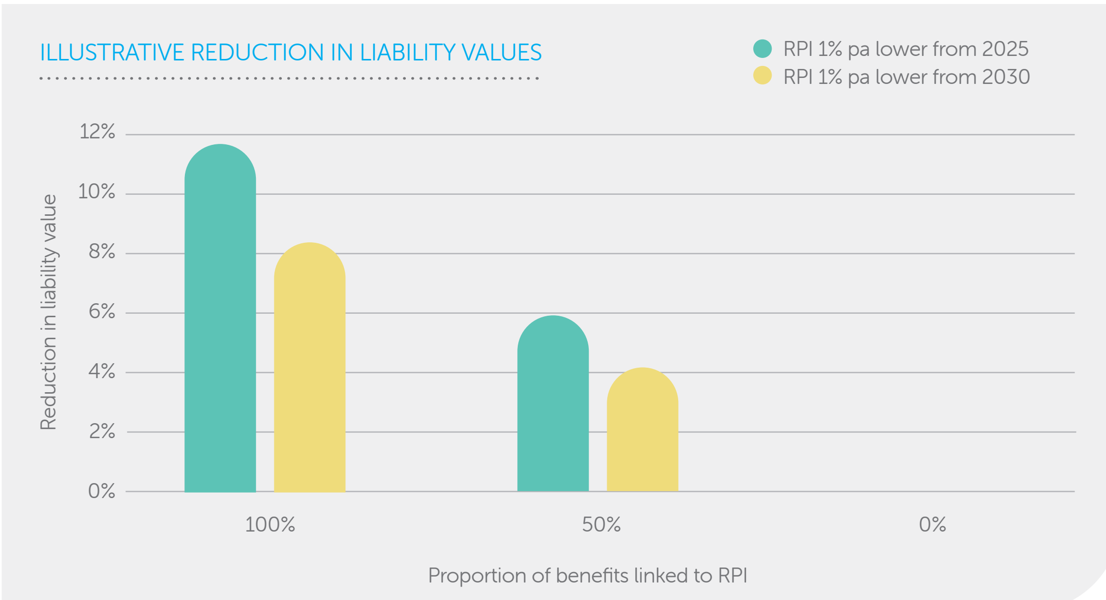
[1] For this purpose we define a typical scheme as one that has a liability duration of 20 years.

ILLUSTRATIVE IMPACT ON FUTURE RPI-LINKED BENEFITS (RPI 1% PA LOWER FROM 2030)




Benefit payments
Possible reduction in benefit payments

Source: Barnett Waddingham analysis




Source: Barnett Waddingham analysis

### Key insight

**Schemes with RPI-linked liabilities may see a significant reduction in their liabilities - possibly by 10% or more.**

# Impact on pension scheme assets

The income from index-linked gilts is based on the RPI rate and the value of an index-linked gilt will be determined, in part, by investors' expectations of future RPI inflation. If this falls, then the value of index-linked gilts will fall too, all else being equal. However, as discussed below, it is not clear to what extent the market has yet priced in the impact of the proposed changes to RPI.

## Will investors be compensated?

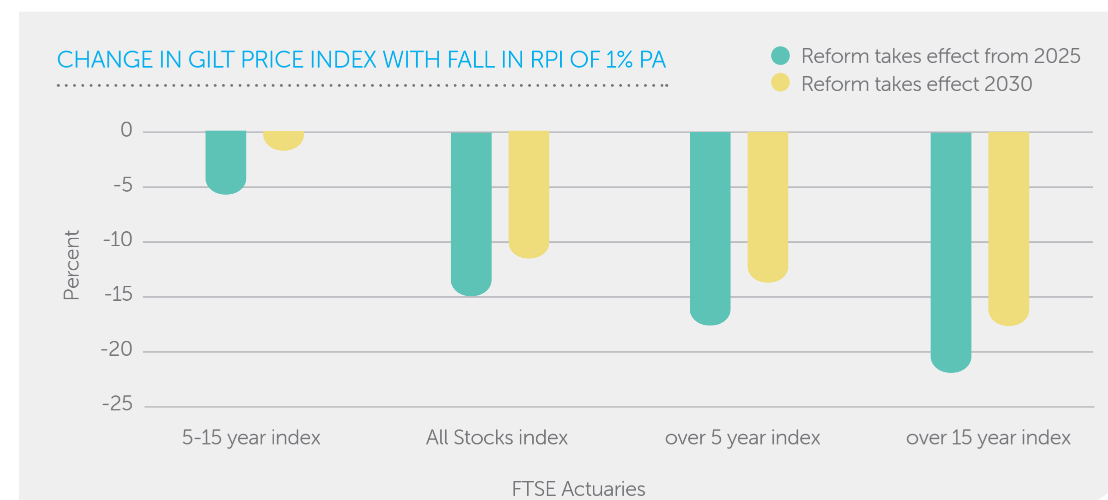
It is possible that holders of these assets may demand they are compensated for any losses caused by the RPI changes. Asset values may therefore reflect an expectation of some compensation.

This section therefore discusses in further depth what the impact could be with and without compensation.

## Potential impact assuming no compensation is due

If no compensation is paid to investors, then the impact on market prices of gilts, swaps and LDI strategies could be significant.

The scenario analysis below shows the relative impact on selected long-dated index-linked gilt indices if the proposal were to be adopted from 2025 or 2030 and RPI inflation expectations fall by 1% pa.




Source: FTSE and Barnett Waddingham analysis

The impact on leveraged LDI funds could be even more significant. We estimate that a typical two-and-a-half-times-leveraged real LDI fund could see a fall in value of around 40%. More highly-leveraged LDI funds could see larger falls in value.

### Key insight

**If the proposal is implemented without adequate compensation, there is a significant risk of financial losses for investors exposed to inflation risks in these markets.**

## The case for compensation

As noted above, investors could see a loss in value of over 20% if the change is implemented without any compensation. They may see it as unfair that an arm of government could effectively wipe-out a substantial portion of value with the stroke of a pen. We believe that the Treasury could have a windfall profit of almost £100bn if the reform goes ahead without any sort of compensation.

We therefore expect there will be calls for compensation from potentially affected investors. In fact, in 2012 when changes to the RPI methodology were last mooted, investors responded with comments like "tantamount to an event of default" and it would "ruin" the market[2]. The claims for compensation are likely to be loudest in the gilt market. Pensioner lobby groups may also argue that pensioners should not lose out.

We have discussed this with many of the leading investment managers in the index-linked gilt markets. Whilst there are naturally a range of views, it is clear to us that many major market participants expect there to be some form of investor compensation.

The UK Statistics Authority operates independently from government, and would be acting within its powers to amend RPI from 2030, so any claims for compensation may well fall on deaf ears.

[2] https://www.ft.com/content/8ef07ff0-ab2c-11e1-b875-00144feabdc0



## How might compensation work?

If the government did decide to compensate gilt holders, any compensation would need to be both equitable and practical. It needs to put investors back in a broadly equivalent position, but without adding administrative complexity.

> Several possibilities have been mooted in our discussions with market participants. For example, the Treasury could increase the coupon on affected index-linked gilts, or could even re-strike RPI to be equal to CPIH plus a fixed spread.

These examples highlight that different methods of compensation could impact investors in different ways. Increasing coupons on affected index-linked gilts would be a 'gilt market only' solution, whilst restriking RPI to be equal to CPIH plus a fixed spread would be a 'whole market' solution.

Whilst the gilt and inflation swap markets have both reacted in broadly similar ways to the proposed change, it is not clear that they would each be compensated in a consistent manner. Some swap contracts have clauses that make reference to specific index-linked gilts. If the terms of those gilts are changed, then the terms of that swap would mirror the change – but this is by no means true of all swap contracts.

### Key insight

**It is certainly not clear if there will be compensation, but, even if there is, it may not treat all affected parties equally.**

### Key insight

**It appears that compensation is even less likely in swap markets than gilt markets. Consider how you access your inflation hedging.**

# Impact on scheme funding

## How will your scheme be affected?

The proposal may have a significant impact on scheme funding levels.

However, the impact will vary from scheme to scheme, depending heavily on the proportion of liabilities that are linked to RPI inflation as well as the level of hedging assets that they hold. In addition, the unknown factors (i.e. whether and when the change will be implemented, and whether any compensation is paid) mean that the potential impact on scheme funding levels will be uncertain.

To date, pension schemes have been forced to 'hedge' the index-linked pensions using RPI-linked assets because CPI linked assets have not been widely available. however, this presents a mismatch for schemes with CPI-linked pensions.

## Scenario analysis – change from 2030, no compensation

The table below illustrates the potential funding impact for a 'typical' but broadly fully-funded pension scheme if the proposal goes ahead from 2030 (with no compensation paid to investors). The potential impact on the funding level is shown for a range of benefit structures and asset strategies, assuming that RPI is 1% pa lower as a result. The impact will vary from scheme to scheme.

SCENARIO 1: RPI FALLS 1% PA FROM 2030, NO COMPENSATION PAID – FUNDING IMPACT

| | | Proportion of liabilities hedged with RPI assets | | |
|---|---|---|---|---|
| | | 100% | 50% | 0% |
| Proportion of liabilities linked to RPI (not CPI linked) | 100% | 0% | 5% | 9% |
| | 50% | -4% | 0% | 4% |
| | 0% | -9% | -4% | 0% |

Source: Barnett Waddingham analysis

The analysis on the previous page highlights how the proposal has the potential to impact different pension schemes in different ways:

- Schemes with a high proportion of RPI-linked benefits and a low level of RPI-linked assets may see a significant improvement in their funding level.
- Schemes that have inflation hedging strategies covering their RPI-linked risks, but not their CPI-linked risks, may be broadly immune from the change.
- Schemes that are hedging CPI-linked benefits with RPI-linked assets could see a **material deterioration** in funding level.

## Other scenarios

Again, the impact will vary from scheme to scheme. Appendix 1 includes analysis of a range of other similar scenarios, the results of which show:

- If RPI were amended from 2025 rather than 2030, then the impact on scheme funding would be slightly more pronounced; and
- If full compensation is paid to RPI-linked asset holders then the proposal would only result in 'winners' from a scheme funding perspective.

Schemes that are hedging CPI-linked benefits with RPI-linked assets could see a material deterioration in funding level.

# How have the markets reacted so far?

## Initial impact on gilts

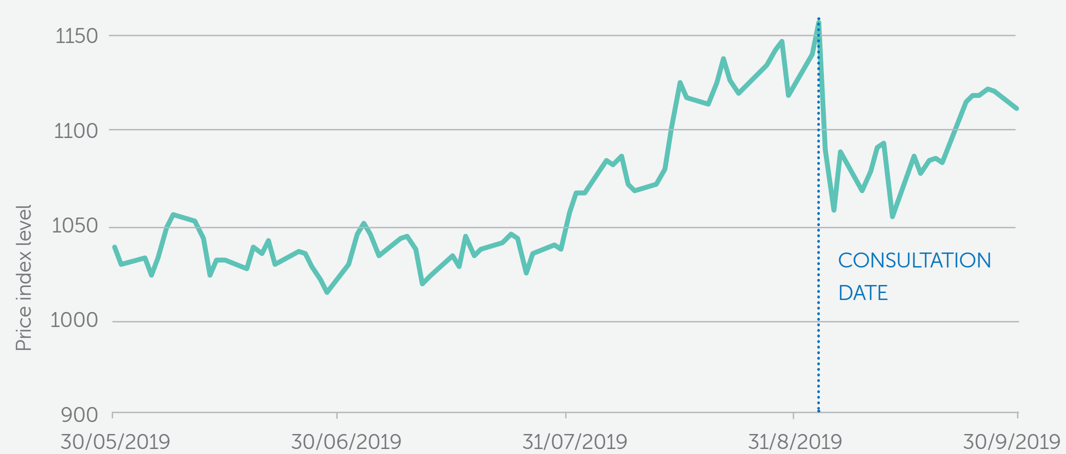
On the day the consultation was announced, markets reacted significantly. Prices of long-dated index-linked gilts fell by almost 10%, reflecting a drop in expected RPI inflation.

This is a substantial move in the context of recent market volatility, but does not fully reflect the potential impact discussed above.

A key question therefore is to what extent the market was already anticipating the potential methodology change. The first chart on page 15 shows that expectations of RPI inflation beyond 10 years had already been trending downwards for several months before the announcement. This could be explained as the market progressively pricing in an expectation of the RPI reform.

FTSE ACTUARIES ILGS OVER 15 YEAR PRICE INDEX

Source: FTSE

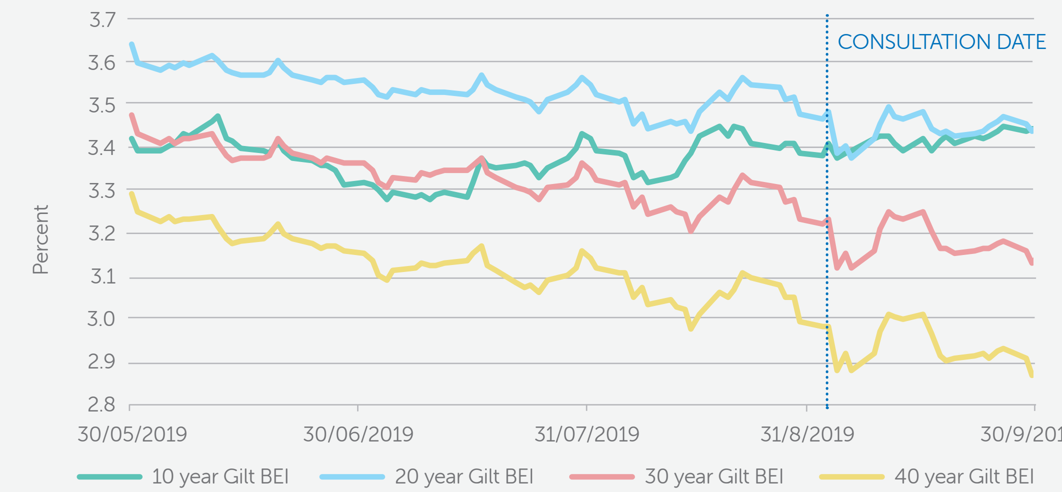



## Initial impact on swaps

Some investors manage RPI inflation risk through the swap markets. The chart at the botton of the next page shows that the swap markets also reacted sharply, with moves of around 0.10% to 0.15% pa in swap rates for terms of twenty years or more.

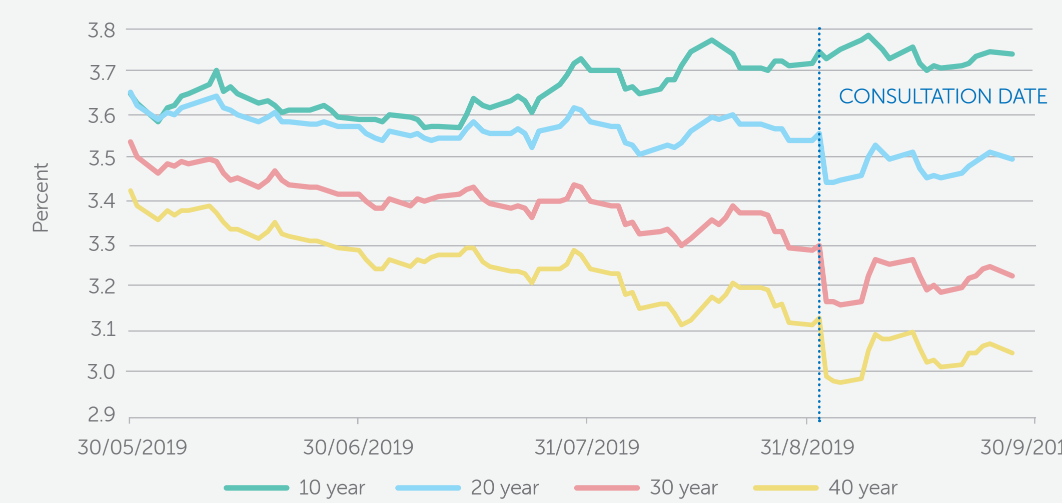
BANK OF ENGLAND GILT BREAK-EVEN INFLATION (BEI) CURVES

Source: Bank of England




MERRILL LYNCH SWAP CURVES

Source: Merrill Lynch



## Why did we not see a bigger reaction from the market?

The initial reaction of the markets to the proposal has been more muted than expected, perhaps due to a number of possible reasons:

1. **The market believes there is a significant likelihood the proposal will not be implemented**

   We do not find this to be a compelling argument. Whilst the UK Statistics Authority could change its mind, this seems unlikely.

2. **The market had already partially priced in RPI changes before the consultation announcement**

   Calls for RPI to be changed are not new and so the market may have been pricing in a change before the consultation announcement.

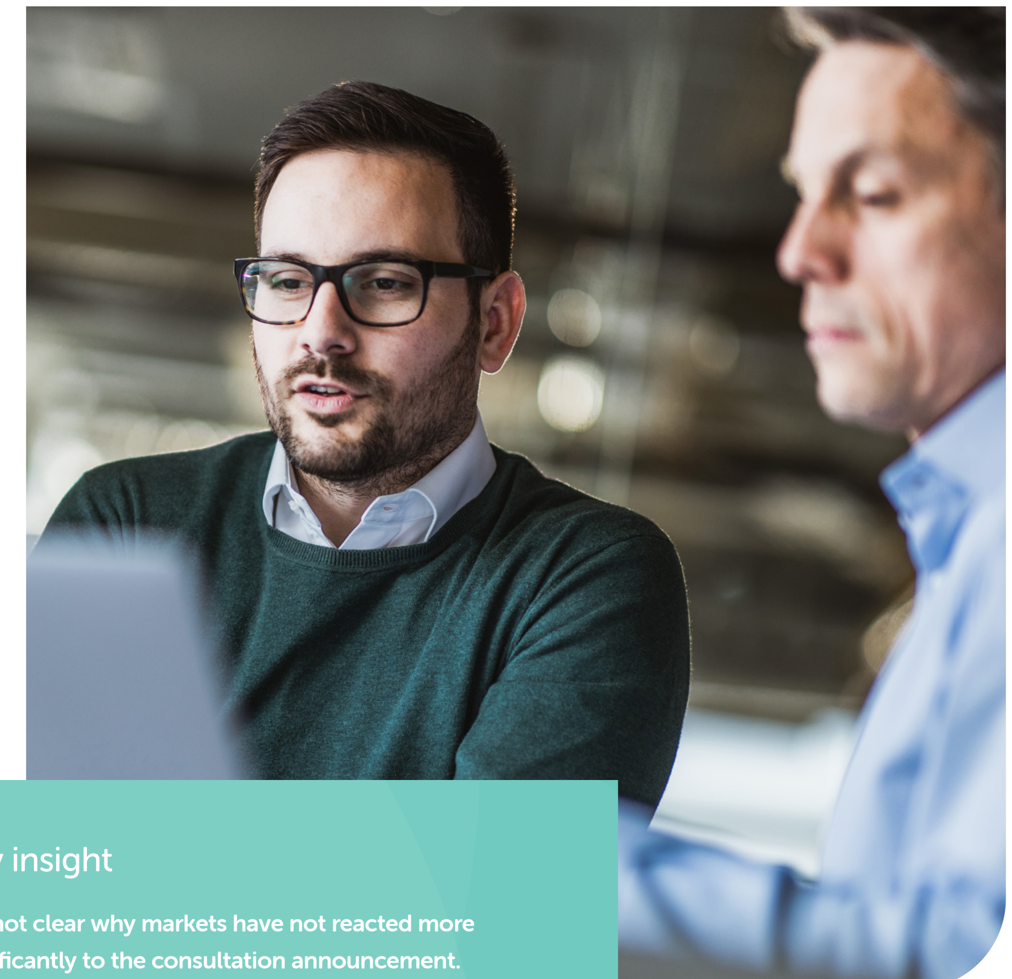
3. **RPI inflation-linked assets are largely held by pension schemes who have limited alternative hedging options and are often slower to react than some other investors**

   Pension schemes are amongst the main purchasers of index-linked gilts, primarily holding them as a form of protection against movements in inflation. As there are limited other ways to hedge inflation risks, there may be a degree of price-insensitivity at play.

   Compared with other investors, pension schemes can sometimes take longer to react to news. It may be the case that some pension schemes are still in the process of implementing investment decisions made based on market conditions before the announcement. This may mean that market prices for RPI-linked assets are being artificially supported.

4. **The market considers that investors will be substantially compensated**

   Anecdotal evidence, based on our consultations with leading asset managers and brokers, reveals a common belief that compensation would be likely if the proposal were adopted. However, there is no suggestion yet from the Treasury that compensation will be forthcoming. The government may take the view that because the change will not happen until 2025 at the earliest, this gives investors sufficient warning.



### Key insight

**It is not clear why markets have not reacted more significantly to the consultation announcement. Trustees may wish to discuss what this means for their investment holdings with their advisers.**

# Ongoing considerations

## The challenge of setting assumptions

Setting actuarial assumptions about future inflation rates has always been somewhat subjective.

Many actuaries set inflation assumptions by reference to gilt markets, often comparing the yield on fixed interest gilts with index-linked gilts to derive an estimate of future RPI inflation. Where relevant, and in the absence of a liquid CPI market, CPI inflation assumptions are then often set by subtracting a fixed margin from RPI assumptions. Some actuaries will adjust the market-implied rates to allow for an "inflation risk premium" (i.e. an adjustment to reflect a view that some investors are prepared to pay premium prices to remove inflation risk).

The current uncertainty around the RPI changes makes this even more challenging than usual. If index-linked gilt market participants are expecting compensation, or if investors are prepared to pay a higher inflation risk premium to reflect the heightened uncertainty, then this will be reflected in the prices of these assets.

> However, this means assumptions derived in traditional ways will now reflect the expected value of the compensation and any additional inflation premium.

This could lead to assumptions for future RPI-linked pension benefits being overstated. This would be prudent for funding purposes but may not be an appropriate method to set assumptions for all purposes.

Further, to the extent that the market is pricing in the change going ahead without compensation, then CPI assumptions will also be affected. This is because the proposal would effectively narrow the gap between RPI and CPI. It may therefore be appropriate to review CPI assumptions too.

Actuarial assumptions, and the processes used to set them, may need to be reviewed. Although there is no concrete way to disaggregate the effect of expected compensation and other factors from gilt prices. To do so would require definitive views on whether this change will take place and if/how investors will be compensated. There is no such crystal ball, meaning schemes may need contingency plans to revisit strategic decisions once the issue is resolved.

### Key insight

**Trustees should take additional care when making financial decisions based on actuarial estimates in the intervening period.**

## Transfer Values and Pension Increase Exchanges

Trustees need to be comfortable that member options calculated using an assumption about future inflation remain appropriate. For most schemes, the most pressing member option to consider will be Cash Equivalent Transfer Values (CETVs).

In particular, for schemes with a high proportion of RPI-linked benefits, there is a risk that CETVs could be materially overstated under existing methodologies, possibly by as much as 10% to 20%, relative to a best estimate view of future RPI inflation once the changes take effect. In such cases, if CETV assumptions are not revised, there is a risk that transferring members may cause a funding strain.

> Trustees concerned by this risk should consider whether to revise the assumptions used for CETVs immediately, to reflect their revised expectations for future RPI inflation.

Alternatively, trustees may take the pragmatic view they are comfortable to continue quoting CETVs under the current approach because:

- The scheme is well-hedged to RPI inflation, with the impact on the expected returns on inflation hedging assets assumed to be offset by the change in liability values;
- Only a small proportion of the benefits are linked to RPI inflation;
- The number of actual transfers out in the scheme, and hence the risk to funding, is relatively low; or
- There is a general desire to encourage members to transfer out, even at slightly above best estimate levels, due to the resulting reductions in risk.

Regardless of the approach adopted, the assumptions used for CETVs will need to be revisited when further information about future RPI is known and reflected in the markets. So it is important trustees continue to keep their CETV basis under close review, to ensure it remains robust.

Another option would be to put CETVs on hold for the time being, until there is more certainty around the proposals. This option is worthy of consideration for any planned one-off transfer value exercises.

The situation is different for schemes with predominately CPI-linked benefits. Existing assumption approaches may result in a CPI assumption that is materially understated. These schemes risk quoting transfer values that don't at least meet the legal requirement representing the "best estimate" of the cost of the benefits.

Schemes with a high proportion of CPI-linked benefits may have little choice, but to immediately revise their CETV assumptions.

There are similar considerations for other member options. Other actuarial factors may be less sensitive to the choice of future inflation assumption or are not set using best estimate or market-related assumptions. One notable exception is Pension Increase Exchange (PIE) options, where the choice of inflation assumption is key in determining the uplift to members' pensions.

### Key insight

**Depending on benefit structure, there is a risk that a scheme's CETVs understate or overstate the best estimate of the cost of paying the benefit. Trustees should consider whether their own CETV basis should be reviewed.**

### Key insight

**Any planned PIE exercises may have to be reconsidered or put on hold.**

## Ongoing valuations and using funding trackers

Care needs to be taken if making any funding-related decisions in the current environment because similar considerations apply to placing a value on schemes' overall liabilities.

In particular, for those schemes currently undertaking a funding valuation, trustees should consider whether calculations make allowance for the RPI proposal. It may be appropriate for trustees and sponsors to take a flexible approach to scheme funding. For example, sponsor contributions could be agreed that vary in response to changes in the funding position. This will, in turn, reduce the risks of over- or under-funding the scheme.

Particular care needs to be taken if trustees are relying on an automated funding tracker to make decisions, for example to determine when to make pre-agreed investment switches. If the methodology underlying the funding tracker calculations has not been revised to reflect the proposals, then automated calculations may misstate the funding position. This highlights the value in speaking with your Scheme Actuary before making any material decisions based on the results of a funding tracker.

### Key insight

**Whilst care always needs to be taken when setting actuarial assumptions, the uncertainty around the future of RPI makes this especially pertinent now. Flexible approaches may be appropriate.**

It may be appropriate for trustees and sponsors to revisit funding solutions after the consultation.

### Key insight

**Automated funding trackers may misstate the current position. Take extra care when making decisions based on them.**

## LDI portfolio construction

Most schemes providing inflation-linked pensions do so subject to an annual cap (e.g. 5% pa) and subject to a floor (e.g. 0% pa). When inflation is between the floor and the cap, the pension increase can be considered as fully inflation-linked, but when inflation is either above the cap, or below the floor, it becomes fixed in nature.

> This means the pension increase cannot be matched precisely with index-linked gilts or standard inflation swaps in all environments.

Most schemes that hedge inflation risk in an LDI portfolio use a mix of index-linked instruments and fixed interest investments, with the appropriate blend of investments determined by an actuarial model - a sensible and pragmatic approach, but it's not perfect.

If expectations of future RPI inflation were to change materially, then the appropriate mix of index-linked instruments and fixed interest investments could change materially. Carefully designed hedging portfolios would lose accuracy, potentially quite significantly.

We always recommend that the design of an LDI portfolio should be reviewed periodically, and always after any significant change in market conditions.

### Key insight

**Schemes that thought they were well-hedged for inflation risk may find that the quality of their hedges deteriorates significantly after the change. Hedge design may need to be reviewed.**

## LDI de-leveraging

Many schemes use leveraged LDI funds to hedge pension liabilities. These funds generally incorporate "re-leveraging" triggers (where leverage falls beyond a pre-defined minimum level) and "de-leveraging" triggers (leverage rises above a pre-defined maximum level). Over recent years long-term yields have been falling and therefore many pooled LDI funds have hit their "re-leveraging" triggers several times, resulting in excess cash being returned to investors.

> If the proposals goes ahead, long-term index-linked gilt yields (and equivalent swap rates) could rise materially. This may cause some pooled LDI funds to hit their "de-leveraging" triggers, requiring investors to pay-in cash in order to maintain their hedging positions.

The mechanics of these processes vary from manager to manager and from fund to fund, but in general investors will be given a relatively short notice period to raise the required cash and transfer it to their LDI manager.

Some schemes hold a "collateral pool" with their LDI manager (often in cash or bonds) so the LDI manager can disinvest as necessary to meet such cash calls. But some trustees may need to move quickly to raise the required cash, or accept a reduction in the scale of their liability hedge.

### Key insight

**Trustees may need to move quickly to raise cash to pay into their LDI strategies. Planning ahead for this would be prudent. You may wish to consider putting in place an automated process to ensure this happens smoothly.**

## Market-based de-risking triggers

Some schemes have inflation hedging programmes in place, under which the LDI manager is incrementally adding inflation hedging whenever the market-implied inflation rate is below a pre-determined level, or the real yield is above a pre-determined level.

Such schemes should consider if this remains appropriate, or whether the target level should be amended. One manager suggested that the "pent-up" demand for index-linked gilts from pension schemes with such hedging programmes could be one reason why the market appears to have not yet fully reacted to the proposals.

Also, some schemes have triggers based on the relative performance of growth assets compared to index-linked gilts, used as a proxy for the scheme's liabilities. Whilst this persists, there is uncertainty whether index-linked gilts do actually represent a reasonable proxy for the liabilities.

### Key insight

**Additional care should be taken with any market-based hedging trigger mechanisms whilst this uncertainty persists. Depending on the structure of the mechanism, it may be appropriate to suspend or amend them.**

## Impact on buyout pricing

Schemes with RPI-linked benefits may expect buyout prices to fall in due course, to reflect the lower expected future benefit payments. However, schemes already close to buyout are likely to be fully matching their RPI liabilities with RPI-linked assets, and so their buyout timeframe may be unchanged as a result of the corresponding expected fall in asset values.

However, to the extent the market is pricing-in some degree of expected compensation, this is also likely to be (indirectly) reflected in the insurance premium. Depending on the assets to be used to fund the buy-in, there may be some merit in waiting to transact because if compensation is awarded to gilt holders this could improve the funding position.

Given that CPI is unaffected by the proposal, it may be expected that buyout pricing remains unchanged for these benefits. This is likely to be true in the short-term but may not be once the consultation is resolved.

In particular, a key driver of buyout pricing is the availability of assets providing a good match to the benefits.

Currently, CPI-linked assets are rare and in demand. As such, many insurers hold some RPI-linked assets, such as index-linked gilts or RPI inflation swaps, to match CPI-linked liabilities.

However, these RPI-linked investments provide an imperfect match for CPI benefits. To counter this, insurers hold a reserve for this extra risk, the cost of which is passed on to customers through prices. Under the proposed RPI changes, the differences between RPI and CPI calculations would be reduced, and insurers may have to hold less capital against this risk. Prices of CPI-linked annuities may therefore come down over time – although they would not be as significantly affected as RPI liabilities.

### Key insight

**The immediate affordability of buyout for schemes with RPI-linked liabilities and RPI-linked assets is unlikely to be materially impacted, but could improve if compensation is paid to gilt holders.**

Both CPI and RPI may become cheaper to secure with an insurer.

### Key insight

**If the changes takes place, then buyout prices for schemes with predominantly CPI-linked benefits may reduce slightly – a welcome respite for schemes in this position, who otherwise may stand to lose out as a result of the proposal.**

# What immediate actions can be taken?

Here are some practical steps that pension schemes can take to address this issue. Not all steps will be applicable – or available – for all schemes, but this checklist will help with consideration of all the issues.

### 1. Analyse your own inflation risks

Understanding how much of your inflation risk arises from CPI-linked benefits and RPI-linked benefits will help quantify your exposure to the change.

Importantly, you should also consider the "shape" of the RPI and CPI exposure. Many schemes will find their shorter-term inflation exposure is heavily CPI-linked, whereas their longer-term inflation exposure is more RPI-linked. This is because many schemes provide CPI-linked increases in deferment and RPI-linked increases in payment.

> As the scheme matures, the inflation exposure becomes less CPI-linked.

### 2. Review any inflation-related triggers

If you have any de-risking (or re-risking triggers) that are linked, either explicitly or implicitly, to RPI inflation, reconsider whether the trigger level and mechanism remain appropriate.

### 3. Consider changing the inflation hedge ratio

Schemes with high inflation hedge ratios and substantial exposure to the gap between RPI and CPI may consider reducing their inflation hedge ratio. Whilst this would increase the scheme's exposure to general inflation risk, it could reduce the exposure to the gap between RPI and CPI, and result in a lower overall risk level.

### 4. Consider whether to access the CPI market directly

Schemes with significant exposure to a potential narrowing of the RPI-CPI gap may wish to convert some of their RPI inflation exposure to CPI. This is not practical for smaller schemes due to the lack of pooled vehicles. However, larger schemes, particularly those with segregated LDI mandates, may be able to instruct their managers to access the CPI swap market in an opportunistic manner.

### 5. Review your process for raising cash to support your LDI strategy

Schemes with leveraged LDI strategies may need to raise cash quickly to support their hedging strategies. Trustees should consider whether their processes to make such a switch are suitable, and that the investment switches can be made efficiently and promptly within required timescales.

### 6. Consider the suitability of your transfer value basis and other actuarial factors

Depending on the benefit structure, there is a risk that schemes' CETV bases either understate or overstate the best estimate of the cost of paying the benefit.

Trustees should consider whether their own CETV basis should be reviewed.

### 7. Consider the suitability of your scheme funding basis

The assumptions used for scheme funding should also be reviewed in due course to ensure they are appropriate. Schemes that urgently need to agree an actuarial valuation may put in place contingency plans taking into account possible changes in RPI inflation expectations.

### 8. Assess any impact on the employer covenant

If the sponsoring employer's financial strength is likely to be affected by the proposal (e.g. if the employer has RPI-linked income), then consider any knock-on effects for scheme funding and investment strategy.

### 9. Input into the consultation

Direct holders of RPI-linked assets should consider constructive input into the RPI consultation, articulating whether they would lose out from the changes.

> Trustees should consider whether their CETV basis should be reviewed.

# Appendix 1

## Impact on scheme funding - scenario analysis

The following tables show the impact on scheme funding levels of a 1% pa reduction in the future inflation measure from either 2025 or 2030, as well as whether compensation is paid or not to asset holders. For this purpose, it is assumed the scheme was 100% funded at the outset and that it has a fairly 'typical' cashflow profile with a duration of around 20 years.

We assume the scheme is able to benefit from compensation either through being a direct gilt holder or because it is passed through to their hedging assets, but that members with RPI-linked pensions will ultimately see their benefits reduced.

### SCENARIO 1: RPI FALLS 1% PA FROM 2030, NO COMPENSATION PAID

| | | Proportion of liabilities hedged with RPI assets | | |
|---|---|---|---|---|
| | | 100% | 50% | 0% |
| Proportion of liabilities linked to RPI (not CPI linked) | 100% | 0% | 5% | 9% |
| | 50% | -4% | 0% | 4% |
| | 0% | -9% | -4% | 0% |

### SCENARIO 2: RPI FALLS 1% PA FROM 2025, NO COMPENSATION PAID

| | | Proportion of liabilities hedged with RPI assets | | |
|---|---|---|---|---|
| | | 100% | 50% | 0% |
| Proportion of liabilities linked to RPI (not CPI linked) | 100% | 0% | 7% | 13% |
| | 50% | -6% | 0% | 6% |
| | 0% | -12% | -4% | 0% |

### SCENARIO 3: RPI FALLS 1% PA FROM 2030, FULL COMPENSATION PAID

| | | Proportion of liabilities hedged with RPI assets | | |
|---|---|---|---|---|
| | | 100% | 50% | 0% |
| Proportion of liabilities linked to RPI (not CPI linked) | 100% | 9% | 9% | 9% |
| | 50% | 4% | 4% | 4% |
| | 0% | 0% | 0% | 0% |

### SCENARIO 4: RPI FALLS 1% PA FROM 2025, FULL COMPENSATION PAID

| | | Proportion of liabilities hedged with RPI assets | | |
|---|---|---|---|---|
| | | 100% | 50% | 0% |
| Proportion of liabilities linked to RPI (not CPI linked) | 100% | 13% | 13% | 13% |
| | 50% | 6% | 6% | 6% |
| | 0% | 0% | 0% | 0% |

Source: Barnett Waddingham analysis

# Appendix 2

## The development of a CPI market

Pension schemes typically use RPI-linked assets to hedge their CPI-linked liabilities due to the lack of availability of CPI-linked assets.

> Even if a scheme is well-hedged for general inflation risk, if RPI and CPI do not move in unison, this may have an impact on schemes' funding levels.

This risk could potentially be mitigated by switching some of the RPI hedging to CPI in order to better match liabilities.

However, this strategy is currently only available for larger schemes with access to a segregated LDI strategy. CPI supply is also very limited, and so any strategy to access the CPI market will necessarily be opportunistic.

### The CPI bond market

There is no UK Treasury CPI-linked bond issuance, and none is planned. There are CPI-linked corporate bonds, but there are only a few in issue. The market is especially sparse for long-dated terms. Also, the CPI-linkage in some of these bonds is subject to certain caps and floors that may not be suitable for all schemes.

As at March 2019, there was a total of only £2-3 billion of CPI-linked bonds in issuance (compared to an overall Sterling inflation-linked bond market of over £600 billion).

The table below lists current publicly issued CPI-linked bonds.

| Issuer | First Issued | Nominal | Maturity | Linkage |
|---|---|---|---|---|
| **United Utilities Water Finance Plc** | 2016 | £136m | 2031,2036,2048 and 2057 | CPI |
| **Community Finance Co** | 2015 | £315m | 2040 | CPI |
| **University of Cambridge** | 2018 | £394m | 2068 | CPI (floor at 0%, cap at 3%) |
| **Total** | | £845m | | |

Source: Insight and Bloomberg as at March 2019

There are also several privately-placed CPI-linked bonds. However, these do not trade and are often tightly held by insurance companies.

### The CPI swap market

There is a market in CPI-linked swaps, but it is small and relatively illiquid. However, it has grown relatively quickly over the last few years, and we expect it to continue to grow.

The table below gives an indication of current pricing in the CPI swaps market, expressed as a spread to RPI. Broadly, a figure of 60 bps, for example, illustrates it would be possible in the swaps market to exchange RPI-linked payments for payments linked to CPI+0.60% pa.

This shows that even following the announcement of the possible RPI reform, it is still possible to switch from RPI-based to CPI-based hedging, locking in a substantial gap between RPI and CPI beyond 2030.

We expect total annual CPI swap supply to be in the region of £10m to £15m of IE01[3], but this is highly uncertain.

We believe the CPI-linked swap market can be accessed opportunistically by larger Defined Benefit (DB) pension schemes to achieve an effective strategic hedge. It may be very difficult to fully hedge CPI this way, but partial hedges are entirely possible. However, this should not be viewed as a short-term tactical trade, as it could be expensive to unwind.

DIFFERENCE BETWEEN RPI AND CPI MARKET PRICE IN BPS

| Tenor | Pre announcement | Latest (31 October 2019) |
|---|---|---|
| **10 year** | 80+ | 70 - 80 |
| **15 year** | 75+ | 65 - 70 |
| **20 year** | 75+ | 60 - 65 |

Source: LGIM based on indicative counterparty pricing

[3] IE01 is a measure of the sensitivity of the value of an asset (or liability) to changes in inflation expectations. It shows the amount by which the value of the asset (or liability) would change for a 0.01% pa change in inflation expectations, all else being equal. To give this some context, an IE01 figure of £10m to £15m, would be a typical figure for the total liability-related inflation sensitivity of a single DB pension scheme in the c. £500m to £3bn range, depending on its benefit structure and maturity profile.

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Please contact your Barnett Waddingham consultant if you would like to discuss any of the above topics in more detail. Alternatively contact us via the following:

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This current document has been updated since 27 January 2020, per new information released by the Treasury on the 20 January 2020.