



Worcestershire  
County Council  
and  
Herefordshire  
District Council

**Waste Contract Indexation  
Methodology Review**

13 June 2018

—

[kpmg.co.uk](http://kpmg.co.uk)



# Disclaimer

This Draft Report (the "Report") has been prepared on the basis set out in the Scope of Work provided to us by Worcestershire County Council ("WCC") on 27<sup>th</sup> April 2018, and should be read in conjunction with the Scope of Work.

Nothing in this report constitutes a valuation or legal advice.

The information contained in the Report, including market data, has not been independently verified. No representation, warranty or undertaking, express or implied, is made as to, and no reliance should be placed on, the fairness, accuracy, completeness or correctness of the information, the opinions, or the estimates contained herein. The information, estimates and opinions contained in this presentation are provided as at the date of this Report, are subject to change without notice.

In preparing the Report, our primary source has been internal information and representations made to us by management of WCC. We do not accept responsibility for such information which remains the responsibility of management. Details of our principal sources are set out in the document and we have satisfied ourselves, so far as possible, that the information presented in the Report is consistent with other information which was made available to us in the course of our work in accordance with the Scope of Work. We have not, however, sought to establish the reliability of those sources by reference to other evidence. In addition, references to draft financial information relate to indicative information that has been prepared solely for illustrative purposes only.

This Report is for the benefit of WCC only and only to enable WCC to give preliminary considerations to the findings available based on the work carried out up to the date set out in the Report and for no other purpose.

This Report is not suitable to be relied upon by any party (other than WCC) wishing to acquire rights against KPMG LLP for any purpose or in any context. Any party other than WCC that obtains access to this Report or a copy (under the Freedom of Information Act 2000, the Freedom of Information (Scotland) Act 2002, through WCC's Publication Scheme or otherwise) and chooses to rely on this Report (or any part of it) does so at its own risk. To the fullest extent permitted by law, KPMG LLP does not assume any responsibility and will not accept any liability in respect of the Report to any party other than WCC.

Please note that this Report is confidential between WCC and KPMG LLP. It has been released to WCC on the basis it shall not be copied referred to or disclosed in whole or in part without our prior written consent. Any disclosure of this Report beyond what is permitted under the scope of work will prejudice substantially this firm's commercial interests. A request for our consent to any such wider disclosure may result in our agreement to these disclosure restrictions being lifted in part. If WCC receives a request for disclosure of the produce of our work under the Freedom of Information Act 2000 or the Freedom of Information (Scotland) Act 2002, having regard to these actionable disclosure restrictions WCC should let us know and should not make a disclosure in response to any such request without first consulting KPMG LLP and taking into account any representations that KPMG LLP might make.

The KPMG name and logo are registered trademarks or trademarks of KPMG International.

© 2018 KPMG LLP, a UK limited liability partnership, is a subsidiary of KPMG Europe LLP and a member firm of the KPMG network of independent member firms affiliated with KPMG International Cooperative, a Swiss entity.



## Purpose

This document outlines our findings from the review undertaken of the current indexation methodology for the Worcestershire County Council and Herefordshire District Council Waste PFI contract (the “Contract”) with Mercia Waste Management Limited (the “Contractor”).

## Background

As background, in 1998 under a partnership agreement, Worcestershire County Council and Herefordshire District Council signed the Contract, which was one of the first joint waste PFI contracts within the UK.

The Unitary Charge within the Contract was set to index in accordance to the Gross Domestic Product (GDP) Deflator index, which was considered to be the most appropriate index to reflect inflation within the UK economy at that time. One feature of the GDP Deflator index, is that historic values of the GDP Deflator are subject to revisions as extra information emerges after initial publication. As the historic values of the GDP Deflator are revised, this has an impact on each annual indexation uplift of the Unitary Charge<sup>1</sup>. Early in the Contract, an agreement was made between the Contractor and WCC to fix each yearly price increase to the relevant Q4 price of the prior year when the index is published each year, with any revisions to the historical index prices cancelling out over time.

Further to the regular revisions, on a small number of occasions since inception of the Contract the index has had a major rebasing, notably in both 2011 and 2016. The major rebasing in 2016 increased the historic GDP Deflator values meaning that based on the current indexation methodology the Unitary Charge would decrease from 1<sup>st</sup> April 2017. As the Contractor believed that this decrease would not be in line with changes of the underlying project costs it was agreed that the Unitary Charge would be frozen at the 2016 rate for 24 months until April 2019 and a review of the indexation methodology undertaken.

## Requirements

We have been engaged by WCC to provide an assessment of the current and potential indexation methods that may be used for the Unitary Charge.

WCC has set out 4 requirements for this study which will provide an assessment of the indexation methods, these requirements can be summarised as follows:

- 1) Identification of best practice/ usual practice regarding waste contract price indexation
- 2) Modelling impact of Mercia waste proposal vs the current indexation method and best/usual practice indexation methods
- 3) Assessment of the level of risk associated with the modelled indexation proposals
- 4) Identification of other matters that should be considered as part of agreeing to an amended indexation calculation

This document sets out the findings from each requirement along with providing conclusions regarding the appropriateness of each indexation method.

---

<sup>1</sup> Office for Budget Responsibility – Economic and fiscal outlook (2016)

## 1 Identification of best practice/ usual practice regarding waste contract price indexation

- 1.1 Historically, the GDP Deflator was used as the indexation mechanism for PFI/PPP contracts, because it was viewed as the best measure of inflation in the UK economy. The GDP Deflator measurement represents the adjustment for the change in GDP over the course of the year. However, in 1997, with the economy evolving due to the development of globalisation the UK government transitioned to using RPI as the best measure to represent inflation within the economy. Therefore from 1998 through to 2000, there was a transition for new PFI/PPP deals to be indexed at RPIX as opposed to the GDP Deflator. The reason for RPIX being used rather than RPI is that RPIX excludes mortgage interest which is not applicable to PFI/PPP projects.
- 1.2 The reasons for GDP no longer being considered a true representation of inflation within the UK economy are set out below:
- 1.2.1 Exclusivity to domestic products: The GDP Deflator is calculated based on GDP figures, which by definition only contain domestic goods and services. This calculation method therefore doesn't reflect inflation in the current economy due to the high level of globalization, where the economy consumes many foreign products. An example being a shortage of domestically produced goods would cause a spike in the price of foreign imported substitutes, assuming the same demand applies. This event would create a rise in the inflation figure, which GDP Deflator can't recognize and register because of its design structure.
- 1.2.2 Inclusion of business/government spending: The GDP Deflator, includes business/government spending as it is a part of domestic consumption. However, over the long run, the inclusion of this spending tends to divert GDP Deflator away from accurately representing economic inflation. The reason being businesses and government are less sensitive to price fluctuations. There is also often a lag by more than one time period between changes in consumer spending than that in businesses/ government. These two factors mean the inclusion of business/government spending would distort the responsiveness of measuring inflation.
- 1.3 For waste PFI/PPP deals signed post-2000, the standard/ best practice method for unitary charge indexation has been to use RPIX and more recently CPI, as these have been considered the best measures to reflect inflation within the UK economy. The CPI and RPIX indices are defined as follows:
- 1.3.1 RPIX: The RPIX index is a monthly index published by the Office of National Statistics (ONS), which measures the average change of goods and services over that month. The RPIX index is made up of a basket of goods based on consumer spending habits. In the same way, that the basket included in the GDP Deflator is subject to change, the basket of the RPIX index can also be changed. However, unlike the GDP Deflator index, the historic values of RPIX are not subject to revision.
- 1.3.2 CPI: The CPI index is also a monthly index published by the ONS which measures the average change in the process of goods and services bought for the purpose of consumption in the UK. The CPI index has a number of key differences to the RPIX index (detailed in section 1.4 below), however, as is the case for the RPIX index the basket of goods can be subject to change over time but the historic values of the CPI index will not be subject to revision. CPI has been considered to be the best benchmark for long term inflation within the UK economy since 2003, as it is used by Bank of England to target inflation at the rate of 2.0% per annum<sup>2</sup>.
- 1.4 There are a few key differences set out below between these two indices, set out below:

---

<sup>2</sup> Office of National Statistics – Statement on future of consumer price inflation statistics in the UK

- 1.4.1 The formula effect: CPI uses a combination of geometric and arithmetic means to synthesize price changes, while RPIX uses arithmetic mean only. As a result, CPI is, mathematically speaking, a more accurate representation of variation on consumptions function relative to change in prices.
  - 1.4.2 Different basket of goods and services: RPIX includes housing factors such as property depreciation and council tax, which are excluded from the CPI. Other components contained in RPIX and not CPI are new car prices, vehicle excise duty and TV license fees. However, CPI contains brokerage, student accommodation and oversee student tuition fees, which aren't in the scope of RPIX.
  - 1.4.3 Different targeted rates: RPIX and CPI have a different target level set out by the Bank of England, standing at 2.5% p.a. and 2.0% p.a. respectively<sup>3</sup>. This means that if WCC were to choose RPIX over CPI as an uplift for inflation, then based on the Bank of England target the rate of increase the Unitary Charge would be greater than if CPI were chosen as an indexation method.
- 1.5 A key aspect in the decision to use either RPIX or CPI for the unitary charge in waste PFI/PPP deals post-2000 has been the indexation used in the underlying contracts within the Special Purpose Vehicle (SPV) e.g. the O&M contract. If the indexation of the Unitary Charge matches the indexation of the underlying cost base of the SPV then this provides a natural hedge to the contractor to minimise fluctuations in income in comparison to costs (this is explained in more detail in Requirement 3) and so reduce the risk pricing the SPV would make when setting its unitary charge.

---

<sup>3</sup> Bank of England – Letter from the Governor to the Chancellor regarding CPI inflation (Feb 2018)

## 2 Modelling impact of Mercia waste proposal vs the current indexation method and best/usual practice indexation methods

- 2.1 A series of models have been run to assess the impact of using four different indexation methods, to allow WCC to assess the key differences of each index. The outputs of these models are used to assess the risks for each index, which is detailed in Requirement 3. The four indexation methods modelled as part of this analysis are as follows:
- 2.1.1 Current Unitary Charge indexation method: The modelling analysis follows the existing principles defined in the Contract which uses the annual uplift of the GDP Deflator. The mechanism works by computing the increase in the Index from the Relevant Date which is the Q4 1997 rate (as this was the first data point available from 01/04/1998) to the Relevant Review Date which is the Q4 rate of the previous year. For example from 01/04/2018, the indexation applied would be the increase in the GDP Deflator index from Q4 1997 to Q4 2017. To allow comparability with the other indices, this modelling ignores the current freeze in contract prices and so uplifts the existing Unitary Charge from 01/04/2018 onwards. The modelling of this indexation method has been split into two sets of outputs, i) the first set out of outputs includes the effect of the 2016 rebase and ii) the second set of outputs excludes the effect of the 2016 rebase. For the set of outputs which excludes the effect of 2016 rebase, the modelling for this has been performed by making the assumption that the GDP Deflator value for the Relevant Date (Q4 1997) in 2016 has remained the same as it was in 2015 i.e. the denominator is fixed at 70.6.
  - 2.1.2 Unitary Charge indexation method proposed by Mercia: Mercia proposed that in order to bypass the 2016 changes to the historic GDP Deflator values from ONS that affected the nature of the Index, the GDP Deflator should be simply calculated as the fixed Annual Movement between the two most recent year's Q4 figures. This would dispense with using the Q4 1997 value as the constant Relevant Date. For example the Indexation applied for 01/04/2018 would be the movement between Q4 2017 and Q4 2016. The purpose of this is to remove the impact from any retrospective changes made to the GDP Deflator Index. The first uplift of the existing Unitary Charge is applied from 01/04/2018 in the same way as the modelling for the Current Unitary Charge Indexation method.
  - 2.1.3 Unitary Charge indexation at RPIX: This modelling analysis sets a new constant Relevant Date from which increases in the RPIX index can be modelled. This can be done for RPIX as the historic values of RPIX are not subject to revision. For this analysis the constant Relevant Date has been set as Q4 2016. This means that the first uplift to the Unitary Charge is applied from 01/04/2018, with this being the increase in RPIX prices from Q4 2016 to Q4 2017.
  - 2.1.4 Unitary Charge indexation at CPI: This follows the same principle as the modelling used for the RPIX index. However, the increase in the Unitary Charge follows the CPI index instead. A constant Relevant Date has been set as Q4 2016 and the first uplift to the Unitary Charge applied from 01/04/2018, with this being the increase in CPI from Q4 2016 to Q4 2017.

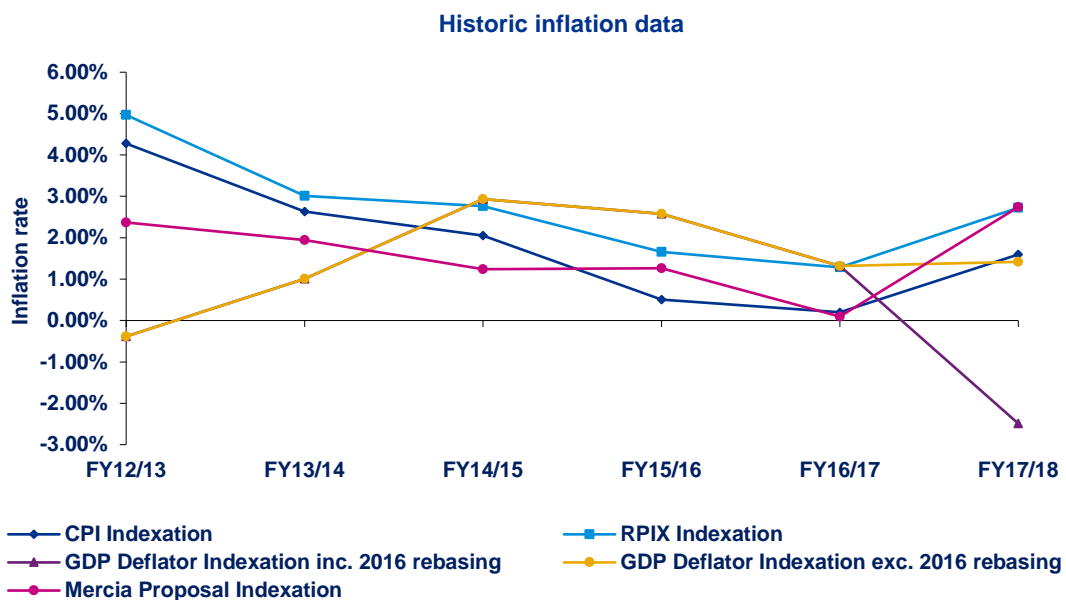
### Long term affordability

- 2.2 The first modelling exercise that has been undertaken is to assess the long term historic movements of each index. The purpose of this is to assess the long term affordability and Value-for-Money to WCC if it were to adopt each indexation method. This modelling has been performed by extracting the previous six years of movements of each index to act as an approximation of future movements of each index. These historic movements have then been applied year on year to the current unitary charge paid by WCC in 2018, to determine the estimated cost to WCC over the remaining six years of the existing contract.
- 2.3 The reasons why we used the last 6 years of historical inflation data as a proxy to extrapolate WCC's unitary payments for FY18/19-FY23/24 are as follows:

- The current contract is projected to end in January 2024. Therefore, it's imperative to choose the forecast horizon that can fully cover this period, which spans from FY12/13-FY17/18.
- We strongly feel that the inflation data from FY12/13-FY17/18 captures the entire UK economic cycle and best reflects a proxy of what one could expect to happen in the near future. The volatility of the UK market will revolve mostly around uncertainty created by the Brexit referendum. At the moment, there are no clear indications on concrete outcomes of the negotiations between the UK and EU. As a result, we need to take a cautious approach to our forecasts by incorporating a sudden decline for annual inflation, happening if a hard Brexit occurred. In that scenario, investments and consumer spending would be dramatically pulled back, leading to stagnant inflation. We observe that the inflation data presented from FY14/15-FY16/17 reflects this uncertainty. On the other hand, future inflation could potentially improve if UK and EU agreed on a mutually beneficial Brexit, boosting domestic activities. The situation can even be more positive when being combined with a global upswing in growth (which is already happening) and competitive exchange rate for the British Pound. This optimism has been built into our forecast with the use of inflation data from FY16/17-FY17/18, which depicts an economic recovery.
- As a result, extrapolating future unitary payments using the past 6 years annual inflation is considered to be a reasonably robust method as the data set contains the same time horizon and all identified uncertainty factors.

*Note: There is no guarantee that these indices will move in the same way in the future as historically.*

2.4 The historical movements of each respective index are shown in the graph below:



2.5 These movements have been applied year on year to the current estimated unitary charge of **£47.00m**<sup>4</sup>. This unitary charge represents the latest estimated annual cost of the Contract from WCC's budget expectations. The final year, FY23/24, has been pro-rated to only include 9 months (aligning to the existing project financial model) as the current contract is projected to end in January 2024. The table below shows the outputs from this analysis:

Nominal Unitary Charge Projected for Inflation Indices (£'000)							
Inflation Index	FY18/19	FY19/20	FY20/21	FY21/22	FY22/23	FY23/24	Total
Unitary Charge using CPI Indexation	49,010	50,298	51,329	51,587	51,690	39,386	293,299
Unitary Charge using RPIX Indexation	49,335	50,822	52,227	53,095	53,776	41,432	300,686
Unitary Charge using GDP Deflator Indexation inc. 2016 rebasing	46,818	47,290	48,678	49,934	50,592	36,999	280,311
Unitary Charge using GDP Deflator Indexation exc. 2016 rebasing	46,818	47,290	48,678	49,934	50,592	38,481	281,793
Unitary Charge using Merica Proposal	48,114	49,049	49,657	50,286	50,334	38,786	286,226

2.6 The index that proves to have the lowest cost to WCC over this time period would be the GDP Deflator which includes the effect of the 2016 rebase, deriving a total cost over the 6 year period of **£280.3m**. The reasons for this being the lowest total cost are twofold:

- the first is the impact from the rebasing of the index in 2016 reduces the unitary charge payment in that year; and
- the second is that historically the average annual increase of the GDP Deflator has been lower than both RPIX and CPI.

2.7 The index which would have the highest cost to WCC over the remaining six year period would be using the RPIX index, at a cost of **£300.7m**, with CPI and the Mercia Proposal having a total cost of **£293.3m** and **£286.2m** respectively.

2.8 For reference, when the effect of the 2016 rebasing is excluded from the GDP Deflator index, the total cost is **£281.8m**, which is a higher cost than when the 2016 rebase is included, however, it remains a lower cost than the other three other indexation methods.

<sup>4</sup> For modelling purposes it has been assumed that this is fully indexed. Therefore the total values presented for the Nominal Unitary Charge Projections are for illustrative purposes only.



## Short term volatility

- 2.9 The second part of this modelling analysis is to assess the volatility of each index. The reason for this is due to the risk to WCC in respect of its budgeting, as the unpredictability of a higher volatility index would make it more difficult for WCC to budget for the future increases in the Unitary Charge.
- 2.10 To measure the volatility, we have calculated the standard deviation of each index<sup>5</sup>. This is presented in the table below:

Inflation Index Volatility - Standard Deviation (%)	
Inflation Index	Standard Deviation
CPI Indexation	1.36%
RPIX Indexation	1.18%
GDP Deflator Indexation inc. 2016 rebasing	1.84%
GDP Deflator Indexation exc. 2016 rebasing	1.08%
Mercia Proposal Indexation	0.87%

- 2.11 This shows that the most volatile index over the last 6 years has been the GDP Deflator with the impact of the 2016 rebasing, which has a standard deviation of **1.84%** (**1.08%** when excluding the rebasing). The least volatile index has been the proposal presented by Mercia with a standard deviation of **0.87%**. CPI and RPIX volatility has historically be in the middle of the two other indexation methods, with a standard deviation of **1.18%** and **1.36%** respectively.
- 2.12 Overall, this modelling indicates that whilst the GDP Deflator would offer the lowest cost to WCC, due to this historically increasing at the lowest rate overall, it also has the highest volatility of the indices which would make it more difficult for WCC to budget for future Unitary Charge movements and provide uncertainty of whether it would truly be the lowest cost in 6 years time.

---

<sup>5</sup> Standard deviation provides a measure of the dispersion of the data from the statistical mean, therefore providing the potential movement of an index away from the expected average annual increase.

### 3 Assessment of the level of risk associated with the modelled indexation proposals

#### Risks to WCC

- 3.1 Each indexation methodology has a risk to WCC in relation to the **short term volatility of the index** (i.e. how much the index may move in each year) and the overall long term increase of each index.
- 3.2 The volatility risk for the index needs to be minimised as this presents a risk to WCC with regards to its budgeting strategy. The more volatile the index is, then the more difficult that it will be for WCC to forecast its future payments under the contract and so in turn increase the risk to WCC that the annual cost to service the contract will exceed the annual budget set by the Council.
- 3.3 As shown in Requirement 2, the highest volatility index over the prior 6 years has been the GDP Deflator with the 2016 rebasing impact (1.84% standard deviation), with the volatility being lower for both CPI and RPIX (1.36% and 1.18% standard deviation respectively). Therefore this suggests that adopting either the CPI or RPIX index as a method for indexation for the Contract would reduce the risk to WCC with regards to budgeting. The Mercia Proposal of taking the movement of the GDP Deflator between the two most recent Q4 points has historically had the lowest volatility of all indexation methods assessed, therefore this would suggest that this method would provide WCC with the best solution with regards to its ability to budget for movements in the Unitary Charge in the future.
- 3.4 The second key risk to WCC with regards to the index employed is regarding the **long term affordability** of the Contract to WCC to ensure that the Contract remains Value for Money for the taxpayer. To minimise this risk, WCC could look to employ the index which has historically increased the least, thus minimising the projected long term future cost to WCC.
- 3.5 As shown in Requirement 2, the index with lowest historic increase and therefore the lowest projected quantum future cost to WCC has been using the current indexation method of the GDP Deflator, with the total projected cost over the remainder of the contract being **£280.3m** (and £281.8m when excluding the 2016 rebasing). Both RPIX and CPI indices project a total cost of **£300.7m** and **£293.3m** over the same time period. The Mercia Proposal methodology projects a total cost of **£286.2m**. Therefore this analysis suggests that to minimise the risk to WCC by ensuring that the Contract remains affordable and Value-for-Money then continuing with the current indexation method may be most attractive to WCC.
- 3.6 However, whilst the GDP Deflator index method looks to have the lowest project cost, the key risk of the indexation method is that the index price from Q4 1997 can be rebased – an **index rebasing risk**. In the most recent change, this movement has been in favour of WCC by increasing the GDP Deflator index price from Q4 1997 and thereby decreasing the annual indexation applied to the Contract. As noted by Mercia however, there remains a risk that this will be adjusted further in the future and this movement may be detrimental to WCC if the Q4 1997 value is decreased and thus increases the annual indexation applied to the Contract. This risk is not present under any of the other three options for indexation including the suggested method provided by Mercia.
- 3.7 Additionally, linked to the above two points is the **alignment of an index to WCC budget resources** increases that WCC will likely have available to it. It would be beneficial for WCC to align the indexation of the Unitary Charge to the projected increases of its own budget. This would enable WCC to attribute the same percentage of its budget towards its waste contract each year. Over the long term, increases in the WCC budget will likely follow the long term inflation target for the Bank of England which is mirrored by CPI. However, it is noted that in recent years, austerity pressures have meant this is not the case and budgets have in fact reduced. Given that CPI nor any of the indices can accurately mirror the budget resources WCC has available to it none of the indices totally remove this risk.

### Risks to the SPV

3.8 The indexation method used should also minimise the risk to the SPV as well as minimising the risk to WCC. The key risk to the SPV is that the indexation of the operating cost contracts within the SPV (e.g. O&M contract) is greater than the indexation of the Unitary Charge it receives, thereby reducing the profitability of the SPV i.e. **contract cost alignment** risk. To minimise this risk, many waste PFI contracts set the indexation method of the Unitary Charge to align to the indexation method of the underlying cost base within the SPV. This provides a natural hedge to the SPV contract to allow profitability to be maintained. The financial model<sup>6</sup> projects the majority of contract costs increasing at 2.50% per annum, with a small number of contract costs increasing at 1.88% per annum, suggesting that the long term projected increase of the RPIX index of 2.50% most accurately mirrors the underlying cost base of the SPV.

### Assessment

3.9 The below table sets out a RAG rating for each potential indexation method in respect to the risks outlined above:

Index	Risks to WCC				Risks to SPV
	Long Term Affordability	Short Term Volatility	WCC Budget Alignment	Index Rebasing	Contract Costs Alignment
CPI Indexation	●	●	●	●	●
RPIX Indexation	●	●	●	●	●
GDP Deflator	●	●	●	●	●
Mercia Proposal	●	●	●	●	●

3.10 This table shows:

- the indexation method which appears to have the highest risk to both the WCC and the SPV is the GDP Deflator, the key risk being the high volatility of the index.
- to minimise volatility and provide good long term affordability then adopting the Mercia proposal for indexation appears a good solution, however, as this does not represent standard/ best practice for indexation in PFI/PPP contracts then there remains a risk that this does not align to future changes in the overall budget of WCC. Due to austerity pressures, however, none of the other indexation methods remove this risk either.

3.11 Therefore based on the risk RAG rating the Mercia Proposal appears to provide the solution which minimises most risk to WCC.

<sup>6</sup> 2016 04 18 v2 02 Mercia Agreed Variations Inputs CVI 075.xlsx

## **4 Identification of other matters that should be considered as part of agreeing to an amended indexation calculation**

- 4.1 Further considerations for WCC would be as follows:
- 4.1.1 WCC would need to consider the price base date from which the new indexation methodology would be applied. WCC has previously agreed with the Contractor that the Unitary Charge would be maintained at the same rate as paid in 2016/17 for a period of up to 24 months which would end in March 2019. It is not clear from that agreement when the new index would apply from once adopted. For example, is the agreement that the new index is to apply to the respective index from December 2016, when the freeze on the unitary charge was made (which would therefore provide the SPV an additional year of uplift from April 2019 as a 'catch up') or is it to be applied to the respective index from December 2017, meaning that the first indexation applied to the existing price is made from April 2019 (therefore not providing the Contractor with any 'catch up').
  - 4.1.2 WCC would also need to consider, whether the most applicable indexation method it chooses to adopt is for the remainder of the Contract, or for the five year extension period as well if it were to be agreed. As discussed in the answer to Requirement 3, the risk to the SPV would be minimised by adopting the indexation method which most accurately mirrors the indexation of the underlying cost base of the SPV. If the extension were to be agreed, then this would mean that the SPV would have to re-procure contracts for the extension period. These new contracts may have a different contractual indexation method compared to the indexation method of the existing contracts. WCC may wish to discuss with Mercia, what the most likely indexation method would be under any new contracts secured as part of an extension, to enable the most suitable indexation method to be applied for both the remainder of the current contract and through any extension period.
  - 4.1.3 A further point regarding the indexation of the underlying contracts is that the risk of a discrepancy between the indexation of the Unitary Charge and the indexation of the underlying cost base of the SPV may already be reflected in the profit margin obtained by the SPV. As discussed in the response to Requirement 3, by using the same indexation for the Unitary Charge as the indexation used for the underlying costs of the contract provides a natural hedge to the SPV, allowing it to maintain a stable profit margin and therefore being beneficial to the SPV by minimising risk. It is possible that when the initial contract was signed due to the SPV having this risk that revenues and costs would index at different rates, a larger profit margin accounted for by the SPV to help protect against this risk. Ideally if the indexation method adopted for the Unitary Charge better aligns to the underlying cost base indexation of the SPV contracts, then WCC should seek to renegotiate a lower Unitary Charge with the Contractor, to recognise the risk reduction in the SPV. In practice however, the negotiations with the Contractor over reducing the Unitary Charge would be both time consuming and difficult, as it is recognised there is lack of information with regards to the original risk pricing the SPV set.
  - 4.1.4 As stated in the answer to Requirement 1, the government use CPI as the best reflection of inflation within the economy and use this to act as the baseline to assess whether the long term inflation target of 2.00% is being met. This means that as the government continue to use CPI as their measure in the future, and WCC budget post austerity return to a norm, this would become the more accurate index to use if WCC wishes for the Unitary Charge indexation to be most reflective of inflation in the UK economy.

## 5 Conclusion

- 5.1 The current indexation method of the Unitary Charge (GDP Deflator) is considered to not represent current best practice for indexation methods as compared to the indexation methods used in other Waste PFI contracts. Usual/ best practice Waste PFI/PPP deals typically have Unitary Charge indexation linked to CPI or RPIX.
- 5.2 The current method of indexation (GDP Deflator) has been shown to be more volatile than the other possible indices and therefore presents a higher risk to WCC with regards to budgeting. To help WCC to budget for future changes to the Unitary Charge in the coming years, it should seek to minimise the risk of the volatility of the index employed. Both CPI and RPIX have historically been less volatile than the GDP Deflator. Of all of the indexation methods assessed the method which showed the lowest historic volatility was following the Mercia Proposal of taking the movement of the GDP Deflator between the two most recent Q4 points, therefore suggesting following this approach would be the best choice for WCC when seeking to minimise volatility.
- 5.3 The key points contained within the report which WCC should consider as part of the assessment of which indexation method to use are:
- 5.3.1 GDP Deflator had been changed in composition and rebased in 2016, therefore decreasing the projected Unitary Charge for April 2017 to March 2018. As this is not aligned to the underlying cost base of the SPV it is reasonable for WCC to look to identify alternative methods of indexation and avoid associated volatility and rebasing risk.
- 5.3.2 Considering long term affordability (i.e. the overall rate of increase that is observed by each index), it would be beneficial to WCC, to minimise the future increases in Unitary Charge by adopting the index that is projected to increase the least over the remainder of the contract. Based on historic movements this has been the GDP Deflator index (with and without rebasing), with the Mercia proposal providing the second most affordable option.
- 5.3.3 It would be beneficial to the SPV if the Unitary Charge were to increase at the same rate as the underlying cost contracts within the project, as this would provide a natural hedge to the profitability of the SPV. WCC, however, should investigate whether the risk of the Unitary Charge indexation not aligning to the underlying cost indexation is already factored into the profit margin that the SPV receives. If it is there is a case to be made that the profit margin received by the SPV should be reduced and so reducing the Unitary Charge paid by WCC. It should be noted however, that in practice it may prove difficult and time consuming to negotiate a lower Unitary Charge with the Contractor.
- 5.3.4 If WCC were to adopt the best practice methodology used in other waste PFI/PPP projects, then either CPI or RPIX would be adopted. Of these two indices the CPI index would be most beneficial for WCC to adopt, due to the long term indexation rate being lower for CPI than RPIX. However, as stated in Section 4.1.3, it may prove difficult to negotiate a lower Unitary Charge with the Contractor, therefore reducing the benefit that would be obtained by WCC if the CPI index were adopted. This in conjunction with the overall WCC budget not increasing in line with the rate of inflation in recent years due to austerity pressures, limits the benefit obtained by WCC if it were to adopt the best practice method for indexation.
- 5.4 Therefore it appears the most beneficial index for WCC to adopt is the indexation method proposed by Mercia. This is because historically this has shown the least volatility of all indices assessed in this report and has historically increased at a lower rate than either CPI or RPIX. From a long term affordability perspective it is close (i.e. slightly higher) to that of the GDP Deflator, but unlike the GDP Deflator the Mercia proposal is more stable as it avoids the risk of rebasing which comes with the GDP Deflator.



**Contact us**

**Neil Cole**

**Director, Infrastructure Advisory Group**

T +44 (0)121 609 5838

E [neil.cole@kpmg.co.uk](mailto:neil.cole@kpmg.co.uk)

**James Frobisher**

**Assistant Manager, Infrastructure Advisory Group**

T +44 (0)121 232 3406

E [james.frobisher@kpmg.co.uk](mailto:james.frobisher@kpmg.co.uk)

[www.kpmg.com](http://www.kpmg.com)

© 2018 KPMG LLP, a UK limited liability partnership and a member firm of the KPMG network of independent member firms affiliated with KPMG International Cooperative (“KPMG International”), a Swiss entity. All rights reserved.

For full details of our professional regulation please refer to ‘Regulatory Information’ at [www.kpmg.com/uk](http://www.kpmg.com/uk)

The information contained herein is of a general nature and is not intended to address the circumstances of any particular individual or entity. Although we endeavour to provide accurate and timely information, there can be no guarantee that such information is accurate as of the date it is received or that it will continue to be accurate in the future. No one should act on such information without appropriate professional advice after a thorough examination of the particular situation.

**The KPMG name and logo are registered trademarks or trademarks of KPMG International Cooperative.**