Working paper #2: market basket

This is the second of our working papers in relation to the default tariff cap. It covers the use of a market basket to set the initial level of the cap and to update it over time.

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1. Executive summary

1.1. On 6 March we published an update\(^1\) on our plans for retail energy price caps. This outlined our role in designing a temporary tariff cap for customers on Standard Variable and default tariffs under the Government’s proposed legislation. We explained that we would issue a series of working papers (as the legislation passes through Parliament) to explain how our thinking on the price cap design is evolving as we gather views and evidence from stakeholders.

1.2. In Working Paper #1,\(^2\) we said we would consider a number of options for setting the initial level of the default tariff cap. This working paper, the second paper in the series, looks at the first of those options: the market basket approach. We also explore using a market basket to update the cap over time.

1.3. We will discuss the other options outlined in Working Paper #1, including other price-based approaches, in subsequent documents. Our expected timetable for further publications is outlined in our next steps section.

1.4. A market basket is one option for using information on market prices to set or update the default tariff cap. It would use the prices of a selection of competitive tariffs, possibly with some minimum criteria for inclusion. In theory it is a very simple approach: by referencing the initial level to a set of competitive tariffs, no further adjustments would be required.

1.5. But there are a number of reasons why the most competitive tariffs in the market may not reflect the long-run costs of an efficient supplier – either initially or over time. First, market prices will depend on suppliers’ pricing strategies and the degree of competition in the market, not just their underlying costs. Second, different suppliers may face different costs. And third, when updating over time, basing the cap on market prices could affect suppliers’ incentives to price keenly in the competitive segment.

1.6. We could potentially mitigate some of these issues through the design of a market basket, by determining which suppliers and tariffs should be included. It might also be possible to include a specific uplift for policy costs which are not borne by all

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\(^1\) Ofgem (2018), Update on our plans for retail energy price caps

\(^2\) Ofgem (2018), Working paper #1: setting the default tariff cap,
https://www.ofgem.gov.uk/system/files/docs/2018/03/working_paper_1_-_design_issues_-_for_publication.pdf
suppliers. However, there are potential trade-offs between making the basket more likely to reflect efficient costs, and limiting the impact on suppliers’ incentives.

1.7. By increasing the number of criteria used to define the basket, we could potentially make the basket more representative of an efficient supplier. However, despite the proposed efforts to design the basket appropriately, there would still a significant uncertainty about the extent to which the tariffs in the market basket would actually represent the costs of an efficient supplier if, as we note, the tariffs in the market basket could potentially be loss-making or significantly above the efficient costs.

1.8. The more adjustments we make to the basket, the closer we move to creating a benchmark rather than using market information, and therefore the further we move from the simplicity and attractiveness of the market basket approach.

1.9. **At this stage, we do not think that a market basket would be a suitable way of setting the initial benchmark.**

1.10. The appropriate method for updating the cap level over time will depend on the approach used to set the initial benchmark. As one possibility, we could use another approach to setting the initial benchmark, and combine this with an index based on market prices to update the level of the cap over time. If a market basket was only used to update the cap level over time, it could be easier to design. It is possible that a basket with fewer criteria could still reflect cost trends, while reducing the risk of affecting suppliers’ incentives. We plan to carry out further work in this area.

1.11. We invite comments on all issues in this paper. Please submit these no later than 13 April to our mailbox: retailpriceregulation@ofgem.gov.uk.

### 2. Design challenges with a market basket approach

2.1. This working paper draws on the feedback which we received to our December consultation on financial protections for more vulnerable consumers\(^3\), in which we included the market basket as a potential option for setting the initial level. Given timescales for preparing this working paper, we have not included views from any of the feedback which we have so far received in response to Working Paper #1.

2.2. In response to our December consultation, a number of stakeholders questioned whether the cheapest tariffs currently available in the market would reflect the efficient costs incurred by larger suppliers, or indeed whether the cheapest tariffs are priced to recover all of the costs incurred in their supply activities.

2.3. However, it could be argued that smaller suppliers (who typically offer the cheapest tariffs) are more likely to represent the efficient level because while they may not face all the same costs as larger suppliers, they may be more likely to be efficient with the costs they face (for example if new entrants are able to make more use of new technology).

2.4. There are potentially a number of reasons why the cheapest tariffs in the market might not reflect the long-run costs of an efficient supplier:

- The cheapest tariffs in the market could be priced above or below the long-run costs of an efficient supplier because of the nature of competition in the market.

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• Different suppliers might possibly have different underlying cost bases which could be reflected in the prices they charge.

2.5. Also, as the basket is updated over time, there is a risk that suppliers are incentivised to influence the benchmark through their prices, and so market prices may no longer reflect efficient costs.

2.6. We discuss each of these three issues in turn below.

2.7. **The nature of competition in different market segments.** It is first worth explaining why the cheapest tariffs in the market are our starting point for designing a market basket. The market is split into two tiers, whereby consumers who change tariff or supplier benefit from competition and get good deals, while consumers who do not shop around pay considerably more. If we designed the basket such that it was drawing upon less competitive segments, there would be a risk that the basket would not reflect the costs of an efficient supplier and would be set too high.

2.8. However, it is possible that the cheapest tariffs in the market could be priced below the long-run average costs of an efficient supplier. In theory, there are a number of possible reasons why this could be the case.

• First, as in any market, suppliers may need to offer discounts to acquire new business. Even if a supplier was making a normal rate of return on average, its cheapest acquisition tariffs might therefore not allow it to cover its long-run costs. The extent to which acquisition tariffs are discounted could depend on the competitive dynamics in the market, as well as on the level of consumer engagement.

• Second, new suppliers and those looking to grow their customer base quickly may set low prices to attract customers quickly. For example, this could be in order to reach an efficient scale. Such strategies are sustainable in the short run, but in the longer term suppliers will still need to recover their long-run average costs.

• Third, depending on their particular business models, some suppliers may seek to make part of their return through cross-selling other products and services beyond energy supply. If this was the case, looking at a supplier’s energy supply activities in isolation might overstate or understate the return required by a business focused solely on energy supply.

2.9. **Differences in supplier costs.** Currently, it is often smaller suppliers (or suppliers with new business models) who offer the cheapest tariffs in the market. A number of larger suppliers highlighted that smaller suppliers do not have the same regulatory costs or obligations to participate in certain social and environmental schemes. The two relevant schemes are the Energy Company Obligation (ECO) and the Warm Home Discount (WHD). Suppliers are only obligated to participate in these schemes once they reach certain thresholds with regards to customer numbers, and the costs are not socialised across all suppliers. Having said this, smaller suppliers may also face higher costs in other aspects due to their size, and could be more efficient (compared to larger suppliers) at managing some costs.

2.10. Different suppliers have different business models which might also have a different cost base. Some suppliers might have a cost base which cannot be generalised to the market as a whole (for example, if a supplier focussed on niche products or services). Even if a supplier’s prices covered its own costs, they might not reflect the long-run costs of an efficient supplier in general. At this stage, we are only noting this as a hypothetical issue – we do not have evidence that this is an issue in practice.
2.11. Effects on supplier behaviour. Once the price cap is in place, over time a market basket could affect suppliers’ pricing behaviour in the competitive segment in order to influence the next update of the cap level. For example, a supplier might increase the price of its cheapest tariff in order to increase the cap level implied by the market basket. (A supplier could also seek to influence the value of the basket downwards). This incentive could (over time) affect the extent to which market prices reflect the long-run costs of an efficient supplier.

2.12. Whether a supplier adopted this strategy would partly depend on how confidently it could predict the basket and whether it thought it had the ability to affect the level of the basket (eg its degree of confidence on whether its tariff would be in the basket). A supplier’s incentives would also depend on its customer base – a supplier with a high proportion of customers on default tariffs (and therefore subject to the cap) would be more incentivised to influence the value of the basket upwards than a supplier with more engaged customers on fixed contracts.

2.13. In addition to the three issues discussed above, there is a practical issue about forward hedging. The cheapest tariffs in the market at any one time may include both fixed and variable tariffs, and within the fixed tariffs there may be tariffs of various term lengths. These tariffs may have different associated hedging strategies. Over time, the balance of tariff types in the basket are likely to change. This could make it challenging for suppliers to apply a hedging strategy in line with the basket.

3. Mitigating issues through basket design

3.1. We have considered whether some of the issues raised in section 2 could be mitigated, either through the design of the basket or a specific uplift. These are explained in the section below.

3.2. However, it is important to note there are potential trade-offs between a basket design which is more likely to reflect the costs of an efficient supplier and a basket design which attempts to minimise suppliers’ ability to deliberately influence the cap level.

Design parameters

3.3. There are a number of different parameters we could control in order to design a basket that would be most likely to represent the costs of an efficient supplier. By controlling these parameters we might be able to mitigate some, but not all, of the issues described above.

3.4. We set these parameters out in Table 1 below. Where relevant, we also note any values we have used to help us as part of our initial analysis, in order to make the design options more tangible. These are purely illustrative – further work would be needed to evaluate the merits of different values.

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4. The wholesale prices of electricity and gas can be volatile. Some suppliers attempt to “hedge” this cost by purchasing energy (for total demand in a given period) incrementally in advance, rather than purchasing all the energy required to meet total demand at a single point in time. Suppliers which offer fixed term, fixed price contracts generally purchase energy well ahead of time at a known cost which they can then pass on to customers for the term of their contract. Different suppliers adopt different hedging strategies, for example how much and how far in advance of final demand they purchase energy.
Table 1: Design parameters for a market basket

<table>
<thead>
<tr>
<th>Issue</th>
<th>Design Parameter</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Effects on supplier behaviour</td>
<td>Number of entries per supplier</td>
<td>We might want to consider limiting the number of tariffs per supplier in the basket. This would help to mitigate the risk that suppliers use multiple tariffs to influence the basket downwards (eg by offering a relatively cheap tariff to a select group of customers).</td>
</tr>
<tr>
<td></td>
<td>Excluding the cheapest five tariffs</td>
<td>We might want to exclude a small number of the cheapest tariffs available in the market, to reduce the risk that suppliers seek to influence the basket downwards, because very cheap tariffs would drop out of the basket.</td>
</tr>
<tr>
<td></td>
<td>Tariff availability</td>
<td>We might want to consider excluding tariffs which are not available to everyone because suppliers could offer tariffs with limited availability to influence the basket downwards.</td>
</tr>
<tr>
<td>Competitiveness of different market segments</td>
<td>Excluding the cheapest five tariffs</td>
<td>We might want to exclude a small number of the cheapest tariffs available in the market, to control for the possibility that there are ‘outlier’ tariffs which are priced significantly below long-run costs (eg where a supplier might be attempting to gain market share quickly). For the analysis in this paper we excluded the five cheapest tariffs in the market and included the next ten cheapest tariffs in the basket.</td>
</tr>
<tr>
<td>Differences in supplier costs</td>
<td>Suppliers of a minimum size</td>
<td>We might want to consider whether to set a minimum threshold on supplier size, if we thought that the tariffs set by some suppliers might be less likely to be representative of the costs incurred by a supplier in general. For example, this could mitigate the risk of new suppliers setting below-cost prices to build scale. (Policy costs also vary by supplier size, but we discuss this specific issue from paragraph 3.26 below). However, there are also risks from introducing a threshold. This could potentially incorrectly exclude efficient tariffs and lead to the inclusion of inefficient tariffs in the basket. For our initial analysis we have used a threshold of 50,000 customers at the supplier group level.</td>
</tr>
<tr>
<td></td>
<td>Tariff availability</td>
<td>We might consider excluding tariffs which are not available to everyone (eg social tariffs available in a particular location) because they may not reflect the costs of an efficient supplier with a different customer base. For the analysis in this paper we looked at the impact of including or excluding tariffs which are only available to a restricted group of customers.</td>
</tr>
<tr>
<td>Forward hedging</td>
<td>Tariff types</td>
<td>The balance between fixed tariffs and variable tariffs in the basket could potentially change over time and this would make it more challenging for suppliers to apply a hedging strategy which is consistent with the</td>
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</tbody>
</table>
3.5. By using these parameters to limit the variety of tariffs which could fall within the basket, we could try to ensure that the tariffs captured by the basket are more comparable with the tariffs offered by a supplier in general.

3.6. However, by restricting the set of eligible tariffs which could form part of the basket, there is a trade-off in terms of robustness against possible attempts by suppliers to influence the basket. For example, setting a minimum supplier size threshold, and limiting the basket to allow only one tariff entry per supplier, significantly reduces the number of tariffs in the overall eligible sample from which we draw the basket. This means that the basket value could be relatively volatile as individual tariffs move into and out of the basket. As we have set out above, it also may lead to incorrectly excluding efficient tariffs. This trade-off is explored further in the section below.

**Evaluation**

3.7. We carried out initial analysis based on the parameter values described above, in order to help us consider the practical implications of the choice of design parameters. Our analysis was based on market data on tariffs available as at 1 January 2018. The four baskets we examined had different combinations of tariff type (fixed tariffs with a term between 10 and 14 months, or variable tariffs) and treatment of ‘select’ tariffs (included or excluded).

3.8. Our analysis highlighted that fixed rate tariff baskets were significantly cheaper than the baskets based on variable rate tariffs. It also highlighted the possibility that tariffs which are only offered to a small or select group of consumers may not reflect the costs of an efficient supplier with a different customer base, and the risk that suppliers might use such tariffs to manipulate the cap level implied by the market basket. Therefore, our analysis shows that the basket needs to be sufficiently large so that it does not allow individual suppliers to influence the cap. Table 2 below explains the basket types we tested.

**Table 2: Basket design variables and design parameters**

<table>
<thead>
<tr>
<th>Basket</th>
<th>Basket design variable</th>
<th>Design parameters common to all baskets</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>All 1Yr Fixed Tariffs (including tariffs with restricted availability)</td>
<td>• Limited to suppliers with over 50,000 customers</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Only one entry per supplier</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Excluded the cheapest five tariffs</td>
</tr>
<tr>
<td>B</td>
<td>All Variable Tariffs (including tariffs with restricted availability)</td>
<td>• Basket consisted of the next 10 cheapest tariffs</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Prices were direct debit, dual fuel, single rate, GB average</td>
</tr>
<tr>
<td>C</td>
<td>Select 1Yr Fixed Tariffs (excluding tariffs with restricted availability)</td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>Select Variable Tariffs (excluding tariffs with restricted availability)</td>
<td></td>
</tr>
</tbody>
</table>
3.9. Baskets A and C contained only fixed term tariffs, and allowed us to test whether there are significant differences in price and behavioural risks compared to baskets B and D, which contained only variable rate tariffs.

3.10. Baskets A and B contained all eligible tariffs, whilst baskets C and D excluded tariffs which are only available to a restricted group of customers (e.g., tariffs only available to new or existing customers). This allowed us to test whether tariff availability had a significant effect on price and behavioural risks.

3.11. The design parameters which are common to all baskets were kept constant to ensure that the baskets were comparable.

3.12. This analysis can tell us something about the relative levels of the different baskets. We found that the baskets of fixed rate tariffs (baskets A and C) were significantly cheaper than the baskets based on variable rate tariffs (baskets B and D). There could be various reasons why this might be the case, but in part this might reflect the degree to which fixed rate tariffs are marketed at more engaged consumers. Setting the basket based on fixed tariffs might reduce the risk of including the effects of consumer disengagement on the prices of variable tariffs, and might therefore be more reflective of the costs of an efficient supplier.

3.13. We also found that basket D was more expensive than basket B. In part this might reflect the degree to which the tariffs which are only offered to a small or select group of consumers may not reflect the costs of an efficient supplier with a different customer base. It also highlights the risk that suppliers might use such tariffs to manipulate the cap level implied by the market basket.

3.14. To test the potential impact of the other design parameters, we looked at the effect of relaxing the parameters which were common to all the baskets. We found that limiting the basket to one tariff per supplier increased the price of the basket, as suppliers with multiple cheap tariffs were restricted to a single entry. We also found that relaxing the minimum supplier size threshold reduced the price of the basket and resulted in an increase in volatility due to loss leaders and new entrants (see paragraph 3.6 above). This shows there may be a trade-off between the price of the basket and limiting the potential for a supplier to influence the basket.

3.15. Our analysis highlights the importance of basket size. The basket needs to be sufficiently large so that it does not allow individual suppliers to influence the cap. However, if the size of the basket is large relative to the overall number of eligible tariffs in the sample, then if a relatively small number of suppliers withdrew their tariffs, it might not be possible to calculate the basket. In some cases, it took as little as five suppliers removing their eligible tariffs to create this situation.

3.16. One way to expand the number of eligible tariffs would be to increase the tariff types that enter the basket. We tested this by expanding a basket of one year fixed tariffs to include two year fixed tariffs as well. Although this increased the pool of eligible tariffs, it would make it harder to predict the composition of the basket, and therefore could make it harder for suppliers to hedge in line with the basket.

3.17. By reducing the number of eligible tariffs, the values for the design parameters could potentially make the basket more susceptible to influence over time through suppliers’ pricing decisions. We could relax these parameters, but the trade-off is that this could make the basket less reflective of the costs of an efficient supplier (e.g., by including a greater range of supplier sizes into the basket) or make it harder to apply a hedging strategy consistent with the basket (e.g., by including a larger range of tariff types).
Further discussion on risks of using cheapest tariffs

3.18. As discussed earlier, there is a risk that a basket of cheapest tariffs is dominated by tariffs which are priced below the long-run average costs of an efficient supplier. Even after applying the adjustments outlined above it is very challenging to accurately measure how widespread such 'loss-making' tariffs might be. Most suppliers are not required to report publicly on their supply revenues, costs and profits – and existing reporting is at the supply business rather than tariff level. However, based on initial conversations with a few suppliers, and market analysis submitted by other suppliers, we think that this would require further investigation before using a basket to set the initial level of the cap.

3.19. We also considered whether it might be possible to design the basket in order to mitigate the potential impact of loss-making tariffs.

3.20. One option could be to try and exclude loss-making suppliers as a proxy for loss-making tariffs. We could identify appropriate suppliers by assuming those in their growth phase are making a loss, and therefore we could set a threshold based on customer numbers.

3.21. However, we have no reason at this stage to assume that a basket based on the tariffs offered by suppliers with a larger market share would be a more appropriate approach. For example, growing suppliers may not be the only ones who are making a loss. We will also need to be mindful of the risk that we include higher cost tariffs from inefficient companies into the basket if we set the threshold too high. Furthermore, as we note above, this restriction could potentially increase the ability for the remaining suppliers to influence the level of the basket.

3.22. We could try to carry out more detailed analysis to identify loss-making suppliers. This would involve profitability analysis. Whilst the Consolidated Segmental Statements (CSS) would allow us to do this for the six largest suppliers, public accounts for other suppliers (especially small suppliers) have limited information and are only available with a significant lag.

3.23. Another option would be to try to identify loss-making tariffs. This would likely require company specific investigations on strategy and corresponding tariff analysis, which would again require significant information gathering. This would be a resource intensive exercise and such investigations may only yield a partial understanding of which tariffs and firms to exclude from the basket.

3.24. A further option would be to account for loss-making tariffs by applying a specific uplift on top of the value implied by the basket. The uplift would need to be set accurately enough to ensure that suppliers would be able to recover their efficient long run costs, but to do this we would need to have a detailed understanding of the financial performance of the tariffs in the basket. It is also important to note that the required uplift would depend on which suppliers are in the basket and how their pricing changes over time.

3.25. All of these options would be a significant departure from the simplicity of a market basket approach.

Other differences in supplier costs: policy costs

3.26. The more adjustments we make to the basket, the closer we move to creating a benchmark rather than using market information, and therefore the further away we move from the simplicity and attractiveness of the market basket approach. However,  

5 If a supplier is making a loss overall, this might increase the likelihood that its cheapest tariffs are also loss-making. However, this is not necessarily the case – a supplier’s cheapest tariffs might also have lower costs.
our analysis of potential basket designs revealed that tariffs offered by the larger suppliers only made up a minority of the tariffs in the baskets. In part, this may be due to obligations to participate in certain social and environmental schemes which do not apply to smaller suppliers – in particular ECO and WHD. Without any further action, the basket might not fully reflect the costs of an eligible supplier who was subject to these costs.

3.27. We consider that it in principle it should be possible to introduce an adjustment to account for these specific costs, as they might be different to the costs incurred by the larger suppliers represented in the basket. We carried out some initial analysis to estimate the cost of each scheme to the obligated suppliers (on a per customer basis), following a similar methodology to that used in the construction of the Supplier Cost Index.\(^6\) We took into account the split between the Core Group and the Broader Group in the WHD scheme, and the tapered obligations for smaller suppliers in the ECO scheme.

3.28. Our initial analysis suggests that such an adjustment could be relatively straightforward. However, it might still need information from suppliers on the actual and forecast cost of these schemes, especially where they exhibit greater degrees of controllability, or may differ across suppliers. We will discuss issues around the treatment of policy costs more generally in a later document.

4. **Our current view on using the market basket to set the initial level of the cap**

4.1. This working paper explains why we think that there are a number of significant challenges which mean that it is unlikely that the basket would meet our objectives for setting the initial level of the cap.

4.2. We are particularly concerned that it may not be possible to design the basket to ensure that it reflects the costs incurred by an efficient supplier, due to the uncertainty about the extent to which the cheapest tariffs in the market are loss-making. This uncertainty could lead to either setting the cap too high (failing to deliver adequate protection for affected customers) or setting the cap too low (failing to ensure that suppliers can finance their activities, and affecting the incentives of consumers to switch).

4.3. We are also concerned that a basket which seeks to reflect efficient costs initially could be more open to influence by suppliers over time. In turn this could affect the price and availability of tariffs for engaged customers.

4.4. Therefore, we currently think it is unlikely that the market basket would be an appropriate way to set the initial benchmark. We are interested in stakeholders’ views on this position.

5. **Our current view on using the market basket to update the cap over time**

5.1. The appropriate method for updating the cap level over time will depend on the approach used to set the initial benchmark. As one possibility, we could use another approach to setting the initial benchmark, and combine this with an index based on market prices to update the level of the cap over time.\(^7\) If the market basket was only used to update the price cap over time (ie as an index), it might be easier to design.

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\(^6\) Ofgem (2017) Supplier Cost Index – Methodology
[https://www.ofgem.gov.uk/system/files/docs/2017/03/supplier_cost_index_-_methodology_v1.1_0.pdf](https://www.ofgem.gov.uk/system/files/docs/2017/03/supplier_cost_index_-_methodology_v1.1_0.pdf)

\(^7\) We would calculate the value of the market basket in the base period (ie at the point the initial benchmark was set), and define this as the starting index value. As we recalculated the market basket over time, the value of the index would change. To update the cap, we would multiply the initial benchmark by the changing index value.
Specifically, a basket where we relaxed certain design parameters might still reflect changes in underlying cost drivers, whilst reducing the risk that suppliers are able to influence the basket.

**Design implications of only using basket to update cap**

5.2. At this stage, we think there would be a more suitable way of setting the initial benchmark. But if we were using a market basket only to update the level of the cap (ie as an index rather than a level), the main questions would be whether the basket tracked trends in costs, and whether we could reduce the potential for suppliers to influence the value of the basket through their pricing behaviour. If we used a different approach to setting the initial level of the cap, we might be less concerned about whether the market basket is calibrated at the right level to cover all costs.

5.3. Through our recent engagement with stakeholders, some suppliers submitted their own analysis of possible market baskets. One supplier provided analysis to suggest that for a relatively simple basket design (where the only variable is the number of tariffs in the basket) each basket variant follows a similar price trend over time. This is particularly true when comparing the basket designs in the middle of the range (ie not the smallest or largest basket sizes). This might suggest that the basket design does not have a significant effect on its ability to accurately track changes in efficient costs over time, and could potentially be used to index the initial cap level.

**Figure 1: Price trends across a range of market baskets, by basket size (January 2017 to December 2017)**

Initial advantages and disadvantages of using a basket in this way

5.4. In theory, market prices should be driven by **trends in the underlying costs**. However, cost indices which are external to suppliers (ie they cannot be affected by any individual supplier) will inevitably be an approximation of the trends in the costs that suppliers actually incur. Looking at prices might reduce the reliance on these approximations. For example, instead of constructing a wholesale cost index based on a few key products, market prices should incorporate trends in wholesale cost elements which are harder to incorporate in an index, like the cost of shaping a supplier’s purchases to its demand. Operating costs is another area where market prices might have advantages – this is because market prices are energy-specific, whereas the headline measure of inflation (CPI) is an economy-wide metric. This would be more important if the trends in the operating costs of an efficient supplier are significantly different to (aggregate) inflation in other goods and services.
5.5. However, any observations of market prices might also incorporate non-cost trends, such as trends in suppliers’ pricing behaviour. For example, if a number of new suppliers entered the market and set low prices to try and build scale, this could lead to a reduction in the value of the basket, even if cost trends were increasing.

5.6. We will also need to consider suppliers’ ability to influence the value of the basket. We may be able to use a larger basket to mitigate this risk. However, a larger basket (or one with fewer design restrictions) may have its own risks. For example, it could affect the way in which the basket tracks costs, if some costs are only faced by certain suppliers (eg certain policy costs).

5.7. There is also a risk that if cheapest tariffs offered by some suppliers are those capped by the price cap itself, the market basket might capture these prices and the price cap risks becoming circular. In this scenario, the basket would be less reflective of changes in the underlying costs facing suppliers, and would also inhibit the incentives on suppliers to become more efficient over time.

5.8. In addition, we would also need to consider the administrative process for updating the market basket over time. The market basket approach would require Ofgem to have access to a database of all tariffs in the market. This data would need updating on a frequent (possibly daily) basis. This is important because the way in which we compile the list of tariffs for the basket also affects suppliers’ ability to influence the price. For example, if suppliers know we are taking a snapshot of their tariffs at a given time, this could affect their pricing behaviour at this point in time to affect the basket price.

5.9. We also note that the process to calculate updates to the cap level and notify suppliers of the change would (by necessity) introduce a lag between the most current market data used to set the cap, and the implementation of the new cap level.

**Current position**

5.10. Based on our initial consideration of these issues, we plan to conduct our own analysis in order to come to a detailed assessment of the potential to use an index based on actual market prices to update the initial benchmark over time. However, if we consider this approach further we would need to be mindful of the potential risks and challenges described above.

**6. Next steps**

6.1. This paper sets out our current thinking on the market basket approach for setting the initial level of the cap and for updating the cap over time.

6.2. We have not included questions in this paper, but are inviting comments on any or all of the issues raised. Please submit these no later than 13 April 2018 to our mailbox: retailpriceregulation@ofgem.gov.uk.

6.3. We intend to cover other possible design options in future working papers. Table 3 below sets out our updated timetable for publishing further working papers and consultations over the coming months to support the design of the tariff cap.
### Table 3: Expected milestones for the design and implementation of a tariff cap

<table>
<thead>
<tr>
<th>Milestone</th>
<th>Dates</th>
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<tbody>
<tr>
<td>Update on the scope of the broader vulnerable safeguard tariff</td>
<td>April 2018</td>
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<tr>
<td>Evidence gathering and data requests</td>
<td>March-May 2018</td>
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<tr>
<td>Developing tariff cap design:</td>
<td></td>
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<tr>
<td>- Working paper #3 on the approach to headroom</td>
<td>Early April 2018</td>
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<tr>
<td>- Working Paper #4 on costs that could be adjusted periodically</td>
<td>Mid-April 2018</td>
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<tr>
<td>- a policy consultation on all our design thinking to date</td>
<td>May/June 2018</td>
</tr>
<tr>
<td>Publish draft licence conditions for either the vulnerable safeguard tariff or the default tariff cap</td>
<td>August 2018</td>
</tr>
<tr>
<td>Decision and set the level of the tariff cap</td>
<td>Autumn 2018</td>
</tr>
<tr>
<td>Tariff cap comes into effect</td>
<td>End 2018</td>
</tr>
</tbody>
</table>