SSRO

Single Source Regulations Office

Guidance on inflation

March 2023

SSRO guidance on inflation

1. This document supplements the SSRO's existing allowable costs, profit and reporting guidance on the topic of inflation. The SSRO issues the following statutory guidance which should be read in conjunction with this document:

    - Allowable costs guidance
    - Guidance on the baseline profit rate and its adjustment
    - Guidance on preparation and submission of contract reports
    - Reporting guidance on preparation and submission of supplier reports

2. This guidance is to help the parties to qualifying defence contracts and sub-contracts (QDCs and QSCs) meet their legal obligations under the Defence Reform Act 2014 (the Act) and the Single Source Contract Regulations 2014 (the Regulations). This includes when those parties are agreeing how to reflect inflation in the price of qualifying contracts and when contractors are preparing their statutory reports. It is issued pursuant to sections 18, 20 and 24 of the Act and aims to ensure that value for money is obtained on qualifying contracts and that contractors are paid a fair and reasonable price under those contracts. It is a legal requirement to have regard to the SSRO's statutory guidance when:

    - determining the allowable costs for a QDC or QSC under section 20 of the Act;
    - determining the contract profit rate for a QDC or QSC in accordance with section 17(2) of the Act; and
    - preparing contract reports on QDCs and QSCs under section 24 of the Act.
    - preparing supplier reports under section 25 of the Act.

General principles

- The effects of inflation, either actual or estimated, should be considered in determining the allowable costs under a qualifying contract.
- The approach to reflecting inflation in contract costs may include the use of a relevant price index. The choice of index or indices should be informed by the cost drivers and outputs of the contract.
- The approach to sharing or transferring inflation risk between the contracting parties should be reflected in the contract profit rate through the cost risk adjustment.
- Adjustments using specified rates or indices in the determination of allowable costs is a matter that the SSRO must accept a referral on.
- Suppliers should report information relevant to inflation and the use of indices in accordance with the statutory reporting requirements.

The requirements of allowable costs

3. The Act requires that QDCs and QSCs are priced on the basis of allowable costs. A contractor's costs (which include those already incurred and those which are anticipated) are allowable costs in a QDC or QSC to the extent they are appropriate, attributable to the contract and reasonable in the circumstances (the requirements of allowable costs). The approach to reflecting inflation in the contract costs and therefore the price, including the choice of any index, should be taken into account when determining if those costs are allowable under a qualifying contract. Both parties must be satisfied with the chosen approach taken to reflect inflation but the burden of proof remains with the contractor to demonstrate that the approach taken is consistent with the requirements of allowable costs.

4. Inflation is a measure of how the prices of goods and services increase over time. When these increases affect the costs that contractors claim as allowable costs in QDCs and QSCs it may, in some cases, increase the price of existing contracts and those contracts yet to be priced. It may also reduce the actual profit earned by contractors on contracts whose prices are not subject to change. The sections that follow explain this process in more detail. Inflation is driven by factors in the wider economy and does not include cost increases due to misestimation of costs, changes in contract requirements, or supplier-specific workforce or supplier challenges which are not in scope of this guidance.[1] These matters require separate consideration in respect of determining the price of a qualifying contract.

5. The requirements of allowable costs must be met when agreeing if and how inflation is reflected within allowable costs under a qualifying contract. The allowable costs guidance sets out the typical characteristics of costs that meet the requirements of allowable costs. This document provides further specific guidance on the matter of inflation affecting allowable costs.

Use of indices

6. A price index may be used to reflect the actual or expected inflation effects in the allowable costs under a QDC or QSC, for example by including escalation within a cost estimate at the time of agreement under firm price, or by adjusting the estimated costs with reference to an index through the life of the contract. Any inflation adjustment or escalation must be consistent with the requirements of allowable costs.

7. It is important to use price indices targeted to the contract and its cost drivers, particularly where inflation is highly uncertain. For example, using a consumer price index would be unsuitable unless its constituents are representative of the cost drivers of a specific defence contract. If they are not, a producer price index targeted at the contract outputs may be more suitable. Contracting parties may wish to seek expert advice on the choice of indices where this is required. The extent to which an estimated or actual cost is an allowable cost under a qualifying contract, which includes any adjustment using a specified rate or index, is a matter which may be referred to the SSRO for an opinion or determination.

1 The Ministry of Defence has published an evidence summary on the drivers of defence cost inflation which explores the factors pushing up costs of defence goods and services in more detail. Evidence Summary – The Drivers of Defence Cost Inflation (2022)

8. The extent to which the costs are within the contractor's control and the extent of uncertainty about future rates of inflation affecting allowable costs will determine if it is **appropriate** to include price index-linked costs. Those costs which are more uncertain and largely determined by economic factors external to the contracting parties are more likely suited to indexation. Examples may include volatile commodity costs, or other volatile costs which a contractor cannot reasonably be expected to control. Decisions about indexation should always be made based on the circumstances at the time of agreement. Index-linked adjustments need not normally be applied to costs which are within the contractor's control and well understood. In these cases, the application of an escalation factor to a base estimate under a firm price may be a more suitable way to reflect inflation in the allowable costs.

Price indices

A price index measures the average price of a group of goods and services over a time period. It can be used to measure the change in prices between two periods and is the basis upon which inflation can be measured.

Consumer price indices measure the price of goods or services purchased by households. Producer price indices measure the prices received by producers for their outputs or prices paid for their inputs:

- output price indices measure change in the prices of the goods sold by UK manufacturers ('the factory gate price'); these include costs such as labour, raw materials and energy as well as interest on loans, site or building maintenance, and rent, but exclude taxes.
- input price indices measure change in the prices of materials and fuels bought by UK manufacturers for processing; these include materials used in the final product and by the company in its normal day-to-day running.

In this document we adopt the following terminology

- Index linked costs/indexation: where a cost is adjusted in accordance with the actual movements in a specified index over the life of the contract e.g. under a fixed price contract
- Escalation: where the estimated costs include an uplift using a predetermined factor to cover the estimated effect of inflation on the costs of delivering the contract e.g. under firm priced contract.

9. A chosen index should be suitable in scope relative to the type of cost being escalated, in order that any increases may be considered **attributable to the contract**. The composition of the index should therefore relate to the outputs of the contract to which the cost relates. Where a cost is subject to price indexation, to avoid double counting, that cost should be included in the estimate at current prices (i.e. no escalation), meaning inflation should not be reflected in the estimate at the time of agreement (see example below).

10. Section 3 of the allowable costs guidance sets out the typical characteristics of a cost that is **reasonable in the circumstances**. This includes the characteristic that the cost is consistent with costs incurred by the contractor in similar circumstances. Consideration must be given to the specific circumstances of the case when determining whether costs are reasonable. Matters which may influence costs, and which may, therefore, be considered when determining if a cost is reasonable in the circumstances, include, among others, the economic conditions (see paragraph 3.15 of Allowable costs guidance - version 6).

Example: choice of price index

The choice of price index by which to adjust the allowable costs under a fixed price contract can have an impact on the price payable under that contract. This example illustrates this impact based on the application of three different indices.

A QDC requires the following inputs in the following proportions each year:

- Energy 25%
- Steel 25%
- Labour 50%

The estimated annual costs are £25 million and will be adjusted each year in accordance with a price index to reflect actual inflation. The contract profit rate is 10%.

Consider the following growth rates of three indices (these are for illustrative purposes only):

	Year 1	Year 2	Year 3
Consumer prices	**2.5%**	**4.0%**	**9.6%**
Producer prices (output)	**4.0%**	**9.0%**	**16.0%**
Weighted (input)	**5.0%**	**9.0%**	**17.0%**
• Steel (input)	5.0%	20.0%	15.0%
• Labour (input)	3.0%	2.5%	6.0%
• Energy (input)	8.0%	12.0%	40.0%

The growth in consumer prices is consistently lower than that of producer prices. Individual input price growth combined into a single weighted rates is similar, but higher than producer price output growth. However, there is a significant variation in the growth rates of the individual inputs.

Year	Base date cost (£m)	CPI	PPI(O)	Weighted input
0	£ 25	£25	£25	£25
1	£ 25	£26	£26	£26
2	£ 25	£27	£28	£29
3	£ 25	£29	£33	£33
Total allowable cost		£106	£112	£113
Contract price (£m) with 10% contract profit rate		£117	£123	£125

The contract price is lowest based on consumer prices, higher based on producer input prices and highest using the weighted input prices. It is important therefore to select an index appropriate to the contract in question, as an unsuitable choice may mean some costs are not reasonable in the circumstances as they are either too low or too high.

Example: double counting inflation

The MOD and the contractor agree the total estimated allowable costs under a fixed price QDC for five years of £100 per year with an assumed inflationary cost increase of 2 per cent year on year.

Year	1	2	3	4	5	Total
Allowable costs	£100.0	£102.0	£104.0	£106.1	£108.2	**£520.3**

The parties also agree to apply a variation of price (VOP) clause to adjust the cost by a price index reflecting actual inflation through the life of the contract. This places the inflation risk on the MOD. The actual effect of the VOP clause on the allowable costs through the life of the contract is shown below.

VOP inflation	0%	3%	4%	3%	1%	Total
Adjusted allowable costs	£100.0	£105.1	£111.5	£117.1	£120.6	**£554.3**

The VOP adjustment did not take into account that 2 per cent annual inflation had already been included in the estimated allowable costs. The costs have therefore been escalated twice: at the estimated 2 per cent year on year and additionally through using the VOP index which is determined by actual inflation. The table below shows the allowable costs reflecting actual inflation applying only the VOP index, and the effect double counting inflation had on the allowable costs of the contract.

Year	1	2	3	4	5	Total
Allowable costs with VOP only	£100.0	£103.0	£107.1	£110.3	£111.4	**£531.8**
With VOP and estimated inflation	£100.0	£105.1	£111.5	£117.1	£120.6	**£554.3**
Double counting effect	£-	£2.1	£4.4	£6.8	£9.2	**£22.4**
Cumulative impact of double counting		1%	2%	3%	4%	**4%**

11. In general, the use of output indices is preferable to the use of input indices. Output indices will reflect improvements in productivity in a sector. In times where inflation is being driven by price increases in particularly volatile inputs which the contractor has limited ability to reduce its exposure to, input indices may provide a more reasonable way of adjusting costs. Inflationary adjustment to payroll costs must be demonstrated as reasonable in the circumstances. If input and output indices are used, care must be taken to avoid double counting inflation. This requires the contracting parties to be satisfied that each index covers a different element of cost. If cost recovery rates subject to escalation are used to calculate allowable costs, then care should be taken to account for this if any further indexation is applied. This is to avoid double counting. The burden of proof rests with the contractor to demonstrate that there is no double counting.

Risk and uncertainty

12. Inflation risk is the risk that actual inflation differs from estimated inflation. The extent to which an inflationary cost increase, and therefore the inflation risk, is to be borne by each contracting party will vary. The relative exposure to inflation risk will depend on the choice of regulated pricing method and how any indexation is applied to the allowable costs of the contract. The contracting parties should reflect this in the determination of the contract profit rate which follows a six-step process and provides for a specific adjustment for cost risk which should therefore be considered when agreeing the treatment of inflation. Where the supplier takes the inflation risk, they should be compensated for this with a relatively higher contract profit rate. Where the MOD takes the inflation risk, this should be compensated for with a relatively lower contract profit rate. The treatment of inflation risk alone does not mean that the cost risk adjustment will necessarily be positive or negative, as other risk factors may also need to be factored in to arrive at a final position.

Example: Inflation uncertainty and the cost risk adjustment

This illustrative guidance is intended to assist in the understanding and application of the guidance. The cost risk adjustment should be agreed based on the circumstances of the particular contract and may differ from that which is shown in this example.

The parties to an existing QDC consider the effects that implementing a variation of price (VOP) clause using a fixed price should have on the step 2 cost risk adjustment.

The major single drivers of uncertainty for the contract are:

- the price of steel which was expected to trend upward over the life of the contract, with an estimated range of £150 to £850 per tonne due to uncertainty over future inflation;
- labour hours with an estimated range of 200,000 to 300,000 hours.

The allowable costs as estimated at the time of agreement reflected the forecast of the total cost of steel and labour. The estimate of the volume of steel required and labour rates were considered to be subject to relatively little uncertainty. These estimates are not affected by the choice of pricing method.

Uncertainty as to the accuracy of the estimates of steel prices and labour hours contributes to the risk that the actual allowable costs will deviate from the estimated allowable costs. It is agreed that the appropriate cost risk adjustment under a firm priced contract would be 10 per cent, as the contractor holds all the cost risk.

A fixed price with a VOP clause will result in the estimated allowable costs related to steel being adjusted in accordance with an index which measures the actual price of steel. This mitigates the risk of variations in the price of steel impacting the contractor's profits under the contract. A CRA must be agreed that reflects the reduction in risk under the fixed pricing method compared to a firm price. This does not affect the underlying cost risk, but determines how the risk is distributed between the MOD and the contractor.

The parties agree that the contribution the range of uncertainty makes to the overall risk of the contract means the CRA should reduce from +10 per cent under a firm price to +5 per cent under a fixed price. The lower CRA reflects that the extent to which estimated allowable costs may vary from actual allowable costs has been reduced by the inclusion of the VOP clause. Had all risks been mitigated in full and all cost risks had been transferred to the MOD, the appropriate CRA would be minus 25 per cent.

Regulated pricing methods

13. The effect of inflation on a contractor's costs may be reflected in the price of a QDC or QSC through the allowable costs. The approach to its inclusion will depend on the regulated pricing method which determines whether the allowable costs are estimated or actual, and whether those costs may be adjusted. There are six regulated pricing methods set out in regulation 10(1).

14. Firm and target pricing (costs estimated at the time of agreement): The allowable costs for determining the price payable under a firm or target price contract are estimated at the time of agreement and do not change unless there is a contract amendment. Any inflationary impact on costs that is to be included in the allowable costs must therefore be reflected in the estimate at the time of agreement. This places the cost risk that arises from inflation uncertainty with the contractor as actual inflation may be higher or lower than estimated. The extent to which costs rise above or below that which was estimated at the time of agreement will be reflected in the actual contract profit. The allowable costs guidance (H.1.4) explains that for a contractor's estimated costs to be allowable costs, the estimate should aim to anticipate the actual allowable costs the contractor will incur in performing the contract, taking account of risk or uncertainty. This will include selecting a rate or rates at which costs may be escalated, which should reflect the expected rate(s) of inflation of relevant goods and services. Increases in individual input costs that are above the relevant measure of output inflation and are in a contractor's control, for example certain rates of pay, may only be an allowable cost where they are accompanied by offsetting measures (such as productivity gains) to therefore keep the overall cost increase in line with output inflation.

15. Fixed and volume-driven pricing (costs estimated at the time of agreement which may be adjusted in accordance with rates and indices): The allowable costs in a fixed or volume-driven price are estimated at the time of agreement and may be adjusted in accordance with specified rates and indices. Inflationary impacts may therefore be either reflected in adjustments to the escalated costs with reference to one or more particular price indices, or embedded in the estimate. Inflation-linked adjustments through a variation of price (VOP) clause transfer more of the impact of inflation uncertainty to the contracting authority compared to a firm price. A4 and B1 of the allowable costs guidance states that inflation of costs or rates should be evidenced against an appropriate benchmark or index in order to be an allowable cost. The burden of proof remains with the contractor that costs are allowable. The MOD will need to be satisfied that the index used for adjusting the allowable costs is appropriate, such that future index-linked cost escalation is reasonable in the circumstances (see section on use of indices).

Table 1: Summary of the regulated pricing methods

Pricing method	Costs estimated at the time of agreement	Costs may be adjusted in accordance with rates and indices	Actual costs determined during the contract or after its completion	Description of risk bearing and risk transfer[2]
Firm	✓			The contractor bears the risk that variations in the actual Allowable Costs results in profits being higher or lower than estimated at the start of the contract, and is subject to the final price adjustment.
Target	✓			The MOD and the contractor share the risk that variations in the actual Allowable Costs results in price and profit being higher or lower than estimated at the start of the contract. The level of risk borne by each party will depend on the structure of the target cost incentive fee specified in the contract
Fixed	✓	✓		The level of risk transfer from the MOD to the contractor will depend on how any adjustment mechanism is specified in the contract, and is subject to the final price adjustment
Volume-driven	✓	✓		The level of risk borne by each party will depend on the MOD's ability to estimate volume requirements, the contractor's ability to estimate costs and how any adjustment mechanism is specified in the contract, and is subject to the final price adjustment.
Cost-plus			✓	The MOD bears the risk that variations in the actual Allowable Costs result in the price being higher or lower than estimated at the start of the contract. The contractor bears no risk in respect of the profit rate.
Estimate-based fee			✓	The MOD bears the risk that variations in the actual Allowable Costs result in the price being higher or lower than estimated at the start of the contract. The contractor bears no risk in respect of the total profits earned.

2 Adapted from "Cost risk and incentives in qualifying defence contracts: Recommendations to the Secretary of State for Defence" – SSRO

16. **Cost-plus and estimate based fee pricing (actual costs determined during the contract or after its completion):** The actual costs a contractor incurs may increase over time due to inflation, amongst other things. Increases in actual allowable costs due to inflationary pressure may therefore be reflected in the actual costs the contractor claims as allowable. The contractor should evidence to the MOD why any claimed inflationary uplifts, for example an increase in the cost of similar items from one year to the next, are reasonable, in line with relevant measures of inflation. Any such increases in actual costs over a period should be explained and the contractor should be able to demonstrate it has taken reasonable steps to mitigate the effects of inflation on the costs it claims as allowable costs. This might be, for example, by taking similar steps to managing inflation in qualifying contracts as has been or will be taken in relation to competitive MOD contracts or those with other customers.

17. The parties to a qualifying defence contract may agree that different regulated pricing methods are to be used for defined components of a contract. For example, a firm priced component may apply during the initial contract period, which is then followed by a fixed price component at a later point in the contract to reflect greater inflation risk in the later years.

Final price adjustment

18. Regulation 16 sets out the procedure for the final price adjustment (FPA). This adjustment may apply if on contract completion the allowable costs have varied to the extent that the contractor has experienced excessive profit or loss. The FPA only applies to contracts using the firm, fixed and volume-based methods. Where inflation is high and uncertain, this increases the possibility that a FPA may apply. If either party intends to make a FPA, the procedural requirements of regulation 16, including notification, must be followed.

Statutory reporting

19. The SSRO's contract report guidance assists contractors to prepare contract reports required by the regulatory framework (link). The guidance explains the information that contractors must report in the Contract Pricing Statement related to cost and price inflation rate assumptions which have been applied in pricing their contracts. These include the type of inflation assumption, the regulated pricing method to which it is applied, the use of any variation of price clause, the type of cost the inflation assumption relates to and a profile of the rate and the allowable costs that are linked to it. Details of the inflation rate assumption data inputs are set out in section 4 and Table 17 of the guidance.

20. The SSRO's reporting guidance on preparation and submission of supplier reports (link) explains the information that must be reported in the Estimated Rates Agreement Pricing Statement in relation to rates and indices. This includes indices that relate to inflation. The information required is a description of indices and rates used in calculating the estimated costs within the Estimated Rates Claim Report including for each of its source (including that source's version or date) and an explanation as to why its use was considered to be appropriate.

21. If a contractor's costs are affected by inflation after entry into the contract, this may impact on the actual and forecast information that the contractor provides in any subsequent Quarterly Contract Report, Interim Contract Report, Contract Completion Report, or Contract Cost Statement. The SSRO's guidance deals with each of these reports, respectively in sections 5 to 8.

Referrals

22. The Act and Regulations set out the matters that can be referred to the SSRO for an opinion or determination by the Secretary of State or the contractor in a qualifying contract or proposed qualifying contract. The main pricing matters which may be referred are the extent to which an estimated or actual cost is an allowable cost under a qualifying contract, in respect of which the treatment of inflation may be a relevant consideration. Other pricing matters which may be referred include the appropriateness of certain adjustments to the baseline profit rate, the amount of any adjustment in a target price contract and the amount of any final price adjustment. If referrals are made jointly by the Secretary of State and the (proposed) contractor, the SSRO may give an opinion on any matter related to the application of the regulatory framework to a qualifying contract.

23. The SSRO provides guidance on its website with respect to its referrals procedures. We encourage any party that is considering making a referral to engage with us before doing so in order that we can advise on the requirements as necessary.

Contact

24. Any queries concerning this document, or operation of the regulatory framework, should be directed to the SSRO helpdesk.

25. MOD staff should refer to the relevant part of the Commercial Toolkit and contact the SSAT with any queries in the first instance.

26. Our helpdesk provides ongoing support to contractors and the MOD. It operates from 9am to 5pm Monday to Friday. It can be contacted on 020 3771 4785 or by email at helpdesk@ssro.gov.uk. We can also arrange online video calls via Microsoft Teams.