

Inflation in Commercial Contracts

An Insights Paper by the Complex Transactions
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User Guide

This document has been produced by the Complex Transactions Team (“**CTT**”). CTT operates as an internal consultancy of specialist commercial experts that support teams across government to achieve their most challenging commercial objectives. This document was developed in response to frequently asked questions about inflation from government departments and arm’s length bodies (“**ALBs**”).

Who is this document for?

- Members of the Government Commercial Function (“**GCF**”)
- Commercial professionals within government departments and ALBs
- Public sector professionals involved in the planning, delivery or management of commercial contracts

Guidance on use of the Inflation Insights

- This Insights Paper is not Government or GCF policy, legal advice or formal guidance. The document provides insights on the approaches that contracting authorities may wish to consider and discuss as part of their public sector procurement planning or contract management
- This document is aimed primarily at experienced commercial professionals and assumes a good understanding of GCF best practice, Civil Service principles, legislation and procurement rules such as the Public Contract Regulations 2015. Users should read this document in alignment with the relevant GCF Playbook for Sourcing¹, Consultancy², Construction³ and / or Digital, Data and Technology⁴
- Each procurement requires a bespoke assessment of various factors to determine the appropriate approach, the rules that ought to be observed and the processes that should be followed. Procurement rules also apply to contract amendments therefore contracting authorities should seek commercial and legal advice prior to commencing any formal market engagement, procurement or negotiation
- This is version 1.0 of the CTT Inflation Insights Paper. We hope you find it useful. CTT regularly produces commercial tools, insights and guides. If your department or team requires more specific support, please contact our dedicated [mailbox](#).

¹ <https://www.gov.uk/government/publications/the-sourcing-and-consultancy-playbooks>

² <https://www.gov.uk/government/publications/the-consultancy-playbook>

³ <https://www.gov.uk/government/publications/the-construction-playbook>

⁴ <https://www.gov.uk/government/publications/the-digital-data-and-technology-playbook>

Introduction

A rise in inflation, together with the associated supplier cost increases, may erode value for money if contracting authorities do not assess inflation risk and implement an agreed approach prior to commencing a procurement. There are some contracts with low inflation risk which do not require indexation e.g. contracts with lower price volatility, or where the supplier is best placed to manage the risk e.g. short term contracts. In other contracts, particularly those which are longer term, the transfer of inflation risk to the supply chain can make the requirement unattractive to the market. It may lead to inflated bid costs, unsustainable bids or the need to review service charges during the contract term. The cost increases could escalate to the point where the contract becomes financially unviable or the service quality is impacted. Likewise, a contracting authority may also lose future benefits in a deflationary environment.

The application of open book contract management (“**OBCM**”) is key to ensuring the right level of scrutiny of a supplier’s costs and margins⁵. However, the implementation of OBCM can be resource intensive and may prove more costly if applied to the wrong type of contract or if the appropriate skills and capabilities are not available to provide ongoing support. The contracting authority should consider obligations on the supplier to demonstrate that it has implemented alternative solutions to manage its cost base and deliver efficiencies before indexation will apply e.g. productivity improvements, automation, supply chain review or assessing staffing ratios. Such measures may require additional incentivisation via pricing or performance management mechanisms.

Key Considerations

- Inflation assumptions, and impact should be clearly set out in the business case with the final approach approved by the appropriate governance
- The choice of index can make a significant difference over the contract duration therefore contracting authorities should use the most [appropriate index](#) for the service component(s) in scope
- Indexation should only apply where the supplier is managing pricing risk outside of its control for [cost elements](#) that are subject to inflation. The contract should clearly define the costs subject to review, the index and the adjustment mechanism. Contracting authorities should also consider the impact of indexation on other contractual cost elements e.g. [service credits](#), [liability caps](#) and [profit caps](#)

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https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/525282/ppn_open_book_final.pdf

- It may be more appropriate to apply the mechanism after the [initial stage of the contract](#) i.e. the first one to two years, depending on the service being procured, transition or migration period, and the nature of the market
- Exposure to inflationary pressures can be minimised by:
 - ensuring that suppliers complete a thorough [impact assessment](#) to quantify the cost pressures; or
 - conducting a [supply chain review](#) to manage input costs and build resilience e.g. by diversifying sources of supply
- Any agreed mechanism should be supported by the appropriate [contract provisions](#), which should be designed to work in a complementary fashion with [worked examples](#) where relevant to aid understanding:
 - this includes Change in Law, Open Book Audit Rights, Benchmarking and contract duration
 - exclusivity and termination rights can provide much needed flexibility for the contracting authority to adapt its service provision if needed to address cost increases
- The contract should incorporate additional controls to minimise the risk of unexpected price fluctuations particularly when using non UK indices e.g.
 - limiting the [frequency](#) of the adjustment e.g. annual increase
 - setting a [cap](#) on the price increase
 - process to provide for [revised or missing indices](#) and / or to replace [discontinued indices](#)
 - pricing adjustment or [clawback](#) mechanism in the event of [transitory inflation](#) or [excessive profits](#)

Indexable Costs

Prior to commencing a procurement or in-flight contract discussions, a contracting authority should take steps to understand the key cost drivers and identify indexable service and / or cost components. This analysis and the use of a should cost model will help contracting authorities understand their risk exposure. Suppliers are extremely adept at managing their cost base e.g. by replacing expensive resources with less experienced or cheaper resources. The contracting authority should therefore consider the supplier's ability to manage costs across its supply chain and whether it is truly out of the supplier's control. Market engagement is an opportunity to gather supplier insights and / or test an authority's indexation approach e.g. as part of its risk allocation discussions.

This paper will use a technology example but the principles can be applied to other contracts. A service for LAN / WLAN / WAN includes hardware e.g. cables, access points, switches,

routers and servers to facilitate connection by devices and end users to other LANs via wide area networks. There may also be staff costs associated with manufacturing and service management. The parties may therefore agree to use a combination of the Producer Price Index for the hardware cost elements, and a sub-component of the Service Producer Price Index, *Information and Communication* for the staff cost element. The global distribution of staff may need to be considered if they are subject to non-UK inflationary pressures. The parties may decide that it is appropriate to include specific country indices from national statistical institutes, or global indices which are readily available from organisations such as [Eurostat](#) and the [OECD](#). This is extremely high risk and should only be considered after seeking finance, commercial and legal advice. Contracting authorities should challenge suppliers to consider other ways of managing their costs in global labour markets, and ensure that they minimise their own risk exposure e.g. by reviewing the historical rates in the relevant location and including additional controls in the contract.

The contracting authority should also benchmark the service or cost components using market intelligence and, where possible, cross government data e.g. from the Cabinet Office [Markets, Sourcing and Suppliers](#) team. The Crown Commercial Service is also a useful source of market information and may provide further insight into the expected market response. Using the earlier LAN / WAN illustration, a source of pricing and spend information is the *CCS Technology Category - [Network Services 2 - Connectivity](#)*. It may show that while LAN and WAN equipment and access costs have been in decline, these reductions have not always translated to management costs.

Indexation Approach

Inflation risk should be carefully considered before, and during the life of the contract. If appropriate for the contract, the parties should agree the index that best represents the costs subject to inflation. There is a list of indices in the appendix. The chosen index may even be a 'composite index' based on a number of different indices as demonstrated by the example. The contracting authority can choose to implement a mechanism whereby the cost rise is a specified percentage lower than the chosen index e.g. CPI minus X%. This is a useful mechanism when the contracting authority wishes to incentivise a supplier to drive ongoing cost efficiencies throughout the term of the contract. Another alternative would be for bidders to submit an indexation proposal with their chosen percentage, which is then assessed as part of the cost evaluation.

The parties should seek to use data sources from The Office for National Statistics (“**ONS**”). Where possible, the chosen index should be classified as a National Statistic i.e. assessed against the Code of Practice for Statistics and deemed compliant. The indexation clause in the contract should state the official title of the chosen index, its identification number or code and the source of the index e.g. *Producer price inflation, UK: July 2022 Statistical Bulletin*.

The contract should be clear on whether the pricing is based on a defined unit e.g. 1TB of data storage, a specific amount of processing capability or length of time spent on project delivery. The start date for any indexation of pricing should be stated - this is important if e.g. the services have a lengthy transition period or a number of milestones before service commencement. The clause should also state how the adjustment will be calculated and how often the adjustment will take place. Contracting authorities can find an indexation clause in Schedule 15 (Charges and Invoicing), paragraph 5 of the Model Services Contract Combined Schedules, version 2.0 (England and Wales)⁶.

Price Indices

GDP Deflator

The GDP Deflator is the measure of general inflation which reflects the prices of all domestically produced goods and services in the economy. This makes it a broader index than the [Consumer Price Index](#) (“**CPI**”), Retail Price Index (“**RPI**”) and [Producer Price Index](#) (“**PPI**”)⁷. A series for the GDP deflator in index form is produced by the Treasury from data provided by the ONS and the Office for Budget Responsibility⁸. The index is used to assess inflationary pressure on public spending.

Consumer Price Indices

The CPI is the measure of inflation facing households and it is the main measure of inflation for the UK economy. The CPI is the rate at which the cost of household goods and services changes over a specified time period. The CPI averages all the price changes for the goods and services in the “shopping basket” used to compile consumer price inflation indices. Suppliers may typically propose adjustments linked to the CPI, however, the CPI is a broad economic index that is unlikely to reflect the true cost of service provision. The CPI also works best for estimating annual price changes rather than monthly fluctuations⁹. The parties should therefore select a more specific index, or a sub-component of the CPI that is relevant to the subject matter of the contract e.g. [medical services and paramedical services](#). The use of a CPI sub-component is not without risk as the representative items in the shopping basket can

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https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1068142/England_Wales_version_MSC_-_Combined_Schedules_v2.0.docx

⁷ <https://www.gov.uk/government/publications/gross-domestic-product-gdp-deflators-user-guide/gdp-deflators-user-guide>

⁸

<https://www.gov.uk/government/statistics/gdp-deflators-at-market-prices-and-money-gdp-september-2022-quarterly-national-accounts>

⁹ <https://www.escoe.ac.uk/new-data-and-new-challenges-for-consumer-price-indices/>

change. The indexation clause should also include an alternative e.g. all items of the chosen index, and / or a process to replace the index.

The Consumer Prices Index including owner occupiers' housing costs ("**CPIH**") is a more comprehensive measure of inflation. The RPI is a long standing measure of inflation that includes mortgage interest payments. The RPI is a legacy measure that no longer meets the international standards required to classify it as an official National Statistic. RPI is still produced and used e.g. in existing long term contracts or for pension scheme increases.

Business Price Indices

The PPI for manufactured goods measures price changes of goods bought and sold by UK manufacturers. The input price indices measure changes in the materials and fuels bought by UK manufacturers. The output price indices, referred to as "factory gate prices" measure changes in the prices of goods produced by UK manufacturers. The PPI is often seen as an advanced indicator of price changes throughout the economy, including changes in the prices of consumer goods and services.

The [Services Producer Price Index](#) ("**SPPI**") is a measure of inflation for the services sector which is constructed from a statutory quarterly survey. The SPPI estimates the average price changes for services provided by UK businesses to other UK businesses and Government. The nature of the services industry can present challenges when collecting data to construct the SPPIs e.g. standardising service definitions and outputs across organisations, different measurement methods and datasets e.g. contract pricing vs. model pricing vs. actual transaction price. As a result there are a limited number of SPPIs for specified industries. These industries are drawn from the UK standard industrial classification of economic activities ("**UK SIC**"), which is divided into 21 main industry categories from A to U. The service sector makes up 11 of these sections, some of which are used to produce the [aggregate SPPI](#). The table in the [appendix](#) lists the industries with links to the time series for services that are commonly found in government contracts.

Industry and Commodity Indices

The ONS, and other bodies also publish indices aligned to specific commodities or industries. Such indices can be subject to fluctuation and susceptible to availability issues if they rely on the submission of survey data:

[Agriculture](#) - the Agricultural Price Index ("**API**") is a set of indices of the prices paid and received by UK farmers for agricultural goods and services. The API is designated as a National Statistic.

[Civil engineering](#) - there are a number of indices to consider - cost, tender price and output. There are also indices developed specifically for the infrastructure sector. These include the

Price Adjustment Formulae Indices (“**PAFI**”), which comprise 42 resource indices - labour, plant and materials. The PAFI is published online by the Building Cost Information Service (“**BCIS**”) and incurs a charge.

[Construction material](#) - The Department for Business, Energy and Industrial Strategy (“**BEIS**”) publishes monthly and quarterly [data](#) on selected building materials and price indices. This index is designated as a National Statistic. There are also indices for [construction output price](#).

[Domestic Energy](#) - BEIS publishes quarterly and monthly consumer price indices of fuel components in current and real terms. The data for this index is derived from a statistical release.

[Industrial energy](#) - BEIS publishes quarterly and annual reports price indices for industrial fuels in current and real terms, including and excluding the Climate Change Levy. The data for this index is derived from a statistical release.

[NHS](#) - The NHS Cost Inflation Index (“**NHSCII**”) is a composite index developed by the Department of Health and Social Care in conjunction with the ONS, NHS and the Centre for Health Economics at the University of York. The index is constructed from a number of data sources in the following categories - NHS providers, general practice, prescriptions dispensed in the community, and dentistry. This information is used to build and weight a ‘basket of inputs’ that represent the pay and non-pay related costs faced by the NHS to produce an overall measure of inflation. The NHSCII will be produced by DHSC and is published by the Personal Social Services Research Unit at the University of Kent as part of their annual publication, Unit costs of health and social care¹⁰.

Labour Market Data

The ONS, Department for Work and Pensions and HM Revenue and Customs collect and publish income and earnings data. Earnings refers to money received in return for employment, whereas income is total money received e.g. earnings, investments, benefits or pensions¹¹. The use of labour market data may be useful in understanding labour market tightness and inflationary pressures from the labour market. Labour market tightness relates to imbalances in the vacancy vs. unemployment rate. A labour market is “tight” when there are more vacancies than available employees. This tightening can lead to wage growth if e.g. there is increased employee leverage to negotiate higher salaries, or businesses compete for employees by increasing salaries. This can be inflationary if the wage growth is not offset by increased productivity.

¹⁰ <https://www.pssru.ac.uk/project-pages/unit-costs/>

¹¹

<https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/earningsandworkinghours/methodologies/explainingincomeearningsandthegenderpaygap>

[Average Weekly Earnings](#) (“**AWE**”) is the headline measure for changes in average earnings¹². The changes in earnings are presented in *nominal terms* i.e. inflation impact is not considered, and *real terms* i.e. adjusted for inflation using the CPIH. The ONS publishes AWE by [sector](#) and by [industry](#). The figure is calculated using survey responses from approximately 9,000 businesses covering around 13.8 million employees¹³. This can make it susceptible to changes in workforce size and composition.

[Average Labour Compensation per Hour Worked](#) (“**ALCH**”) measures the average cost of purchasing an hour of labour. It covers all costs of labour to employers¹⁴ e.g. salaries, bonuses and employment contributions.

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<https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/earningsandworkinghours/methodologies/explainingincomeearningsandthegenderpaygap>

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<https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/earningsandworkinghours/methodologies/aquidetosourcesofdataonearningsandincome>

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<https://www.ons.gov.uk/economy/economicoutputandproductivity/productivitymeasures/bulletins/labourcostsandlabourincomeuk/2022>

Appendix

UK SIC Section	Section Title	Notes
G	Maintenance of Motor Vehicles	Constructed from data used in the RPI for Maintenance of Motor Vehicles - based on retail rather than business sales. It also excludes maintenance contracts
H	Transportation and Storage	Calculated using prices collected in multiple categories - air, rail and road transport, freight, warehousing and storage, cargo handling and passenger facilities.
I	Accommodation and Food	Calculated quarterly using prices collected in canteen services in state education, industry and healthcare, and general catering
J	Information and Communication	Covers publishing and media, but also includes business telecommunications - fixed line and mobile telephony, computer consultancy services and computer facilities management activities - outsourcing and data processing
L	Real Estate	Constructed annually using real estate agent fees and the Investment Property Databank Index, a monthly property performance index - tracks retail, office and industrial properties
M	Professional and Technical	Includes legal services , accountancy , business and management consultancy , architecture, engineering, technical testing, advertising and market research. Index is calculated using prices collected in multiple categories
N	Administrative and Support	Covers a wide range of activities - key categories include employment agency activities , security services , industrial cleaning and secretarial services
P	Education	Index is calculated using prices collected in specific areas of study
S	Other Services	Index is calculated annually using prices collected in hire and rental of workwear, linen, towels

Additional Resources

GCF

[Risk Allocation and Pricing Approaches Guidance Note](#)

HM Treasury and Government Finance Function

[The Green Book: appraisal and evaluation in central government](#)

Knowledge Hub

[GCF Inflation and Supplier Relief considerations](#)

Open Book Contract Management

[Procurement Policy Note](#)

[Crown Commercial Service Guidance](#)

[NAO Report](#)