The Impact of Inflation within the UK Construction Industry and Fluctuation Provisions

Introduction

The UK construction industry is experiencing generational cost inflation causing wide scale issues for contractors, clients, and all stakeholders alike (*Martin, p2, 2016*). The persistent and unwavering inflation of cost is one of the most prominent issues the UK construction industry faces today. In order to preserve construction as a sustainable investment for developers and profitable for contractors, this issue needs to be addressed.

Despite construction material and labour costs in the UK continuing to escalate reaching a 40 year high (*RICS, 2021*), the UK's Tier 1 contractors have maintained strong order books. London's Tier 1 contractors are reportedly now turning down one in every two bidding opportunities, favouring two stage tenders (*Morby, Construction Enquirer, 2022*) which can provide earlier project involvement, design input and thus greater cost accuracy with reduced risk, often without the need for a competitive tender process. This comes following a period of great cost uncertainty and financial loss, primarily due to inflation caused by the Global Pandemic, Brexit, and international tensions (for example the conflict with Russia). Tier 1 contractors were amongst those most heavily impacted by these losses, having ill-advisedly signed up to single stage procurement and large scale, high value, long duration contracts (*Morby, Construction Enquirer, 2022*). As a result, the industry has seen a dramatic rise in the overall cost of construction, with contractors now allowing for the inflating costs within their quotations as a strategy to mitigate the risk of inflation.

Fluctuation Provisions can provide fixed price lump sum contracts with a 'bail out' in the event of cost inflation. The provision permits for the contract sum to be adjusted to provide monetary compensation in the event of costs fluctuating during the contract period. This can allow contractors to enter high value contracts with more cost certainty, without the need to price the risk of inflation into their bids. Offering tendering contractors this contract provision can grant clients a greater sense of surety that returning bids will be produced in line with actual market costs. This alleviates receiving inflated quotes that include the addition of contingencies to cover the risk of an unstable and inflating market.

In recent years, Fluctuation Provisions have been largely overlooked in the industry due to long periods of low inflationary risk. In fact, the use of Fluctuation Provisions in Joint Contract Tribunal (JCT) contracts had been so uncommon that when releasing the 2016 edition, the JCT decided to remove two of the three options from the standard form (*Yassin, Fluctuation Provisions - JCT, 2022*). The recent uncertainty of cost and risk of inflation must be cause for the industry to pay Fluctuation Provisions renewed consideration, as it is no longer reasonable for the risk of inflation to be solely borne by the contractor.

Aim & Objectives

To explore the background to uncertain and variable material and labour costs; why this is of current concern within the UK construction industry and the increased consideration of Fluctuation Provisions in building contracts.

1. Explore the reasons for inflation, its significance, and effect on the UK construction industry.
2. Outline the current issues with fixed price contracts, understand the impact of implementing Fluctuation Provisions on clients, contractors, and the UK construction industry as a whole, and incentives for uptake.
3. Discuss Fluctuation Provisions within JCT contracts, the different variations and to what effect they can be applied.

Inflation and the UK Construction Industry

Following the UK construction industry's recovery from the financial crisis of the previous decade (2008 Global Financial Crisis), inflation has been mostly stable and predictable without much cause for concern. However, since 2016 there have been a number of factors which have greatly impacted cost inflation within the industry. Largely due to Brexit and the Global Pandemic, international trade has increased in difficulty, and the availability of skilled labour has significantly reduced.

More than 240,000 workers left the industry between the first quarters of 2019 and 2022. This loss will most certainly be inimical to the target set by the Construction Industry Training Board (CITB) of 266,000 extra workers required for in the industry by 2026 (*How is the industry coping with post-Brexit labour changes, 2022*). The problems faced with labour shortages following Brexit and the Global Pandemic span even wider than the UK's construction industry, with the number of general job vacancies recorded by May 2022 reaching a record 1.3 million. Additionally, LinkedIn saw a 72% drop in the average number of applications per job posting between May 2021 and 2022 (*Britain's labour market is straining to recover from the pandemic, 2022*). It is clear from this information that productivity and motivation to work in the UK has dropped, which undoubtedly has an effect on the UK construction industry's output and efficiency. Furthermore, the diminished workforce has also pushed the cost of skilled labour upwards. According to the BCIS Site Wage Cost Index, within the UK construction industry between the first quarters of 2021 and 2022, skilled labour wages increased by nearly 20%. Looking at their data going back to 2016, the steady rise in these labour rates is clearly visible (*BCIS Construction site labour costs , 2022*). With the labour shortages showing little sign of easing, the UK construction industry can expect further inflation in rates and overall construction costs as a result.

Furthermore, there are a number of other aspects influencing the volatile inflation still plaguing the UK construction industry. The rising cost and reducing availability of materials is causing widespread inflation affecting all stakeholders within construction. As well as Brexit and COVID, international tensions and conflict have been making trade deals increasingly difficult, and materials less attainable. Timber, steel, and fuel seem to be some of the materials most radically affected by inflationary pressures.

Many timber suppliers across the UK slowed production during the Global Pandemic, in an erroneous prediction that the UK construction industry would shrink during this period. In addition, the UK is one of the world's largest importers of timber, predominantly from Europe and largely Russia & Ukraine (*Timber Media, 2022*). The necessity to find new suppliers, unexpected increase in global demand, and fuel price hikes, all contribute to why timber prices rose 80% in the first half of 2021 (*Hodge & O'Meara, WBD, 2022*).

The cost of steel also saw an inflation of 77.4% in 2021, with comparable factors to timber playing a part (*Hodge & O'Meara, WBD, 2022*). China has been the world's largest producer of steel, and with its own complications with COVID and international relations, supply has greatly reduced. European steel mills were also hesitant to restore production output hastily enough, causing a sizable gap in supply relative to global demand. In addition, due to the rising concerns with ore shipments from Brazil and uncertainty as to the upcoming scale of demand, steel mills were reluctant to recommence production fully (*Frame Fix - Record High Steel Prices, 2022*). Pressures from other industries such as car manufacturing also caused a negative knock-on effect on the inflation of steel prices in the construction industry. Similarly as with timber, the rising fuel costs have had a great impact on the cost of steel, with transport being a costly factor of its procurement.

There are a multitude of inflationary factors affecting the UK construction industry today. However, all project and industry stakeholders as well as different industry sectors, will be affected by inflation in varying ways. Presented below in Figure 1 is a visual representation of Consumer Price Inflation, with the two spikes visible between 2014 and 2022 displaying the effects of the aforementioned global issues. The sharpness of the spike between 2021 and 2022 represents an ongoing period of almost unprecedented inflation, posing problems that most industry professionals will likely not have faced in their working life (*Green, The RIBA Journal, 2022*).

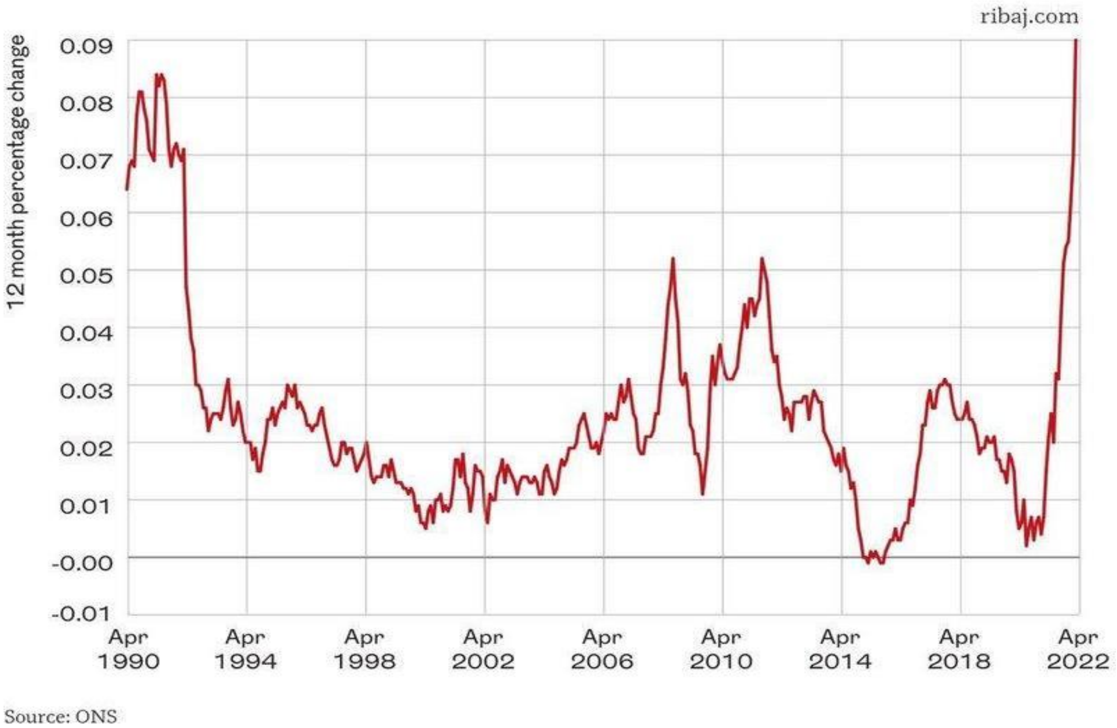


Figure 1 – Consumer Price Inflation (*Green, The RIBA Journal, 2022*

The Consumer Price Index (CPI) measures the change in price of goods or services consumed by households. Although this is not directly related to the UK construction industry, inflation which effects the general population and economy to this degree of severity undeniably has consequences to an industry only as good as the people it employs, such as construction. Notwithstanding the consideration that the construction industry makes up 7% of the UK's GDP (*Government Construction Strategy, 2011*). In addition, inflation which affects the consumer and households holistically will have a direct impact on the cost of labour and wages.

Effects on industry stakeholders and building contracts

Contractors within the UK construction industry, whatever their scale, are on the front line for the risk of cost inflation. Due to the nature of the industry and project deadlines, contractors aim to retain reliable and consistent supply chains. However, during the recent times of unprecedented uncertainty, supply chains have been struggling to predict the direction of the industry or meet its unexpected demands. For an extended period during the Global Pandemic, many builders' merchants, fabricators, and material plants were forced to close (*Frame Fix - Record High Steel Prices, 2022*). The subsequent halt in supply of materials left construction projects running the risk of being delayed or left incomplete, and as a result, contractors were in danger of being in breach of their contracts.

Following on from the Global Pandemic, the main issue facing the UK's contractors has been cost inflation. Many of the larger contractors short-sightedly signed up to high value, long term, fixed price contracts, and as a result have been adversely affected by inflating costs. The typical strategy of contractors within the UK construction industry has been to take on board the risk of cost inflation and bid for fixed price lump sum contracts, often through a competitive single stage procurement route. Their estimated bids would take on the then insignificant risk of inflation, whilst still managing to remain competitive for tender. During times of low inflationary risk, single stage competitive tenders offering a fixed price have been the common modus operandi of contractors within the industry. Contractors could provide lump sum competitive quotations including sizeable profit margins, without the need to factor in any unmanageable risk of an inflating market. Fixed price contracts typically run more smoothly during periods of low inflation or market volatility. They operate on a single lump sum price which the contractor offers to undertake the work and cover all risks accepted under the contract. However, there are a number of risks borne by the contractor upon signing a fixed price contract, the primary risk being that of cost inflation should the contract not include a Fluctuation Provision. All project costs at the date at which the contract is signed are thereby fixed for the duration of the project, providing the client with a greater element of cost certainty whilst simultaneously exposing the contractor to market risk. (*Fixed price Contracts, 2021*).

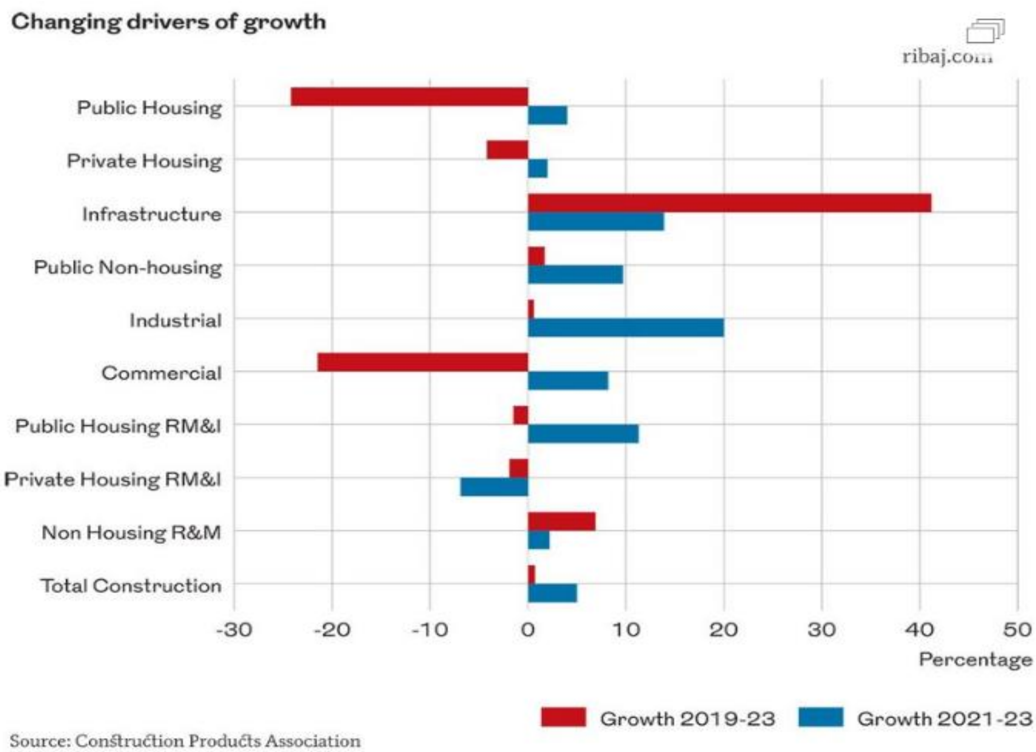
Entering fixed price lump sum contracts during periods of high market inflation has caused substantial financial damage to the UK construction industry's contractors. By 2022 the increase in the cost of standard materials had leapt from 15% to 110% (*Corbett, 2022*). Without any provision offering compensation, contractors involved in fixed price contracts are obligated to continue to procure the materials, labour, and maintain progress of work as signed up to in the contract, regardless of cost inflation. Any gulf in cost caused by inflation, compared with that quoted in the contract must be absorbed by the contractor, often considerably increasing their risk of exposure to liquidation. The larger scale contractors and projects have been those most adversely affected by the harsh increases in costs. Specifically, the projects most adversely affected by these significant and unexpected increases in costs were those that required high quantities of materials such as timber, steel, or oriented strand board (OSB) which jumped over 500% in price (*Outram, 2022*).

Despite the initial losses affecting the industry's contractors, the effects of cost inflation spread wider, as contractors bake contingency into their bids to provide some makeshift countenance against market inflation. The losses absorbed by contractors due to these inflationary pressures have not come without consequence. According to Arcadis' Tender Price Index, construction bid prices for London increased 6% in 2021 and a further 5% in 2022. This is expected to continue to rise by 5% year on year up until 2025 (*Morby, Construction Enquirer, 2022*). Contractors augmenting their tender prices in order to cover the risk of inflation are jeopardising the effectiveness of competitive tender processes and skewing the accuracy of tender prices.

Furthermore, Aecom research shows that Tier 1 contractors are turning down the opportunity to bid on half of all tenders on the market in London. The focus now being on providing quality and value over price, with the contractors favouring two stage negotiated tenders over competitive processes (*Morby, 2022*). The larger London contractors have retained strong order books and have therefore become more project and procurement selective. They understand the volatility of cost in the current market, and what they can offer in lieu of affordability which can no longer be guaranteed to clients. The two stage procurement route has grown in popularity as contractors can benefit from early involvement in the feasibility and concept design of a project at RIBA Stage 2. This can enable experienced contractors to impart their knowledge of buildability and market conditions to the project team, likely saving on costs further down the line. Furthermore, this increased selectiveness from the large contractors over project and procurement routes has reaped benefits. In 2020 contractors won 23% of work bid, this rose to 33% by 2021 due to their increased caution and selectiveness (*Morby, Construction Enquirer, 2022*).

Currently within the UK construction industry, we are witnessing changes in direction of investment, shrinking sectors of development, and increasing cautiousness from clients. All of which are largely as a result of inflation and global issues (*Green, The RIBA Journal, 2022*). What may have recently seemed to be a profitable investment venture has since taken a ‘U’ turn. For example, commercial office space in London has not seen occupancy pass 42% since the Global Pandemic, despite the weekly average being 63% prior to 2020 (*Willems, 2022*), lowering the incentive to embark on office space development projects. Additionally, as can be seen from Figure 2 below, Commercial sector growth has declined roughly 20% since 2019, likely leaving investors at a loss.

Figure 2 – Changing drivers of growth within the UK construction industry (*Green, The RIBA Journal, 2022*)



Clients and developers within the UK construction industry have an interesting and often varying relationship with inflation. The direct effects of market inflation on clients and developers are largely dependent on the form of contract, scale, and duration of their projects. Within certain sectors of the industry, developers have been relatively protected against the effects of inflation. For example, residential developers were able to largely maintain their profit margins due to the 19.7% rise in house prices between the first quarters of 2020 and 2022 (*Pritchard, 2022*). Nonetheless, prospective developers and industry investors across all sectors must be naturally more vigilant during periods of high inflation.

Employers within the UK construction industry typically have two key goals: fixing their financial commitments and obtaining competitive costs. During periods of high inflation, these goals may not be mutually achievable (*Yassin, 2021*). To ensure best price on a construction contract, the risk of inflation should be taken on by the stakeholder best able to manage it (*Martin, p1, 2016*). Smaller scale inflationary risks such as local markets or supply chains might be manageable by the contractor, however it may not be realistic for a contractor to manage the risk of wider inflationary pressures which may be concerned with global events outside of the UK construction industry.

Large scale projects in the UK have commonly been procured through single stage competitive tender processes and operated on fixed price lump sum contracts. During periods of low inflation, this method typically leaves both contractor and client stakeholders satisfied. The procurement process would produce competitive bids, the client would feel value for money is achieved, and the contractor could apportion a relatively safe profit margin within. However, in a time of perpetual industry inflation and uncertainty, it is arguably no longer sustainable or prudent for contractors to sign up to fixed price contracts, nor can it be principally reasonable for clients to expect contractors to bear this risk, especially concerning high value projects with extended durations.

Fluctuation Provisions and JCT Contracts

The UK construction industry is currently enduring generational cost inflation following a period of consistent stability. Until now, comparable rates of inflation had not been experienced since the period between 1972 and 1980, during which construction costs rose by an average of 16% per year. The method of formulaic price adjustment was developed in the 1970s in order to combat this adverse inflationary pressure, as the industry required a timely and accurate method of calculating and reimbursing fluctuations in costs (*Martin, p2, 2016*). Furthermore, older forms of contracts often resulted in inaccurate fluctuation reimbursement and could be open to exploitation.

The modern Fluctuation Provision may take many forms, with JCT currently offering three differing options:

> Option A – allows the contract sum to be adjusted in the event of changes to taxes, levies and contributions required from the contractor.
>
> Option B – allows the contract sum to be adjusted in the event of changes to the cost of material and labour.
>
> Option C – allows the contract sum to be adjusted by formula, in accordance with the JCT Formula Rules.

(*Yassin, The Application of Fluctuation Provisions in JCT Contracts, 2021*)

The reasons for the recent disuse of Fluctuation Provisions within the UK construction industry are evident. The purpose of Fluctuation Provisions is to provide compensation by adjusting the contract sum in the event of inflation. In the ten-year period between 2006 and 2015, the average rate of annual inflation was less than 3% (*Martin, p2, 2016*). During periods of such stability, there is no demand for such a mechanism within building contracts. In contrast, due to the current alarming rates of inflation, today we are witnessing slow but definite renewed consideration of Fluctuation Provisions, as the industry is enduring various global pressures affecting the stability of the market.

Throughout periods of unrelenting inflationary pressures such as these currently being suffered, JCT's Fluctuation Provision Option B will likely be that of focus. Option B is most relevant as it affords the opportunity to adjust the contract sum in the event of changing costs to material and labour, as well as fuel. It operates on the market rates of each element at the base date of the project in question, which is usually 10 days before the return of tender. Fluctuation Provisions are usually calculated using published price indices (such as BCIS Tender Price Index), making the method of reimbursement more reliable. The use of recorded market rates at this set, pre-contract date, can alleviate potential exploitation of the contract provision and ensure that any compensation is properly calculated. It is important that accuracy of compensation relative to actual loss is not expected, rather, the renumeration is calculated by the deviation from market rates.

Fluctuation Provisions within JCT contracts can be further customisable, allowing for any specific material or labour to be specified within the clause as applicable. Furthermore, the contract parties are able choose how prescriptive the provision should be. On larger projects this may assist with contract negotiation and apportionment of cost risk, as materials included in high quantities (such as steel or timber) may be specified exclusively within the Fluctuation Provision.

Whether or not it is appropriate to include Fluctuation Provisions will depend on a number of factors. Including the scale and duration of project, market volatility, supply chain reliability and client budget. As contractors are decreasingly likely to sign up to fixed price contracts in the current market, the consideration of Fluctuation Provisions may prove to be an ideal compromise for both stakeholders.

Offering a safety net for the risk of inflating costs will incentivise contractors to take part in competitive tender processes for fixed price contracts, despite the market moving away from these procurement routes towards negotiated tenders (*Hodge, O'Meara, WBD, 2022).* This inflation reimbursement offer will permit contractors to price tenders lower and more accurately, in the knowledge that they will be compensated if prices rise. Obtaining competitive quotations based on actual market rates will afford the client more positive tender results, however they will then bear the risk of any movement in cost during the contract period. Contrastingly, clients and employers may be reluctant to implement Fluctuation Provisions as fixing financial commitments is often a primary goal. Nevertheless, regardless of whether the inflationary risk sits with the contractor, risk is still risk, meaning the cost will still be included. Either a Fluctuation Provision is utilised as a mechanism to deal with the risk of inflation, or the contractor will include an allowance within their lump sum quotation. Employers within the UK construction industry want to limit their cost exposure, Fluctuation Provisions do not guarantee this, however the benefit of procuring more economically priced tenders than otherwise would have been possible may outweigh the risks borne with inflation.

The benefit of Fluctuation Provisions to contractors is that they will no longer be responsible for managing the risk of inflation, enabling them to approach higher value and longer duration projects with more certainty. They will also no longer be required to estimate or include unmanageable inflationary risk within their quotations. This permits the accurate and competitive costing of tenders and may increase the appeal of large scale fixed price projects during times of adverse market volatility. The benefit of the provision's implementation is not entirely held by the contractor. Fluctuation Provisions do not operate by one-way compensation. For example, should costs of a certain element reduce sharply during the course of a project, the saving generated will be due to the client.

There are many complications when considering Fluctuation Provisions, varying with each form of contract and within each option provided by JCT. For example, should the contractor be delayed in completing the works, they will not ordinarily be entitled to benefit from the reimbursement offered by a Fluctuation Provision. In addition, each JCT option takes a different approach to its applicability after the project completion date.

Conclusion

Levels of inflation currently within the UK construction industry are the most severe experienced in half a century (*Martin, BCIS General Building Cost Index, p3, 2016)*. With all integral construction materials, fuel, and skilled labour harmfully affected, construction projects, contractors and developers are all in jeopardy of great financial loss. The management of risk caused by these inflationary pressures should be carefully considered before entering into any building contract. Therefore, mechanisms for balancing this risk between stakeholders must be thoroughly deliberated and considered.

With knowledge of the various factors causing market volatility and inflation, it is important to review the typical primary goals of industry investors: fixing financial commitments and obtaining a competitive price (*Yassin, Fluctuation provisions - JCT, n.d.)*. These key goals explain the popularity of single stage tenders and fixed price contracts, as they provide the client with competitive tender prices and relatively fixed financial commitments. However, during times of high inflation contractors are less inclined to embark on single stage tenders or sign up to fixed price contracts (*Morby, Construction Enquirer, 2022*). Should the client desire a competitive quotation, there must be a compromise with the risk of market inflation.

The implementation of Fluctuation Provisions would enable contractors to price works based on actual market value, rather than including contingencies for unpredictable inflation. This would in turn allow them to provide clients with the competitive quotations they desire. Nonetheless, as fixing financial commitments is so crucial to industry investors, many clients may shy away from Fluctuation Provisions, as they expose them to any sharp cost increases during the contract period. Provided they are suitably agreeable and applicable, Fluctuation Provisions offer a compromise with the risk of inflation between stakeholders, and the ability to be tailored to a project's unique requirements and constraints. The industry's Tier 1 contractors have been seen to move away from competitive tenders and fixed price contracts, therefore in response clients must consider Fluctuation Provisions as an incentive to potential tendering contractors (*Morby, Construction Enquirer, 2022*). Further investigation into the application of Fluctuation Provisions must be undertaken by Employer's Agents across the UK construction industry. Their implementation, applied specifically to materials and labour, or elements adversely affected by inflation may be the way to provide contractors with necessary reassurance when considering large scale, high value project commitments and competitive tender processes. During the previous occurrence of volatile inflation to this degree during the 1970s, the formulaic price adjustment method was developed to assist with inflationary risk management (*Martin, p2, 2016*). This is evidence in practice, that proper renewed consideration of Fluctuation Provisions is due, with a view to ease the industry during these unrelenting times of inflationary pressure.

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