Preparation of Fluctuation Claims

Practical Case in Civil Works and Infrastructural Projects

Presentation by
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FOR THE 2-DAYS NIQS WORKSHOP ON MANAGING CONSTRUCTION PROJECTS IN TURBULENT TIME

30th – 31St August 2023

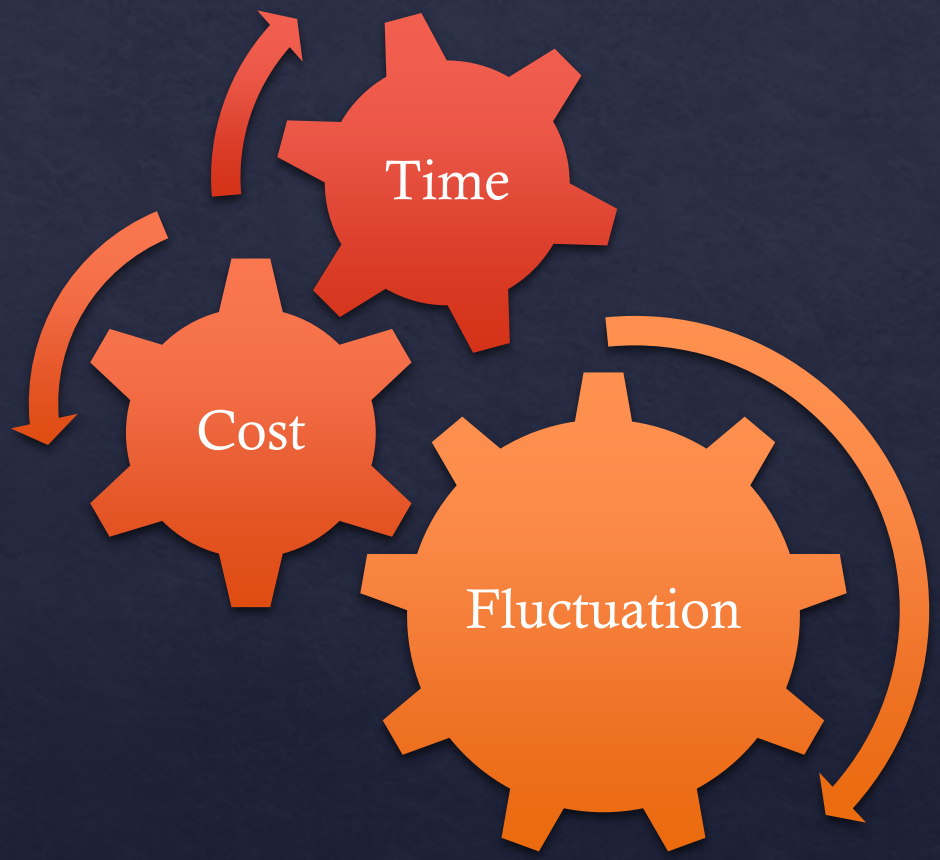
Opening Dilemma

- What would be the effect of Removal of Fuel Subsidy on Construction Projects?
- For your typical projects, what indices should guide your fluctuation calculations: Foreign Exchange Index or Consumer Price Index (CPI)?
- How best would you cover fluctuation affecting equipment cost, maintenance and spare parts?
- How far would Ex-Gratia claim go to address Fluctuation on contract without Fluctuation clauses in today Nigeria?

Introduction

Fluctuations are irregular shifting back and forth, up and down, in the strength or value of something.

Fluctuation claims are contractual remedies that tends to balance arising changes in the scope, duration or cost of a project.



Why Risk Fluctuation

Time

- If project duration lapses beyond predictable time

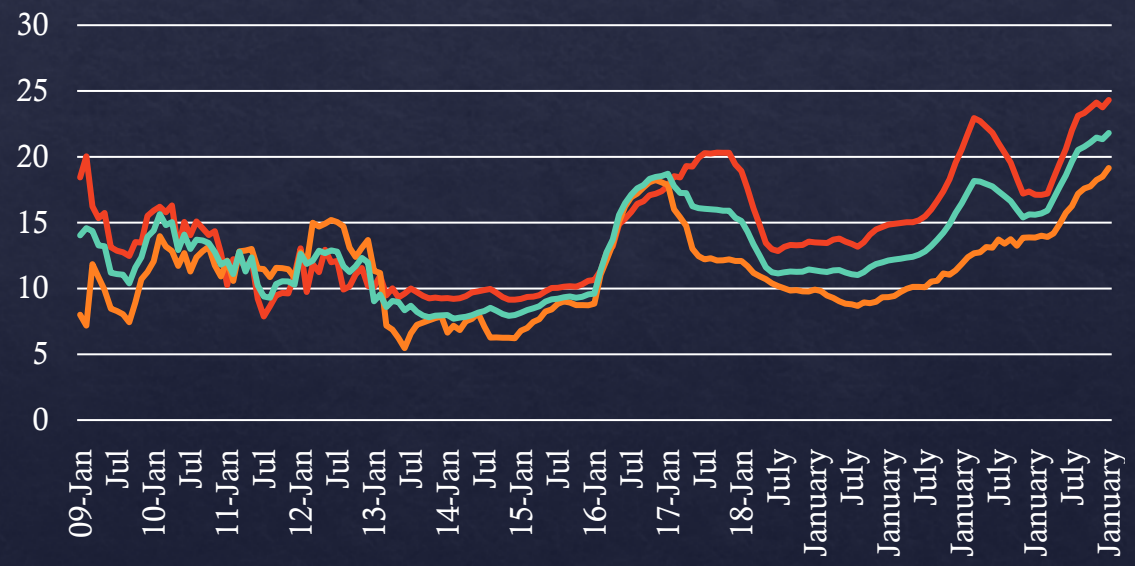
Service Problem

- Difficulty in calculating construction production process

Project or Project Parties

- To protect success of the project or existence of the contractor

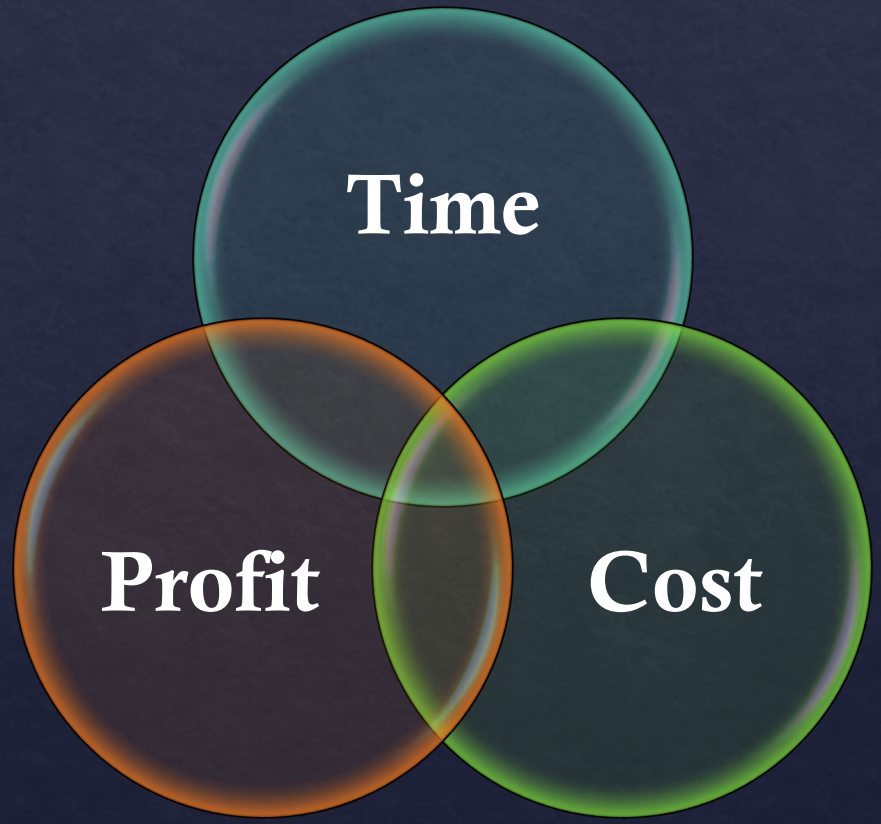
Fluctuation Trend



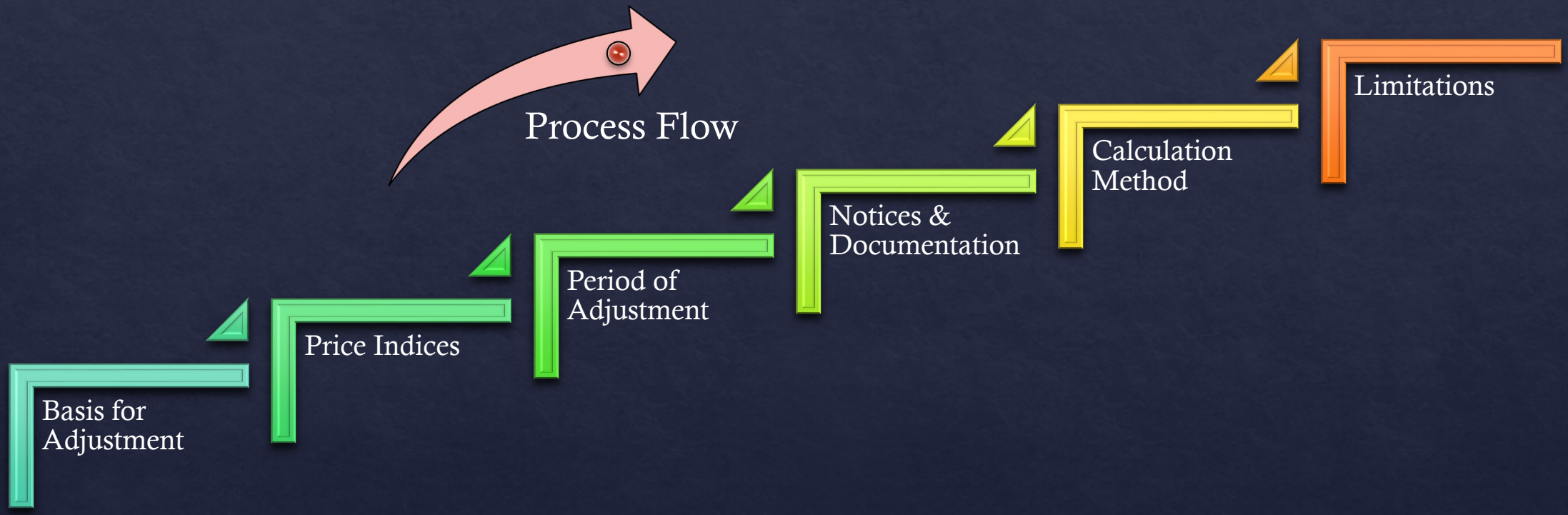
The Claim Bubble

Construction claims like bubbles are tricky to catch, and sometime require strict compliance to contract provisions to be successful.

Whether claim for Extension of time (EoT), Expenses or Profit, reasonable compliance to contract requirements and notifications are necessary before they can be truly considered and honoured.



Considerations in the Clause



Some Pointer Clauses

FIDIC 2017

- Clause 3
- Clause 13
- Clause 14
- Clause 20
- Clause 21

JCT 2016

- Clause 3
- Clause 4
- Clause 5
- Clause 9

BPP 2016

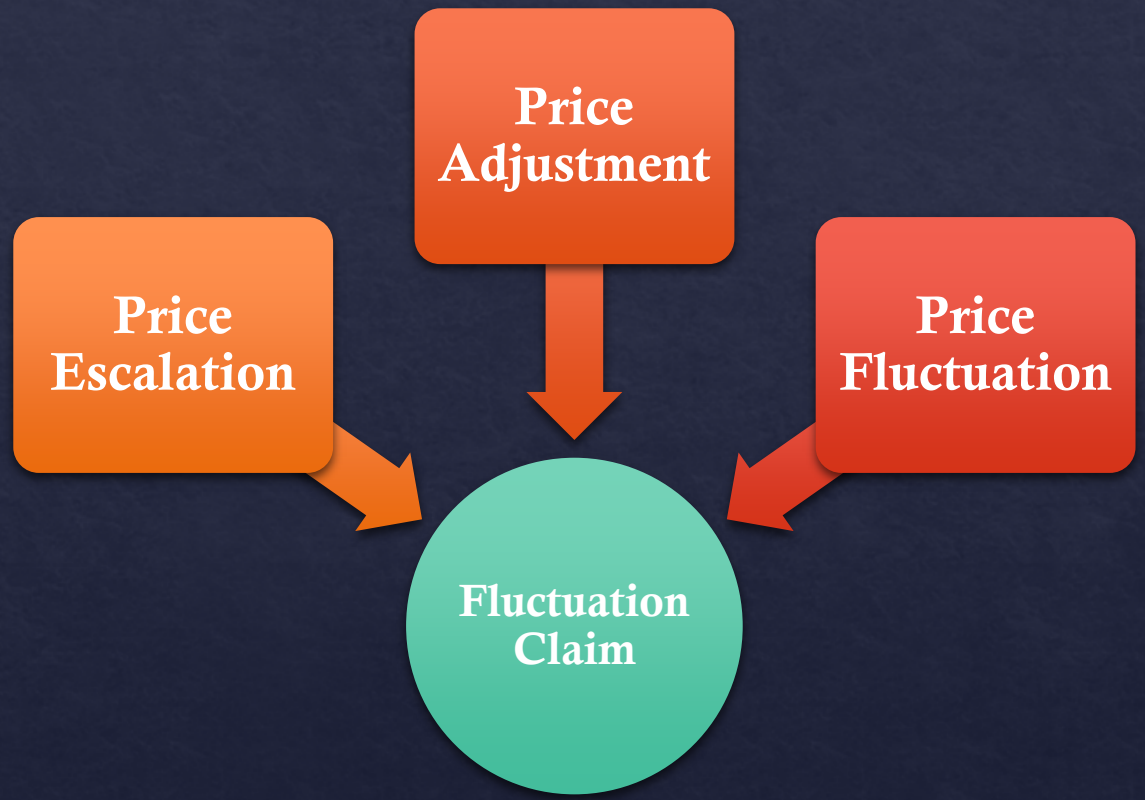
- Clause 21
- Clause 58
- Clause 59
- Clause 65
- Clause 66
- Clause 82

Different Roads, One Destination

Price Escalation Compensation for increase in prices of materials, labour etc.

Price Adjustment Marginal modification to contract price in fairness to the parties.

Price Fluctuation Compensation for changes in the price of materials, labour etc.



Approach to Fluctuation Claims

STEP / APPROACH	FIDIC 2017	JCT 2016	BPP 2016
Review the Contract Conditions	√	√	√
Identify Items to be Claimed	√	√	√
Establish Base Period for Claims	√	√	√
Calculate the Price Indices	√	√	√
Compute the Claims (Costs/Duration)	√	√	√
Prepare Claim Document / Submit	√	√	√
Prepare and Negotiate/ Update Outcome	√	√	√

Price Adjustment 1

$$Adjustment\ Factor = A + B\ \left(\ \frac{L_c}{L_b}\ \right)$$

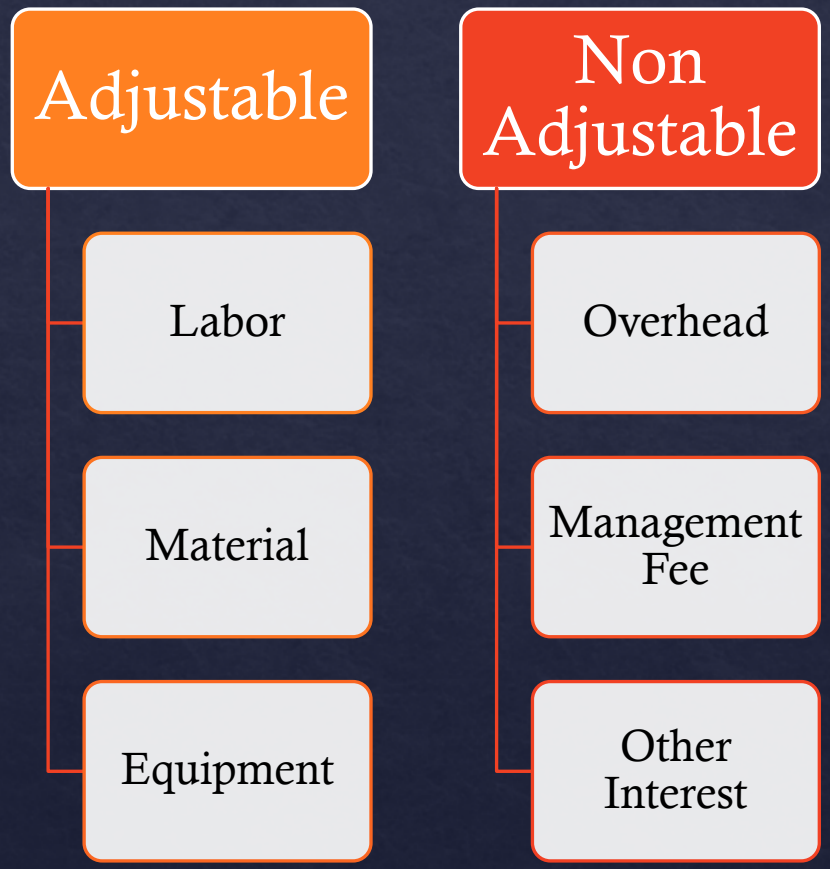
Where,

A = Fixed or Non adjustable components of the project cost; and

B = Adjustable components of the project cost;

L_c = Current Price Index

L_b = Base Price Index



Worked Example- Material Price Fluctuation

ITEM DESCRIPTION	UNIT	QUANTITY	RATE		DIFF	NO OF MOUNTH	AMOUNT
			BASIC (2017)	CURRENT (2023)			
Cement Portland BS 12	Ton	260.06	40,000.00	92,000.00	52,000.00		13,523,250.00
Diesel	Ltr	50,564	255.00	660.00	405.00		20,478,514.92
Sand	Ton	1,203	2,500.00	30,000.00	27,500.00		33,069,973.75
Aggrigate	Ton	7,137	5,500.00	6,600.00	1,100.00		7,851,058.05
Stone Dust	Ton	4,332	5,500.00	7,500.00	2,000.00		8,664,390.50
Stone base	Ton	22,088	5,000.00	7,500.00	2,500.00		55,219,837.50
Bitumen (50/100)	Ton	743.83	250,000.00	764,375.00	514,375.00		382,609,485.16
Reinforcement	Ton	31.42	300,000.00	570,000.00	270,000.00		8,483,130.00
LABOUR	NO	50.00	25,000.00	60,000.00	35,000.00	24.00	42,000,000.00
Total							571,899,639.87
							571,899,639.87

Price Adjustment 2

$$Adjustment\ Factor = A + B\left(\frac{P_c}{P_b}\right) + C\left(\frac{P_c}{P_b}\right) + D\left(\frac{P_c}{P_b}\right) + E\left(\frac{P_c}{P_b}\right) + F\left(\frac{P_c}{P_b}\right)$$

Where,

A = Fixed or Non adjustable components of the project cost; and

B-F = Coefficient of project cost elements;

P_c = Current Price Index

P_b = Base Price Index

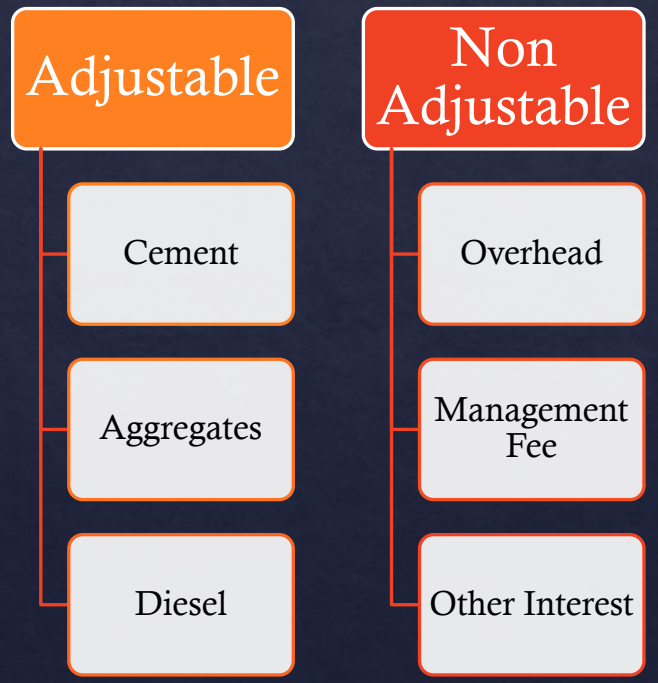


Table of Adjustment Data

Index Code*	Index Description*	Source of Index*	Base Value and date*	Bidder's related Currency amount	Bidder's proposed weighting
	Fixed Portion			N750,000,000	**A: 0.10**
DO	DIESEL	Local Market	N190/LT	N1,300,000,000	**B: 0.18**
CO	CEMENT	Local Market	N2800/Bag	N1,850,000,000	**C: 0.26**
AO	AGGREGATE	Local Market	N4100/Ton	N1,200,000,000	**D 0.16**
SO	STONEBASE	Local Market	N3000/Ton	N700,00,000	**E: 0.09**
RO	STEEL REINF	Local Market	N276/KG	N1,200,000,000	**F: 0.16**
LO	LABOUR	NJIC 2021		N350,000,000	**G: 0.05**
TOTAL				**N7,000,000,000**	**1.00**

Worked Example- Material Price Fluctuation

Index Code*	Index Description*	Source of Index*	Base Value and date*	Bidder's related Currency amount	Bidder's proposed weighting
	Fixed Portion			668,465,946.26	A: 0.27
DO	DIESEL	Local Market	N255/LT	24,125,787.83	B: 0.01
CO	CEMENT	Local Market	N40000/Ton	23,116,666.67	C: 0.01
AO	AGGREGATE	Local Market	N5500/Ton	44,343,098.25	D 0.02
SO	STONEBASE	Local Market	N5000/Ton	110,439,675.00	E: 0.05
BO	BITUMEN	Local Market	N250000/Ton	185,958,437.50	E: 0.08
RO	STEEL REINF	Local Market	N300000/Ton	20,946,000.00	F: 0.01
TOTAL				1,077,395,611.50	1

Conclusion

- Fluctuation offer opportunity as well as threat to the success of the project, estimators should evaluate it properly in order to make the right decision.
- Contract Administrators should include fair mechanism against fluctuation to cover both the employer and the contractor.
- Contract drafter should define Clear and Unambiguous Fluctuation Clause
- Contract Administration should ensure to establish Base point for evaluation of fluctuation claims.

Appreciation

Thanks for your attention

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