Clause and Effect: Strategic Economic Price Adjustment Clauses

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It is generally considered a supply management best practice to enter into long term agreements with suppliers. However if the supply manger did just that and prices started dropping, as seen in the last 2 years, then the long term agreement strategy would certainly be questioned as those doing spot buys might fare much better. The same questioning might also occur when prices are stable or increasing, since the extreme market volatility we have witnessed over the last 6 years have caused suppliers to build in excessive contingencies into long term pricing to cover their worst nightmares of cost increases in materials, currencies, and/or labor cost during the contract period. In either case the supply manager may be paying unreasonably high prices by using the long term contract strategy.

Rather than abandoning the long terms strategy the solution is to insert into the contract, provisions for an Economic Price Adjustment (EPA) clause which will provide for either upward or downward price adjustments in the contract price in accordance with the changes in mutually selected price indexes. The objective of this article is to present the supply manager with major points to consider in using and developing an EPA clause by providing an example of its use in a typical supply management situation.

The Situation:

The supply manager has received bids for a 2 year fixed price agreement on a molded plastic part. After doing a thorough cost analysis the supply manager concludes that the material cost used in making up the prices from the bidders appears 30 to35 % higher than the current prices for plastic resin. The Supply manager correctly assumes that the higher material prices are due to the volatility of the price of plastic resin and the requirement for a fixed price agreement which caused the bidders to add significant padding to their current material prices. In order to eliminate the suppliers' contingencies and to even get lower prices if the cost of plastic resin goes down from the current price, the Supply manager decides to issue a new RFQ with EPA provisions determined during the following process.

The Process

Step 1. Is an EPA clause appropriate in this situation?

In this situation the supply manager clearly saw a benefit in utilizing the EPA clause based on the following primary assessments:

- It was possible to clearly identify the price contingencies inserted by the suppliers.
- These contingencies could be removed from the current price and covered separately in the contract.
- There was in fact a high probability of volatility in major cost drivers in the market that will exist during the term of the agreement.

- The contract period was for longer than 6 months. In most cases the supplier will be able to lock in their costs when the contract performance is for 6 months or less.
- The supply manager's organization was willing to take the risk on possible price escalation as compared to the certainty of paying higher prices to cover the supplier's worst nightmare which might not be realized. If the organization did not want to take the risk, but did want to utilize the EPA clause, then hedging should be considered. The organization also wanted to benefit if prices for major cost drivers went down.
- The value of the contract is sufficient to make the insertion of an EPA clause of benefit to both parties and justifies the additional administrative efforts. Generally we would expect the contract to be over $50,000.

Step 2. Identify the index(es) which will be used in making adjustments.

Understanding that the index included in an EPA clause must be a reasonably accurate reflection of the changes in contract costs that the supplier will likely bear and after discussions with the suppliers it is agreed that using the US Producer Price Index (PPI) for "Plastic materials and Resins Manufacturing PCU325211325211 will accurately describe the changes in the material price.

- In this case only one index was selected since it was the area in which contingencies were being applied. Normally try to use as few indexes as possible, but as many as needed to remove the supplier contingencies. Common practice is to have one for labor and one for material. But if vastly different materials, currencies, and/or labor are being used that represent a significant portion of the price, then it will be necessary to select an index for each**.**
- PPI is just one of many sources of indexes. Just make sure the index you select comes from a reliable source that publishes the index publicly and at least monthly. Please note that Government published indexes such as PPI are preliminary for 4 months before becoming final.
- It is usually best to select an alternative index to be used in the event that the primary indexes are discontinued or changed**.**

Step 3. Identify the base point from which to calculate the change.

The Supply manager is certain that the suppliers obtained their prices for the raw material in December of 200X, so December 200X is selected as the base date.

- Clearly identify a base index or starting point comparable to the starting contract point or the point in time where the supplier established the price. This is the date at which you will determine the base index to be used for every calculation during the agreement.

Step 4. Identify times or events that will trigger price adjustments.

In this case it was decided to adjust the price at each shipment.

- Adjustments should be based on the most probable pattern of expenditure or commitment and frequent enough to protect the parties from fluctuations in price and/or cost not predicted at the time the original agreement was made but not so often as to create an administrative problem.

Step 5. Identify the percentage of the base price subject to adjustment.

The cost analysis showed that 25 % of the unit price is related directly to the cost of the plastic resin so the adjustable portion of the unit price is 25%.

- Typically, you should exclude from adjustment any areas of cost that the supplier has firmed up for the period of the agreement or areas over which the supplier has control. For example production and indirect labor rates as well as overheads are usually well known for future periods. If the supplier has firm price agreements for material or is using material from stock then no adjustments for that portion of the contract should be made.
- Generally we do not apply adjustments to the profit portion of the price. It should be noted as well that since the supplier is no longer taking a risk on the major cost elements due to the EPA clause, the supply manager should insist that the supplier reduce their profit margin.
- Most importantly we do not adjust any portion of the price where a contingency might still remain.

Step 6. Identify any limits on adjustment or amount of change needed to trigger an adjustment**.**

Because of the extreme volatility of the resin market, our EPA clause will not include a limit or trigger on any adjustment.

- You may of course identify limits on adjustments, a maxim on either upward or downward adjustments or both.
- You may also identify any minimum change required from the base date to trigger an adjustment. For example one could state that adjustment will be made only when the change in the index is grater than 2 %.
- The writer does not recommend limits or triggers because the supplier would most likely put in a contingency to cover the limits or trigger amount.
- You may also want to limit any adjustments to the original contract period.

Step 7. Establish the Economic Price Adjustment Clause and the calculation for the adjusted price.

For the situation described above, the supply manager developed the following clause:

> Twenty-five percent (25%), representing material, of the unit contract price of $200 each may be adjusted upward or downward based on the change in the PPI index for “Plastic materials and Resins Manufacturing PCU325211325211 from the base period to the month preceding the month in which the shipment was made. The base period for calculating the change will be December 200X. The adjusted unit price will be determined for each shipment by applying the following formula:
>
> [1]Adjusted Unit Price = $[(Y/Z)*S(P)] + [(1-S)*(P)]$
>
> Where
>
> z = Index for Base Period
>
> Y = Index for month preceding the month in which shipment was made
>
> S = Percentage of Price Subject to Adjustment
>
> P = Base Unit Contract Price

In the event that the selected index is discontinued, the supply manager and seller will mutually agree on a replacement index. If a change in the index occurs between the preliminary data and the final published data, then the appropriate credit or debit will be given at the time the final data is published.

[1]It is noted that the equation could be simplified but in this form it is easy to see the part of the price that is adjustable and the part that is not.

- If several elements of the price are adjustable the above formula can be repeated by changing "Z", "Y" and "S" and adding up the changes occurring from the base price to obtain the final adjustment for the period. Or alternatively a composite base index can be develop for "Z" and "S" and composite changes calculated and inserted for "Y".

Step 8. Always include in the agreement an example of how the calculation will work.

Example of Economic Price Adjustment Calculation for Plastic Housing Agreement XXXXXX.

In this example 5,000 units at a base price of $200.00 each were shipped in April of 200Y. The index for the Base Date of December 200X was 159.1. The index for the month preceding the shipment (March 200Y) was 164.3.

Adjusted Unit Price = = [(Y/Z)*S(P)] +[(1-S)*(P)]
Where
z = Index for Base Period = 159.1 in December 200X
Y = Index for Adjustment Period = 164.3 in March 200Y
S = Percentage of Price Subject to Adjustment = 25%
P = Base Unit Contract Price = $200

Calculation
[164.3/159.1 x .25($200)] + [(1 - .25)($200)]
(1.032 x $50) + $150
= $51.63 + $150
= $201.63

The total price for the 5,000 units scheduled for shipment in April is $1,008,150. The economic price adjustment is an $8,150.00 increase.

Conclusion:

In the situation described above, if the supply manager had not included the EPA clause and therefore the supplier kept in his 30% contingency on the material for the two year period, the 1st shipment would have cost $1,075,000 or an increase of $66,850 over the adjusted price with the EPA clause. Of course it could go the other way if the index had increased over 30% the supply manager would have paid more than the original price with contingency built in. But, as also often happens in volatile markets, the index for the adjustment could also have gone down even below the base index resulting in additional savings to the supply manager.

This of course was a simple case. Many situations requiring the use of EPA clauses can be complex and of course will need to address additional issues such as contract changes, but by following the basics described herein, the supply manager has another powerful tool for continuous improvement that can be implemented immediately.

Web Site Reference

Escalation Guide for Contracting Parties
http://www.bls.gov/ppi/ppiescalation.htm

DFARS 252.216-7000 Economic Price Adjustment--Basic Steel, Aluminum, Brass, Bronze, or Copper Mill Products.
http://www.acq.osd.mil/dpap//dfars/html/current/252216.htm