Price Review Mechanisms
For multi-year contracts in MRO

– Paul Mazlin
Introduction

When companies undertake tendering events, a significant focus is on pricing and cost reduction as you might expect. However, for a typical three year contract, improved pricing might only apply for the first twelve months leaving the remaining two years of the contract to be governed by the Price Review Mechanism (PRM). If the volume remains constant then the price review mechanism will govern at least 66% of the contract value as illustrated below. Yet in industry, we do not see a significant focus on PRMs given the power they wield over the contract value. In fact, often we see quite the opposite with the PRM being an afterthought to the main game of obtaining here and now price reductions. This white paper seeks to inform readers about some of the theory and best practice around PRMs and some of the most popular value destroying strategies and tactics to look out for.

This example illustrates that for a three year contract, ~68% of spend is controlled by the PRM – ie all spend in 2013-14. The example is based on an annual spend of $10M and a price increase of 5% per year, assuming that quantity remains constant. If quantity is growing, then the proportion controlled by the PRM can increase substantially making it even more important.

1. **Lose now, gain later**: Pitching prices lower to win the tender then recouping the lost margin later via the PRM.
2. **Ambiguity**: PRMs that are poorly defined leading to ambiguity in the suppliers favour. An example of this is when a PRM is described in words rather than as an algebraic expression.
3. **Diversion**: PRMs that include indices that are not highly correlated to their input costs but which can be relied upon to increase prices – eg the consumer price index (CPI).
4. **Smoke & mirrors**: PRMs that are completely opaque and thus beyond commercial scrutiny such as a list minus pricing structure where the list price is “secret” and cannot be viewed.
5. **Bamboozle**: PRMs that are so complicated that they bamboozle the customer into acceptance.
6. **The only way is up**: PRMs that only rise but never fall.
7. **Rate of change arbitrage**: This tactic is to use an input to the PRM that moves a lot faster than the cost base to create a type of arbitrage opportunity until the supply chain costs catch up.
8. **Data and statics**: The choice of data source and various statistical methods can be used to skew the value of input data to a PRM. For example in iron ore does one use the contract price or the spot price? In foreign currency, do you use the rate from a bank or from an independent data provider? And which method of calculation is to be used ie the spot price, simple average, moving average, exponential moving average – and over what time frame? All of these elements can greatly influence the functioning of the PRM and should be taken into account.

On the supplier side, a poorly constructed PRM can also be disastrous. By way of example, while working with a mining contractor in July 2008, oil shot to $US145/
barrel. As expected, the price of diesel also shot up and the contractor scrambled for their PRM with the hope of passing on the extra cost to their customers. To their horror, their PRM only allowed them to increase prices every four months and only in line with the Australian Bureau of Statistics (ABS) Producer Price Index. Further, the ABS Producer Price Index moves slowly and is an average of many costs – not just the fuel. The result was massive losses which would have broken the company, had they not been permitted to declare Force Majeure (Force Majeure is traditionally declared after natural disasters – not manmade economic disasters). All this drama was purely the result of a poorly designed PRM that did not allow them to adequately pass on input pricing shocks such as this. In this example the PRM did not accurately match the input costs of the service being provided nor did it include any provisions for passing on extreme cost increases. This left the contractor exposed to large and unexpected risks that were way beyond its control - a painful lesson in risk management.

The 2008 oil price spike rewarded those with solid PRMs by allowing the increased costs to be passed on to customers but many companies were left fully exposed only to see their profits rapidly evaporating and losses begin accumulating. Renegotiating with customers or attempting to declaring Force Majeure became the only option for many companies in the mining and transport sectors.

Price Review – The Theory

So what is a PRM trying to achieve? If you consider that a tender process essentially results in an agreement with a supplier on their margin, then a PRM is an attempt to lock in that agreed margin over a longer period for which it is not practical to fix prices – ie three or more years. The theory is that the PRM will preserve the benefits from the sourcing exercise, rather than see them slowly erode over the subsequent years of the contract. We could avoid needing a PRM entirely if we just created a one year fixed price contract. However, this is not practical due to the significant effort required to conduct a tender process and implement a supply contract. Secondly, by offering a three year term, the volume of spend is aggregated and this becomes more attractive proposition to suppliers who will then hopefully be encouraged to provide competitive pricing.

PRMs can also be thought of as a risk allocation mechanism. When a supplier agrees to a fixed price period they are essentially taking on all the pricing risks in their supply chain even if their costs dramatically change. To accept such risks, companies typically add a significant risk premium. In our experience, a better way to address this type of situation is not to expect suppliers to accept significant unquantifiable risks but instead, to collaboratively design a PRM that allows suppliers to pass on or share this risk and in the process, minimise or eliminate the risk premiums.

A typical method of managing risks is to set tolerance bands for the various indices or data used in the PRM. Contractual wording can then establish that a price review event shall only occur if there has been movement in the indices or economic data larger than the predefined limit eg + -1%. The wording can also specify if the price review can occur at times other than the nominated price review periods if the limit is breached.

The aim of this exercise is not to shift all possible risks onto the supplier. Shifting all risk to the supplier typically results in the suppliers adding significant risk premiums or even losing money on a contract which leads to a drop in quality and service or bankruptcy in the extreme. A best practice PRM is equitable and allocates specific risks to the parties that are best positioned to manage those risks and therefore at the lowest risk premiums.
Types of PRMs

Best practice PRMs use algebraic formulas to model a product’s input costs using publicly available data such as indices from the ABS. Algebraic PRMs are optimal since there can be no argument from either party and thus the price can be reviewed quickly and easily without any negotiation or debate. However, algebraic PRMs are not always possible which is where the ‘open book’ style of PRM is useful.

Algebraic PRM Approach

The algebraic approach is to divide the price into its individual components and then consider the mathematical relationship between the major cost drivers for each cost component. A PRM can then be devised around these drivers and weighted accordingly.

Figure 3: Annual contract cost for a three year contract with annual price reviews after a sourcing event.
New price = Existing price \times (0.6 \times \text{Current wages index} + 0.4 \times \text{Current steel index} + 0.4 \times \text{Previous wages index} + 0.6 \times \text{Previous steel index})

Figure 4: A multiple index PRM for an item consisting of 60% labour and 40% Steel

Open Book Approach

MRO categories often contain thousands of different products such as industrial and electrical consumables and it is simply not possible to create an elegant algebraic PRM that will work for all items. In these situations, the ‘Open book’ method can be used. This approach operates such that the supplier must propose any price increases to the customer for approval. All proposed price changes must be directly related to specific supply chain price changes and often the supplier is required to present supporting evidence of any such claims – ie open their books for scrutiny. This approach puts the onus on the supplier to justify any price changes but this approach is much less robust than an algebraic PRM and each price changes request becomes a negotiation.

The ideal situation is if the supplier has a published list price or list prices published on their website. The significance of this is that since the raw list price is published and visible to the market, there will be competitive forces at work which will naturally act to limit price increases. In this situation, the supply contract can be setup as a simple list minus discount regime using the public list price as the basis. But if the list price is not publically available then this type of list minus approach becomes opaque and meaningless.

A recent example of this was found in equipment hire where the price list for the hire equipment was not freely published but instead, when each customer logs in to the company web site, the prices presented are automatically adjusted according to their agreed discount structure but the undiscounted list prices are not shown. So, in effect, the customer can never actually see the original list price and really has no way of confirming if their discount has been applied at all. While this system appears to be legitimate, it fails the test of commercial scrutiny in that there is no publicly available (and therefore competitive) price list and secondly, customers cannot verify that their discount is being applied correctly.

The Default PRM

The “default” PRM is simply when the supplier issues the customer a new price list whenever they see fit. This approach effectively abdicates all control over price to the supplier which is not recommended. Surprisingly, this approach is quite common in industry and is by far the best way to erode any value created from a sourcing event.

The price of any item consists of several individual components which typically have different cost drivers. When designing a PRM, it is useful to identify the price components and to understand the drivers behind them. The goal of this is to identify suitable published indices or economic data which directly aligns to the cost drivers. These data sources can then become terms in an algebraic PRM.

Any price must include the suppliers profit but most suppliers will not reveal their profits for obvious reasons and this is often a sensitive topic. While suppliers will probably not tell you their profit margin, they probably will tell you the percentage split between materials, labour and overheads. This provides a practical way to obtain the weightings for an algebraic PRM.

Conclusion

PRMs play a critical role in delivering value to the business from procurement activities and are an important supply chain risk allocation tool. Best practice organisations take the initiative early and seek to craft an algebraic PRM in conjunction with the supplier during the tendering phase. They aim to create a PRM that allows the supplier to minimise risk premiums but also to maintain their margin (but
not increase it) over multi-year supply contracts. The goal of a PRM is a win-win scenario rather than attempting to “bleed” the supplier which usually leads to a drop in quality and service levels or the supplier even going broke in extreme cases.

In summary, below are a few guidelines on PRMs which should see you well on your way to implementing contracts that deliver value to the business year on year:

PRM guidelines:

i. Where possible, insist on an algebraic PRM that is expressed as a mathematical equation with the initial values specified – not just words describing the equation

ii. Attempt to create an equitable PRM that allocates risks to whichever party is best positioned to mitigate them

iii. If an algebraic PRM formula is not possible, then consider an open book method but stipulate that all changes must be mutually agreed and place the onus on the supplier to justify any price changes with supporting evidence

iv. Keep an eye out for the various supplier tactics and strategies outlined in this paper

v. Use publically available indices where possible such as those published by independent bodies such as the ABS

vi. Take the time to understand any proposed PRM and the risks being transferred to your organisation – recall that more than two thirds of the contract value is dependent on the PRM

vii. Try to match the components of the price to the relevant cost drivers and reject PR mechanisms that are not directly linked to the cost drivers

viii. Do not accept a simple price list reissue as the default PRM – there is little point in having a contract like this as the supplier is not being held to account or provide value for money

ix. After a price review event has occurred and the supplier issues a new price list, check the new prices to ensure that the maths is correct and that the correct input values have been used
About the Author

Paul Mazlin

Paul Mazlin leads the Engineering and Capital Projects practice at Portland Group and has a background in electrical engineering and management consulting. Paul has advised clients on contracts that are often in the billion dollar range for industries such as oil refining, coal seam gas, mining, transport, manufacturing, chemicals, infrastructure, food and telecommunications.
About Infosys Portland

Infosys Portland is a subsidiary of Infosys BPO Ltd., a part of Infosys Ltd. Our mission is to make our clients successful by increasing their profitability through procurement and supply chain improvements. We are unique in providing services to improve efficiency and effectiveness across our clients’ complete procurement and supply chain functions, ranging from innovative, high-end strategy through to effective, low-cost operations and transactional processing. The resulting transformational benefits for clients include lower costs, reduced risk and improved service from client suppliers.

For more information, contact info@infosysportland.com

www.infosysportland.com

© 2014 Portland Group Pty Ltd. All Rights Reserved. Portland Group, a subsidiary of Infosys BPO, believes the information in this document is accurate as of its publication date; such information is subject to change without notice. Portland Group acknowledges the proprietary rights of other companies to the trademarks, product names and such other intellectual property rights mentioned in this document. Except as expressly permitted, neither this documentation nor any part of it may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, printing, photocopying, recording or otherwise, without the prior permission of Portland Group Pty Ltd. and / or any named intellectual property rights holders under this document.