Index Based Pricing:
Managing Risk and Profitability

Today, US companies use Index Based Pricing on more than $100B of products across various industries\(^1\). While most companies are forced to implement Index Pricing to hedge their raw material cost volatility, not all of them have robust processes to support index exposure and still fewer precisely plan and execute Index Pricing strategy which in turn costs them millions of dollars annually. As a result, it is estimated, that companies lose 2 to 4 percent of their margin\(^2\) because of either inefficient execution or outdated strategies for Index Pricing.

By definition, Index Based Pricing is the use of a market or raw material index (or group of indices) to calculate and regularly refresh prices. Certain industries like Chemicals, Metals, and Industrial Products are inherently cyclical in nature, and cost volatility of underlying raw materials have led to difficult and frequent price negotiations between suppliers and their customers. Index Based Pricing evolved as a mean to aid these contract negotiations and enable buyers and sellers to enter into longer-term contracts with fewer hassles. It helped suppliers protect their margins in volatile markets, reduced hassling negotiations and offered a transparent pricing mechanism.

However, Index Based Pricing may not always be the right answer for everything or everybody. At the outset it may appear to be a simple, transparent solution but it comes with its own set of challenges and executional complexities and if not implemented properly, can end up becoming a managerial nightmare. Across industries, we have seen companies adopt different approaches to execute Index Pricing. In several cases, companies either failed to effectively test the strategy, or, once executed, they seldom revisited the approach and as a result they ended up adding complexity to their pricing processes leading to areas of margin erosion.

Figure 1: Different forms of Index Based Pricing
While there are numerous approaches to Index Based Pricing, in our experience companies usually adopt one of the following three tactics:

1. **Single Commodity Tied**
   - Price of the final product is typically tied directly to one single raw material spot price
   - Application: Usually employed in situations where final product is heavily dependent on one primary commodity raw material
   - Price movement with Index

2. **Multiple Component Based**
   - Price of the final product is tied to a combination of indices based on the product’s cost components
   - Application: Usually employed in situations where the final product is made up of multiple volatile additives
   - Price movement with Index

3. **Fixed Forward**
   - Initial price is not dependent on index but subsequent price increases are tied to movement of a combination of indices based on cost components
   - Application: Usually employed in situations where the company wants to manage price increases at a product hierarchy level (instead of product level)
   - Price movement with Index

Source: Based on Monitor Deloitte review of leading practices

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\(^1\) Monitor Deloitte analysis

\(^2\) Monitor Deloitte analysis
Complexities and Challenges

When building or managing Index Price formulas, it is important to understand the various limitations and complexities of Index Based Pricing. From a formula creation perspective, it’s essential to carefully consider all of a product’s major cost elements. We have observed instances where formula creation was led by focused teams from Marketing that led to creation of formulas using a stack of indices which failed to accurately represent the complete product (and service) configuration for the customer. Often, this may happen due to the exclusion of a specific material index, or perhaps a missing service/labor component. Unfortunately, these exclusions can create the potential for actual cost increases to surpass the formula changes.

From an execution standpoint, one of the biggest Index Based Pricing challenges is the proliferation of formulas and Index-based deals. We have observed that typically once a company gets into Index Pricing with one (or a few) customers for a product line, it adopts a general readiness to enter into Index based deals with all other customers for that product line, irrespective of the customers’ size or strategic value. Furthermore, companies embarking on their Index Pricing journey often use inconsistent spreadsheet templates and, as a result, end up with hundreds or even thousands of variations. Although each permutation serves a purpose in its own right, the variety can lead to administrative overhead and potential risks associated with manual errors. It could also reduce company’s ability to effectively track formulas’ margin performance over time.

Index Based Pricing can present other challenges as well. For example, companies with inadequate processes and infrastructure typically struggle when updating existing contracts for the latest index movements. In other cases, companies have shown an inability to review and revise formulas in a timely and systematic manner. Alongside price protection limitations, price caps and other previously negotiated terms, these challenges can lead to continuous margin erosion.

Considerations and Best Practices

Index Based Pricing is typically seen as a cost-plus strategy, and for the most part this is true. However, that does not preclude indexing from facilitating a value-based pricing strategy in some cases. Even though the reference elements of index pricing are not inherently value-based, you should not disregard the value you provide to the customer and build that into the overall price setting and periodic review mechanism. There are two strong reasons why it may be in your interest to quote prices that contain an index:

1. When it is in your interest for input costs to be reflected in prices as soon as possible, and certainly no later than they are reflected in competitors’ prices. Any delay is likely to cause a gain in sales and share when input costs go up and sales become less, or even negatively, profitable. Similarly, a delay when input costs decline can cause losing sales (as customers wait to get the benefit of inevitable price declines) or losing share (as customers buy more from competitors who have responded more quickly).

Our Observation

In one particular instance, we observed a company in the Process and Industrial Products sector with several thousand customers and products. The company began with a few specific formula templates for their contracts. Over time, however, new customer contracts resulted in over 300 additional formula configurations – each tailored to meet a specific customer requirement. Eventually, the company was forced to hire dedicated resources to update their index values, a process that entailed identifying when each was ready, calculating the respective index changes, communicating those changes to customers and, finally, manually inputting new prices in ERP.

While Index Pricing was originally expected to simplify pricing mechanism, improper execution resulted in the opposite. Moreover, with this proliferation the company kept running into issues with keeping track of non-market adjustments to indices, and due to human intervention there were significant pricing / invoicing errors.
2. In some markets, companies must make commitments to customers in advance of knowing their costs, exposing them to risks that could easily overwhelm profitability when the input cost is larger than the profit margin that the firm earns. For example, if a logistic company’s customers expect contracts to be firm for 6 months forward but jet fuel price jump precipitously, they could be overwhelmed with cost unless they hedged their fuel. But the cost of fuel hedging may not be something the customer is willing to pay for, since perhaps the customer is an oil company that will benefit when energy costs rise. The customer prefers to “self-hedge” and there is no reason why the seller should want to resist that.

To develop and effectively execute an Index Pricing strategy, you should consider the following:

- **Customer Value and The Product Portfolio:** Challenge which customers and products truly require Index Pricing.
  - Your readiness to enter into an Index Pricing agreement should be determined based on customer’s size, margin and share-of-wallet. Typically, Index Pricing should only be leveraged with large, sophisticated customers with enough market power to warrant the use of formulas throughout the industry. You should strive to balance your formulas’ margin performance with your share of wallet.
  - Generally, Index Pricing should be applied to products where raw materials, feedstock, additives etc. compose a large portion of the final product. It is important to appropriately choose and weigh the right group of indices based on the end product. Material blends based on a Bill of Materials can prove effective in these situations. Also, ensure that you do not ignore freight costs and other service costs as part of your offering to the customer. Build non-material components into your formula to account for these additional costs and their corresponding value to customer.

- **Change Adoption:** It is imperative that business objectives align with your organization’s Index Pricing Strategy.
  - The portfolio of your products and customers tied to Index Pricing can no longer be included in the purview of periodic margin improvement objectives. Hence, each part of your portfolio should be carefully reviewed before attaching it to Index Pricing.2
  - From an execution standpoint, you also need to provide the structure and support to enable central planning, approval mechanisms and consistency in formulas which should be appropriately balanced with enough flexibility for Sales to ensure that they are effective during negotiations.

- **Execution:** If you are going to adopt Index Pricing, make sure you execute flawlessly. Based on our experiences, here are some of the leading practices for effective execution:
  - Mandate the exclusive use of approved indices and avoid one-off exceptions. Check if non-material components should be included and weight the cost components according to their actual cost contribution to the final product.
  - Most customers will ask for price caps. Ensure that these price caps go both ways, accounting for both positive and negative index movement.
  - Automate the process for retrieving indices and approval mechanisms. Plan for non-market index adjustments in any agreement’s wording and in any formula’s calculation.
  - Adopt a technology solution to manage formulas. Most ERP tools and Pricing software offer out-of-the-box functionalities that not only help you manage formulas but can also apply mass price changes, maintain your formula library, and drive consistency across the organization. To that effect, standardize external and internal forecasting reports to minimize administrative overhead.
  - Avoid entering into long term index agreements with customers. Market fluctuations and frequent product/process/raw material innovations are realities in today’s world. Any agreement older than two years should be reviewed in its entirety.

2 If a large portfolio of your products is tied to Index Pricing (over ~40%) you should consider leveraging commodity management tools and techniques (http://www2.deloitte.com/us/en/pages/operations/articles/managing-extreme-commodity-price-volatility.html)
Conclusion
There are several considerations to keep in mind when adopting an Index Pricing strategy. Companies should consider a holistic approach that looks at each aspect of formula development, application and execution as well as organization’s supporting people, process and technology.

Index Pricing Strategy

- What part of my product portfolio should be tied to indices?
- What criteria should I use to determine if a customer is eligible for Index Pricing contract?
- How do the selected products tie with my customer segments and overall customer strategy?
- Which market indices should be part of my formulas?
- How should the formulas be applied — list prices vs. customer specific prices, SKU or product line level?
- How much flexibility should the sales reps have in customizing formulas for customers?
- What kind of approval mechanisms and technology solutions would I need to manage these effectively?

Price Setting

- How do I accurately identify cost components?
- What should be the appropriate reference period for formulas?
- How do I determine appropriate index data sources?
- What should be my price increase/decrease caps?

Price Execution

- How do I train my salesforce to effectively communicate formulas?
- What should be my price increase frequency?
- How do I tie my formula refreshers to customer’s contract lengths?

To get the most out of Index Pricing, it’s important to carefully execute the strategy but also to continuously monitor its performance. While Index Pricing has a lot to offer in the long run, several pitfalls can erode its value along the way. As a business executive, here are the three things you can do right now:

1. **Challenge**: Ask your team when they last spoke to customers about the need for Index Pricing. Challenge the demand for formula-based pricing and the corresponding customer value it provides.

2. **Test**: Check if you have recently tested the pros and cons of using different indices, both across customers and products. What are the real financial trade-offs?

3. **Execute**: If you are going to engage in Index Pricing, are you testing new models and flawlessly executing on existing contracts?

Index Pricing can be a powerful tool to hedge risk and meet client demands, but be sure you are capturing the value you provide and not stepping down the slippery slope of unnecessarily unbundling your products. We have seen two to four percent margin improvement in companies that continually seek to answer these three questions.

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