



# Avoid the winner's curse

## Capture value through differentiated pricing

Most pulp and paper products are mass-produced. But even in this largely standardized industry, non-standard, or “one-off” customized offerings, such as corrugated containers in unusual shapes and sizes or bespoke board combinations, typically comprise 15-30 percent of a company’s overall production revenue. In fact, almost all pulp and paper companies make some kind of customized sales, often to important customers and in large amounts.

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Customized offerings represent opportunities to capture significant value through differentiated pricing: at the right price, they can make a major contribution to profits. Yet few pulp and paper companies are seizing these opportunities, either because they believe – wrongly – that all their products are commodities, they don’t know how to differentiate prices effectively for those that are not, or they don’t know how to expand offerings to differentiate products that are commodities.

Customized offerings are certainly difficult to price. Their one-off nature makes relevant market reference points hard to find, complicating the task of estimating their costs and potential margins at different price levels. Customers generally request a proposal from several vendors making for intense competitive dynamics, since these are “winner takes all” contests. Competing in them can be very demanding, too, because of the complexity of estimating costs and calculating margins.

As a result, pulp and paper companies tend to apply a one-size-fits-all, cost plus approach to pricing all of their sales, including bespoke work, even though the cost-plus framework rarely produces an optimal result. Departing from it completely would be difficult because of its speed and simplicity. Fortunately, pulp and paper companies can take steps to build on and enhance their existing cost-plus pricing

## *Complex pricing decisions are often left to sales representatives paid on commission*

processes and add significantly to margins with limited investment. This article discusses the shortcomings in typical cost-plus pricing models, details the possible refinements and explores extending their use beyond customized projects.

### Shortcomings of cost-plus pricing

The special challenges of developing bids for non-standard products emerge in a range of business contexts including construction projects, design-to-specification products and engagements, managed services, and landscape design. In most of them—including those in pulp and paper—managers use basic cost-plus pricing, which entails setting a price by adding a more or less standard profit margin on top of projected standard costs. While some form of cost-plus pricing may be appropriate for most customized deals, this basic form suffers from a number of intrinsic weaknesses.

### Cost estimates are inaccurate

Accurately estimating cost for products built to customer specifications is admittedly difficult, but inaccurate cost projections can have very unfortunate consequences. Underestimate your costs before adding your standard margin and you will likely win more deals, but your company will either lose money on them or make less than the expected margin. Overestimate costs and you will overprice deals and lose business that you could profitably have won. And if your costing appears erratic, with deals priced high or low apparently at random, your company can appear inconsistent to the marketplace, generating uncertainty and possibly unintended downward pressure on market prices.

A number of common practices lead to estimating inaccuracies. As pricing teams build up a list of the costs of materials for a particular job, they may use standard average costs that are either out of date or widely different from actual costs when the product is made. They may also apply fixed average costs for inputs in situations

where differences in cost for different inputs at different times can be large and predictable. Manufacturers often attach standard freight costs to estimates even though actual freight costs will vary according to the deal's particular shipping requirements (for example, full truck loads or expedited delivery) and the locations of the production facility and the customer. Habits of particular customers that create extra costs, such as regularly paying late or insisting on costly changes late in the production process, are also frequently ignored in the cost estimate.

Companies may form the habit of estimating costs inaccurately because they don't routinely monitor their estimating performance. Many businesses estimate the cost of one job and go straight on to costing the next, without comparing the actual costs of completing a deal to the estimates in the winning bid. These differences can be large. When a corrugated container manufacturer audited its performance on several large completed custom projects, it found that, although quotes for each job had been based on a margin estimate within a target range, actual margins on the jobs varied significantly beyond those target limits. Indeed, some of these jobs, considered major successes when won, were underwater after their actual costs of production were tallied.

A pulp and paper company learned a similar lesson when it examined its actual costs for 30 completed jobs. During the bidding process, the company based its estimated costs for each project on a specific machine path (say, using rotary die cutter #1 rather than #2). But in fact several of the projects took a different production path than originally estimated, leading to variances around the mean margin of between 30 percent and 40 percent in seven of the 30 jobs.

### Margins are not systematically differentiated

Using a standard "plus" in the cost-plus process is a second common shortcoming in pricing customized work. Companies estimate the cost

for a project or product and add their standard margin to reach a starting price, which they then flex up or down based on their “feel” for what price will win the business. But businesses can capture justifiable price premiums by basing the target margin instead on a systematic analysis of the deal’s particular characteristics—its size, the locations involved, competitive intensity, the customers’ satisfaction with past products and services, and their switching costs.

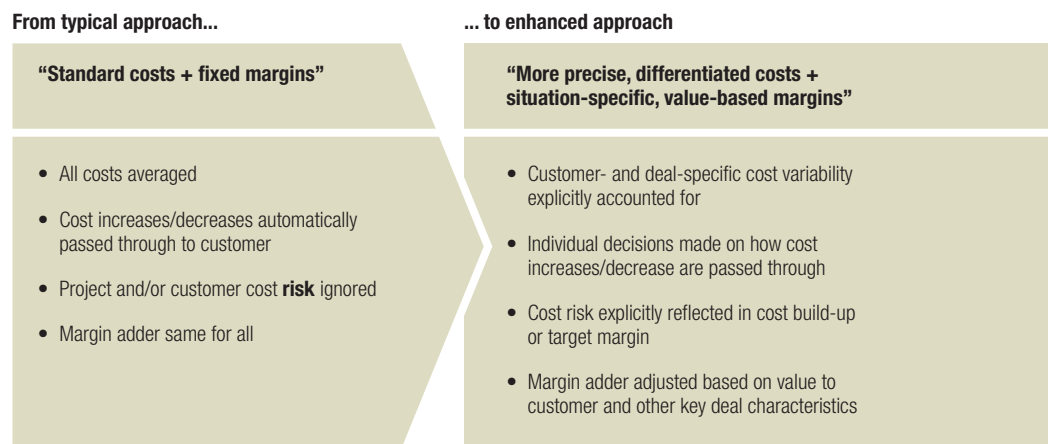
However, few companies are yet taking such a deliberate approach to setting margins. These complex pricing decisions are often left to sales representatives paid on commission, which encourages them to focus almost entirely on increasing sales volume.

**Refine the approach without dismantling it**

The realities of customized offerings discussed earlier—their one-off nature, the lack of market reference prices, the often complicated cost build-ups—make some flavor of cost-plus pricing necessary for most customizing companies. That said, a refined version of cost-plus pricing for customized projects, one that moves towards basing prices on value to the customer, can greatly enhance its effectiveness.

Exhibit 1 contrasts the characteristics of typical cost-plus approaches with the enhanced approach that some high-performing businesses have already adopted for customized projects. This more refined approach depends on using

Exhibit 1  
**An enhanced “cost-plus” approach**



Source: McKinsey analysis

accurate, up-to-date costs specific to the deal and the customer, and on thoughtfully differentiating margins according to the deal's context and customer value.

### 1. Use costs specific to the deal and the customer

Businesses that excel at pricing bespoke jobs are meticulous about estimating costs accurately. One way to improve accuracy is to analyze past won bids rigorously and compare estimated to actual costs component by component, as well as in total.

Such analyses typically show a wider than expected gap between actual and estimated costs: for instance, one building security systems company found its actual costs varied +/- 25 percent from estimates. They also generally reveal that most of the total estimating error stems from errors in a relatively small subset of cost components. The same building security company traced 80 percent of its cost estimating error to just 8 of the 76 individual components in the estimate.

Thankfully, that means you can improve accuracy without recreating the whole cost estimating system: you need focus only on the handful of cost components responsible for most of the error. For six of the eight error-prone cost components, the building security company abandoned average costs in favor of estimates more closely tied to the underlying cost drivers. For example, installation labor was always higher for concrete block than for steel-framed buildings, so the company reflected that difference in its bids. The company also broke down the other two error-prone components into smaller sub-components, whose costs were individually easier to estimate. Concentrating on fixing the major sources of inaccuracy reduced the company's range of estimating error to +/- 6 percent.

Cost estimates will also be more accurate when they include the effects of unusual requests from

customers for, say, special delivery requirements or shorter lead times. Companies often capture these costs in aggregate by spreading the total cost across all jobs. By developing a better understanding of which customers or jobs are actually responsible for these costs, companies can more effectively gauge expected performance when preparing a bid.

### 2. Review individual cost changes

Most companies tend to update their cost databases periodically, often monthly or quarterly, using average costs from the previous period adjusted according to expected trends. As soon as a cost in that database goes down, project cost estimates, and thus project bid prices, automatically go down too. In contrast, companies that excel at pricing customized jobs do not pass lower costs through to the estimating cost database by default but review each one, to decide which cost changes and how much of each should be logged in the database.

If a cost component goes down, a business might elect to gain a strategic advantage by leaving that component unchanged in the estimating cost database and maintain its prices. For example, a manufacturing company recently reduced its labor costs by 20 percent through improving operations. These savings lowered the cost of producing everything in the company's product line, including all its customized products. Because the company's competitors could not match these significant savings in the near-term, the company left the labor rates in its estimating cost database unchanged and made millions of dollars in additional profit.

If a fall in costs affects the entire market, however, a company might elect to pass through some or all of the cost savings to customers by lowering those cost components in the estimating cost database. A fall in energy prices, for example, will affect all competitors and the company that does not pass through such a fall to its cost database risks losing out to competitors that do.

## *In our experience, businesses attach more weight and discipline to identifying costs*

Businesses face a similar choice when a cost goes up. They may decide to absorb small, one-off or short-term cost increases by leaving that component unchanged in the cost database. Margins will decrease, but that may be worth it when the cost increase is caused by a short-term inefficiency arising from, say, relocating a production line, which affects only the company and not its direct competitors, and will anyway soon be resolved. Passing on a cost increase to prices in such a case might immediately undermine the company's competitiveness and also create a lasting image problem.

Alternatively, if a cost increase affects all market players in the same way, a company may prefer to reflect the higher cost in the estimating database and pass it straight on to customers. This might be the right decision for, say, corrugated packaging producers when containerboard prices increase.

### 3. Reflect cost risk explicitly in either the cost database or target margin

How can you account for the risk that some cost components may suddenly escalate due to, say, unforeseen variations in production procedures or quality obstacles? Such risks can be too large to ignore when building up a project's cost estimate, but they are essentially unknown.

One solution is to add an extra cost component to the database, labeled risk or complexity, where the person pricing the job can insert an extra cost to represent the estimated extent of the risk that overall cost will be higher than anticipated costs. These extra components are sometimes known as risk "adders".

Alternatively, companies can estimate overall cost risk as a percentage of total calculated cost and add the resulting number to total cost, varying the percentage according to the degree of risk. Some companies use pre-determined risk percentages based on a comprehensive assessment of the probability of cost variations for different offerings. For example, a "moderate

risk" job might have 2 percent added to total cost to cover its risk, while a "high risk" job might add 5 percent. Factors to consider in assessing the risk of a job include familiarity with its particular features (including but not limited to its production), unusually high quality standards requested by a customer, and characteristics that have escalated costs in the past, for example, using a paper width or grade that history shows will result in higher than average waste.

Technically, risk adders might be considered part of the margin rather than the cost calculation. But in our experience, businesses attach more weight and discipline to identifying costs, so they are likely to achieve a better pricing result if they treat risk adders as costs rather than a margin component.

### 4. Adjust margins according to the deal's value to the customer

By varying the "plus" in the cost-plus approach, a company can capture differences in the value of particular jobs to different customers. A company may have a distinctive competitive advantage with customers in a particular industry or in projects of a certain size or complexity, and any such unique advantage justifies – all else being equal – a higher "value-based" price. Margin targets can be deliberately differentiated to reflect such opportunities.

The target margin matrix in Exhibit 2 illustrates how a corrugated packaging company might think through setting different levels of target margins in different bid situations. The company sells three types of product: corrugated displays, specialty brown containers (which vary by style of box, board combination, and color mix), and standard brown corrugated containers. The company's highly qualified design personnel and operational expertise give it an edge over competitors in the corrugated displays segment and it makes use of this advantage by setting its highest target margins for corrugated displays. The company has less of an advantage in the

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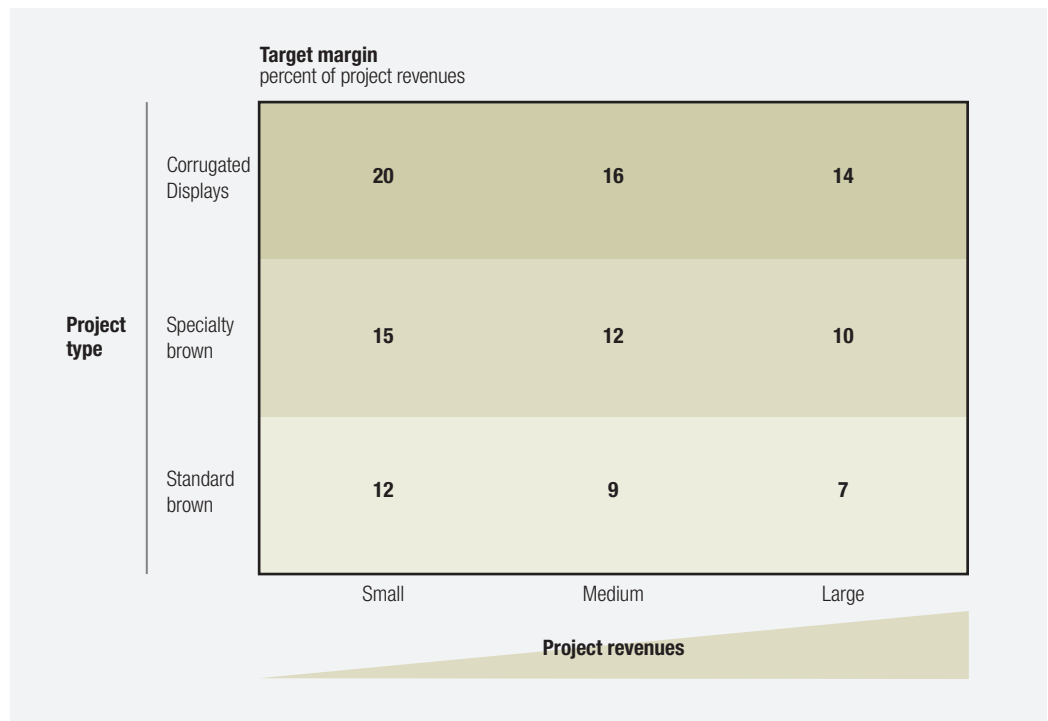
standard brown corrugated container segment, where it faces many more competitors offering very similar products and service levels. So its target margins are lowest in this segment, reflecting the lower comparative value to customers of its offerings. Across all types of projects, companies will tend to lower target margins as projects, and therefore project revenues, increase in scale.

Having chosen an initial target margin from the matrix appropriate to the type of project and size of the deal, the company would also develop a “fine-tuning worksheet” to allow sales representatives to report back any granular features of the customer and bid situation that may justify asking for a price higher or lower than

the initial target. Such features might include the customer’s satisfaction with the current vendor, the strength of the sales rep’s relationships with people influencing the deal, and the prices paid by the customer for similar products in the past. Developing a list of potential fine-tuning features to guide sales reps’ collection of intelligence will make discussion of which way and how far to adjust the initial target price more systematic and effective.

Note that the target margin matrix shown in this illustrative example would be routinely adjusted in line with actual deal data. To make the adjustments, the corrugated packaging company needs to track win rates for quotes within each cell of the matrix. When a win rate in a cell drops

Exhibit 2  
**Illustrative corrugated packaging company example: initial target margin matrix**



Source: McKinsey analysis

too low, the company will lower the margins within that cell. Conversely, it could start quoting at a higher margin if the win rate became too high, both to gain margin and make sure it was not needlessly holding market price levels down.

### Extending enhanced cost-plus pricing

This enhanced approach to pricing customized jobs, with more accurate and risk-adjusted costs and systematically differentiated margins, is comparable to approaches to pricing a range of what seem to be commodity products used in other industries. It offers the benefits of increasing overall price levels and almost eliminating unprofitable projects without losing market share. Why don't more firms use this approach more broadly?

Many basic materials companies, including pulp and paper firms, incorrectly believe that all their products are commodities. They argue that in a commoditized industry, differentiated margins and prices are inappropriate and impossible to charge, and that they are constrained by "spot prices" in their markets.

But these arguments are rarely true. A quick search for variations in price and margin in

particular markets will quickly reveal differences in both between sales reps and customers, debunking the commodity myth. The fact that one rep consistently sells at higher margins or that different customers are willing to pay different prices for the same product provides strong evidence that the product is not a commodity, and suggests opportunities for strategic margin and price differentiation on apparently standard products. This finding has held true in markets for basic materials as invariable as aggregates and concrete. If these almost uniform products are not commodities, how could pulp and paper products be?

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**Basic cost plus pricing, the approach most commonly used for pricing custom-configured products, is a deeply entrenched practice in many companies and markets. Indeed, a complete departure from the cost-plus framework would be difficult for most companies selling customized offerings. However, incorporating a few of the crucial elements of the enhanced cost-plus approach described above can provide suppliers of customized products with a practical path to increasing profitability.**