This BCG Focus is the second of two publications advising companies on preparing for the possibility of inflation.

In the first report, Why Companies Should Prepare for Inflation, we argued that there is a high midterm risk of a prolonged period of inflation. Since then, our conviction has been reinforced by rising commodity prices and inflation rates that have exceeded expectations in Europe and in many developing economies.

In this publication, we continue the discussion by describing a detailed approach for assessing a company's vulnerability to inflation and for developing a comprehensive plan to make a company inflation ready. The approach includes:

- Determining the impact of inflation on profits
- Plotting each business or segment on an inflation exposure matrix
- Determining the impact of inflation on capital expenditures
- Assessing whether the organization is inflation ready
Inflation has a corrosive effect on business performance. It undermines profits even as it causes managers to think their company is doing better than it really is. It encourages underinvestment. It distorts resource allocation. It also depresses market values; stocks generally underperform during inflationary periods.

At the same time, like any economic threat, inflation tends to separate the wheat from the chaff. Those companies that find a way to protect themselves from inflation’s negative effects may find that they can exploit an inflationary period to take advantage of weaker competitors and improve their own competitive advantage.

With prospects for inflation on the rise over the midterm, companies need to start now to prepare for the possibility. (See Why Companies Should Prepare for Inflation, BCG White Paper, November 2010.) They need to make their organizations “inflation ready.”

This publication describes a two-step process for doing so. The first step is to assess a company’s vulnerability to inflation by determining the effects of inflation on its profits and capital expenditures, as well as the organization’s readiness to respond effectively to those effects. Think of this as an inflation exposure diagnostic. The second step is to use that analysis to develop a holistic plan that addresses a company’s vulnerabilities and protects it from inflation’s negative consequences. In other words, it must build an inflation protection plan.

The sooner a company completes this process, the more likely it will be able to limit the effect of inflation on its business. The longer a company waits, the harder it will be to respond effectively.

Determining the Impact of Inflation on Profits

Whether or not a company’s profits will be severely harmed by inflation depends on two factors: the degree to which the company can limit price rises by its suppliers and the degree to which it can impose price increases on its customers. Keep in mind that the goal is not necessarily to completely insulate the company from inflation. That’s impossible. Rather, it is to make sure that input costs don’t increase faster than sales prices.

A company should begin determining its inflation exposure by assessing the potential effect of inflation on its P&L. To what extent are the company’s various
cost positions affected by inflation? To what degree can the company pass on higher costs to its customers? To answer these questions, a company should consider four key factors: the terms of company contracts, the balance of power with suppliers and customers, the inflation exposure of suppliers and customers, and the intensity of competition.

**The Terms of Company Contracts.** Most economic exchanges are governed by some type of contract, either implicit or explicit. Input costs are usually governed by implicit retail agreements, standardized contracts at a stock exchange, or customized contracts with suppliers. Sales prices are set by contracts with customers. Some of these contracts may be informal but include formal elements such as warranties or service covenants. In order to evaluate the likely impact of inflation on costs and prices (and, therefore, profits), a company needs to have transparency about the terms of these contracts.

The implications of contract duration are particularly critical to understand. On the supplier side, for example, long-term contracts function as an inflation hedge, whereas a high number of short-term contracts for spot market purchases increases inflation risk. Similarly, contracts with fixed prices provide more protection against inflation than contracts with index-adjusted prices.

Companies also need to understand the potential impact of renegotiation terms within contracts. Many long-term fixed-price contracts, for example, include clauses that automatically trigger a price renegotiation when inflation surpasses a certain rate. In addition to formal contract terms, a company should consider the potential effect of financial hedging, especially for raw materials that are broadly traded on liquid markets. Financial hedging can significantly reduce (or increase) exposure to cost inflation.

When reviewing contracts that cover input costs, a company should not limit its analysis to material costs alone. Other categories of cost, such as labor, can prove to be important as well. For example, a company should understand, by country, the percentage of personnel costs that is subject to collective-bargaining contracts, the durations of these agreements, and the rate they specify for wage increases. For nonunion contracts, it’s possible to estimate their average duration and the likely price developments in the labor market.

The design of contracts also greatly affects the ability of a company to pass its cost increases on to customers in the form of higher prices. Put simply, contract terms that are advantageous to a company on the supplier side are disadvantageous on the customer side. For example, short-term rather than long-term customer contracts help a company because they grant the most flexibility to raise prices. Similarly contracts that link prices to a raw-materials index also limit net inflation exposure.

**The Balance of Power with Suppliers and Customers.** It’s one thing to identify weaknesses in existing contracts; it is quite another to change them. Whether or not a company is able to impose advantageous terms on its suppliers and customers will depend largely on the balance of power within its industry.
The frequency with which suppliers adjust prices varies from industry to industry. Food wholesalers, for example, usually adjust their prices more frequently than suppliers in many other industries. As a result, their customers are relatively more exposed to inflation.

How well a company is positioned to fend off price increases from its suppliers depends on its bargaining position, which is determined by the importance of the company to the supplier and the company’s ability to switch suppliers. A company that is the lone customer of a supplier or that has a wide range of potential suppliers is, obviously, positioned to limit or delay price increases during a period of inflation.

A company’s bargaining power with customers defines its pricing power. A company’s pricing power—and, therefore, its ability to pass on cost increases spurred by inflation—depends largely on its customers’ price elasticity. A company can determine customers’ price elasticity in two main ways: through qualitative management assessment or through quantitative research using methods such as conjoint analysis. In some cases, it will be necessary to break down average product-price or market-price elasticities by customer-specific factors, such as age, social status, or participation in loyalty programs, which can heavily influence the relative importance of price in customers’ purchase decisions.

The Inflation Exposure of Suppliers and Customers. It’s not enough for a company simply to know the likely impact of inflation on its own input costs and prices. It’s also essential to have a firm grasp on the effect of inflation on its suppliers’ businesses as well. The more a company knows about its suppliers’ cost structures and how those structures will be affected by inflation, the more it will be able to predict how suppliers are likely to react to inflation—and be ready with a response.

So, too, with customers. Analyzing the potential of customers to pass on the costs of inflation to their own customers can provide valuable insight into the likely success of a planned price increase. A customer that competes on quality will probably value innovation and reliability more than one that competes on cost, and thus be a more tractable negotiating partner when it comes to price increases.

The Intensity of Competition. Most companies play in multiple product and market segments, each of which has its own distinctive competitive landscape and intensity. Since the intensity of rivalries heavily influences the impact of a company’s pricing decisions, it, too, is something that must be evaluated. For example, a company in an oligopsony (a market with a relatively large number of suppliers serving a small number of customers) may find it extremely difficult to enforce price increases. By contrast, a company in an oligopoly (a market with a small number of suppliers serving a large number of customers) may enjoy considerable pricing power—assuming, of course, that competitors increase their prices in turn and a price war can be avoided.

The Inflation Exposure Matrix
A company’s conclusions about all of the foregoing factors will differ by business unit or even by product or market segment. These conclusions can be summarized
Making Your Company Inflation Ready

in what we call the inflation exposure matrix. (See Exhibit 1.) The matrix categorizes businesses by the degree of their vulnerability to cost inflation and the degree of their ability to pass on higher costs to their customers in the form of higher prices.

For businesses in the upper-right quadrant of the matrix, inflation is actually beneficial. Their cost structure is relatively protected, at least in the near term, because of a high share of fixed costs or the predominance of long-term contracts with fixed prices. At the same time, they have the bargaining power to raise prices during an inflationary period. One reason a company may be able to raise prices is because there are no easily available substitutes for its products or services.

Some examples of companies likely to experience beneficial inflation are basic raw-materials businesses such as oil and gas, iron ore, or nonferrous metals; the high fixed costs for exploration and infrastructure are often accompanied by index pricing and the lack of substitutes. Such businesses can avail themselves of two attractive strategic options: to grow profits by raising prices at a rate that exceeds the rate of inflation or to increase market share by keeping prices stable while competitors raise theirs.

Businesses in the bottom-right quadrant may experience what we call turbulent inflation. They operate in highly dynamic market environments characterized by rising costs that are passed on further down the value chain. Often these businesses have a large share of raw-material costs in their cost structure and thus are greatly affected by cost inflation. At the same time, however, they are able to pass on their rising costs to customers—owing to short pricing cycles or strong pricing power. Many retailers may fall into this category because they typically have not only high
variable material costs but also extremely sophisticated capabilities for managing pricing.

Key success factors for such businesses are speed and coordination. Only if a company knows the current cost of input factors and has real-time information on its own prices and its competitors’ can it adequately deal with a rapidly changing environment. In this situation, it is essential to establish a close collaboration between the procurement and sales departments, so that sales is quickly informed of cost increases (and can pass them on to customers) and procurement understands the volume impact of price increases (and can optimize its procurement strategy). The data on market behavior gathered to assess inflation exposure will help a company weigh the benefits of increasing prices against the potential costs of lower market share and poorer production utilization.

For businesses in the bottom-left quadrant, inflation can be fatal. These businesses not only suffer from rising costs but also find it difficult to pass those costs on to their customers. The characteristics of such businesses are high variable or raw-material costs, intense competition, and customers with strong bargaining power. Typically, these businesses are squeezed within the value chain. Think, for example, of automotive suppliers that compete with each other for the business of an ever-smaller number of original equipment manufacturers.

Dealing with fatal inflation requires bold moves by management in order to fend off the imminent pressure on profitability. Companies need to take a close look at their current supply contracts, evaluate the potential for renegotiation, and, where possible, revise those contracts in order to reduce costs. A similar approach should be applied to sales contracts to assess whether it is possible, for instance, to shorten a contract’s duration or enforce temporary surcharges. The sooner a company or business understands its vulnerability to fatal inflation, the easier it will be to take an aggressive and strategic approach to price adjustment clauses and index pricing—before the full force of an inflationary period hits.

Finally, businesses in the upper-left quadrant of the matrix hardly realize there is inflation because the effect on their P&L is minimal. They experience what we call soft inflation. Companies in this segment typically have little pricing power (often as a result of government regulation) but a high share of fixed costs or long-term supply contracts. Examples include pharmaceutical companies (the impact of inflation on their costs is relatively low, and prices cannot easily be raised owing to regulatory limitations) and professional services firms (the market for lawyers, for example, is typically little affected by inflation). Such businesses, however, shouldn’t ignore inflation just because its consequences are not immediately felt. They must stay alert, assess the effect of inflation on their competitors, and be prepared to take advantage opportunistically of those that are hit hardest.

**Determining the Impact of Inflation on Capital Expenditures**

The impact of inflation on a company’s P&L is highly visible. Less visible, but perhaps even more important, is inflation’s effect on a company’s balance sheet. Why? Because cash flows—not earnings—drive the value of a company. As infla-
tion goes up, the value of a given increment of currency goes down and, therefore, the amount of cash needed to meet a company’s investment program increases, sometimes significantly. Net working capital needs to be refinanced at inflated costs; fixed-capital investments become more expensive when paid for with inflated currency. Unless a company can actually increase prices faster than the rate of inflation, the result is often a huge negative impact on enterprise value. For this reason, a company needs to assess the exposure to inflation of the two main components of its capital expenditures: net-working-capital requirements and fixed-capital investments.

**Net-Working-Capital Requirements.** Inflation can lead to a significant increase in a company’s net-working-capital requirements. As a hypothetical example, let’s consider the effect of 5 percent annual inflation over the six-year period from 2011 through 2016. (See Exhibit 2.) The model assumes that the company has $10 billion in sales revenues in 2010 and, without inflation, would grow its revenues by 36 percent to $13.6 billion by 2016. As inflation drives up the company’s revenues, however, the incremental revenues lead to additional net-working-capital requirements that need to be refinanced at a higher cost. The simulation shows that in a given year, the change in net working capital can be as much as double to triple what would be required in an environment of no inflation. Over the entire six-year period, this hypothetical company would need an additional half-billion dollars to finance its net working capital.
Every company should run this kind of analytical exercise using its own business-plan numbers to determine precisely how its net-working-capital requirements will change as a result of inflation. Of course, it is always a good idea for a company to reduce its net working capital to as low a level as possible. (See *Keeping Your Working Capital Working: Lessons from Consumer Goods Companies*, BCG Focus, October 2010.) But it is even more important during a period of inflation. When a company’s operating model requires high levels of inventory, it is forced to replenish its inventory at higher and higher prices during an inflationary period, requiring more and more cash to be tied up in working capital. By contrast, when the operating model is based on low levels of inventory, a company has far more flexibility—including the ability to take advantage of today’s low prices by stocking up on key inputs and, thus, avoiding higher prices tomorrow.

**Fixed-Capital Investments.** Another significant drain on cash flows can come from a company’s investment program. A systematic review of all ongoing and future investments will reveal how the costs of these investments can be expected to rise due to inflation. It’s useful to segment projects based on the degree to which they are discretionary. Has the project started already or is it still on the drawing board? Is it easily delayed or would doing so result in additional charges or new opportunity costs? How essential is the project to keeping today’s business running and to maintaining value? Is it focused on future growth plans that could, perhaps, be delayed? The purpose of this process is to quantify, by investment segment, inflation’s effects on capital requirements. In addition to being a prerequisite to developing appropriate countermeasures, it also helps to define the company’s investment priorities.

**Financing Capacity.** How well a company can deal with the increased capital needs created by inflation will depend, in part, on its financing capacity. So another dimension of assessing balance sheet exposure is for a company to compare the additional capital needs caused by inflation with the available funds, whether from cash reserves or from unused borrowing capacity. If a company finds that is has a looming financing gap, it needs to react immediately. If limiting the investment program becomes necessary, a company should be careful to do so in a strategic and systematic way—by postponing investments that have not yet started or by cancelling nice-to-have growth projects that won’t pay off until the far future. Keep in mind: underinvestment may weaken a company’s competitive position and could lead to delayed investments piling up in future years.

To avoid this risk, consider instituting longer-term initiatives to decrease capital intensity (for example, by reducing product complexity and therefore the specificity of assets). In addition, make sure that the company has a sufficient financial buffer in the form of unused borrowing capacity or cash reserves to enable it to deal with temporary cost peaks. This may be the best way to avoid financial distress and underinvestment during an inflationary period.

**Is the Organization Inflation Ready?**
How well a company is prepared for inflation will also depend on having organizational structures and processes in place that support effective decision making in a
turbulent, rapidly changing environment. Many of the characteristics of an inflation-ready organization may look identical to general best practices. But those practices will be stressed by the demands of an inflationary environment, so it pays to assess these organizational capabilities as part of the overall inflation-exposure exercise. (For a checklist of questions that a company can use to assess its level of preparation for an inflationary environment, see the sidebar “Assessing Organizational Readiness.”)

Three functions, in particular, will be important in developing inflation readiness: pricing, procurement, and finance. An inflation-ready pricing function, for example, will have a strong business-intelligence operation and advanced pricing analytics. The organization should have robust real-time data about market trends and price levels and be able to react quickly to the latest developments.

When it comes to procurement and supply chain management, inflationary periods pose a complex optimization problem. The costs of input factors are rising, while at the same time it’s imperative for inventories to remain low. To successfully balance the tradeoff, speed and seamless collaboration will be essential. The procurement organization should have the capacity to react quickly to changing input costs based on real-time information. It also has to communicate frequently with the sales organization so that it can increase prices if necessary. Finally, procurement should gather business intelligence on the supply market to identify opportunities for cost reduction, either by renegotiating contracts or by switching suppliers.

The finance and accounting departments also need to be quick, alert, and prepared for inflation. The higher uncertainty of an inflationary environment can seriously degrade the quality of a company’s planning. A company must have the capacity to use multiple time horizons for planning, monitor closely the quality of planning, and adjust the frequency of planning, if necessary. Inflation-ready finance and accounting organizations should use explicit inflation assumptions in their planning, be able to simulate the effects of different inflation scenarios, and adjust their key performance metrics for inflationary distortions.

Building an Inflation Protection Plan

By the end of its inflation-exposure diagnostic, a company should have developed a clear and dispassionate view of its specific vulnerabilities. It should know the likely impact of inflation on revenues, costs, capital requirements, and financing capability. A company should also know how ready the organization is to cope with the resulting challenges. This understanding lays the groundwork for developing a full-fledged inflation protection plan.

The precise focus, scope, and degree of urgency of the protection program will vary depending on a company’s specific vulnerabilities and risks. However, every inflation-protection program should have three fundamental characteristics.

Holistic, Not Fragmented. Because protecting a company from the negative effects of inflation requires close cooperation among many functional units, an effective protection program must take a holistic approach. Businesses should
establish a cross-functional task force responsible for developing an integrated, company-wide anti-inflation program. The specific composition of the task force will depend on the results of the inflation exposure diagnostic. The task force should be responsible not only for developing the inflation protection plan but also for setting up an early warning system to monitor leading indicators and to evalu-

CEOs should ask the following 20 questions to assess whether their organization is inflation ready in the three critical areas of pricing, procurement, and finance.

**Pricing**
- Do we have dedicated resources for pricing intelligence?
- Do we employ state-of-the-art pricing analytics?
- Do we have short- and long-term guidelines for price setting?
- Is inflation factored in to pricing decisions?
- Do we have real-time information on competitors’ prices?
- Do we continuously monitor customers’ price elasticity?
- Does pricing reflect the costs of unused capacity?
- Do we know where our price leaks are?

**Procurement**
- Do we use scenario planning for key input factors?
- Do we know which developments are most likely to affect the availability and prices of key inputs?
- Do we have tools in place to monitor supplier markets?
- Do the procurement and sales organizations regularly exchange information?
- Do we continuously monitor the cost structures of potential suppliers?
- Are we aware of the costs of unused capacity?
- Do we have scenario planning for key input factors?
- Do we know which developments are most likely to affect the availability and prices of key inputs?

**Finance**
- Does our accounting system capture the financial impact of inflation?
- Are there guidelines for incorporating the effect of inflation in business planning?
- Can we simulate the impact of different inflation scenarios on our business plans?
- Is liquidity reporting part of our regular financial-performance reviews?
- Do we have the mechanisms in place to adapt our business plans in real time as major financial and economic assumptions change?
- Do we use inflation-adjusted metrics for management reporting?
ate continuously the probabilities of alternative inflation scenarios. And should the company confront inflation in its key markets, the task force will direct and oversee the response.

**A Mindset, Not Just a System.** Making a company inflation ready is not just a matter of creating a system. It also requires changing the mindset of the workforce. The vast majority of managers and employees today have not experienced a major period of inflation during their careers. As a result, they will need to rethink their assumptions and adjust their expectations. For example, the marketing staff will have to switch from a world of annual price increases and a focus on volume to a world of monthly price reviews and a focus on margins. The procurement organization must shift from negotiating for the lowest price to achieving price stability and predictability. In finance, employees will need to develop a stronger focus on the short term. They also must emphasize speed and flexibility in providing cost and profitability data to those making decisions. Only when such inflation-ready perspectives are anchored within an organization’s thinking and processes can a company claim to be truly prepared for inflation.

It is therefore important, throughout the development and deployment of an inflation protection program, to actively communicate the goals and scope of the program to all stakeholders. Frequent internal communication is essential in order to create inflation awareness, develop commitment and support for the inflation protection program, and build the processes and capabilities necessary to adjust to inflation. External communication is also important in order to keep shareholders informed and to demonstrate how the inflation protection program is creating value.

**Strategic, Not Just Operational.** Finally, a company’s inflation protection program should be strategic, not just operational. Inflation can have a significant impact on corporate and business-unit strategy. The relative importance of different sources of competitive advantage may shift. For example, low capital requirements and a superior financing strategy can suddenly become key sources of competitive advantage. Such shifts create new opportunities for prepared companies either through better positioning (for instance, by having low levels of net working capital) or through superior capabilities (for instance, short-term cash-planning and monitoring skills). Both corporate decision makers and business unit executives should rethink their competitive positioning from an inflation perspective and develop strategies to benefit from the more dynamic environment.

For global companies, the strategic response to inflation needs to factor in the effect of asymmetric inflation rates in the various economies where a company competes. For example, a company may experience rising raw-materials costs but be unable to pass these costs on to customers, because the vast majority of its sales happen to be in an economy with a relatively low inflation rate. Such a company will not only experience a margin squeeze but also run a serious risk of falling behind competitors with more favorable regional-sales structures. By understanding its exposure to inflation in various regions of the world, such a company can start to use this knowledge to decrease its dependency on a single national market before inflation takes hold.
Because key success factors and industry structures are subject to change during an inflationary period, a company needs to pursue inflation-specific competitive strategies that take into account its current positioning. For instance, a cost leader will have a clear advantage; it can afford to wait longer than the competition to raise prices and in this way win market share. However, a market share leader has a much less attractive competitive position; it may be forced to increase prices first, because there is little additional market share to gain from undercutting competitors. A follower can choose between two attractive strategies: keeping prices stable and winning market share or raising prices under the shield of the market share leader and protecting or even increasing margins.

But inflation-specific strategies are not limited to pricing. For instance, if a company has limited ability to pass on rising costs, small adjustments to its business strategy may not be enough to ensure that it remains competitive. Such a company will have to reinvent its business model to respond to the inflation threat. (See Business Model Innovation: When the Game Gets Tough, Change the Game, BCG White Paper, December 2009.)

Consider, for example, a situation in which a company’s major customers have strong pricing power and are easily able to pass on rising costs to their own customers. Because the company’s customers are well protected from the negative impacts of inflation, one effective strategy for the company is to link its prices to those customers’ revenues. The company could do this, for instance, by shifting from selling a product to selling a service (the classic example is GE’s turbine business selling “power by the hour”). This not only reduces inflation exposure but also can create a competitive advantage by offering a superior service. More generally, turbulent inflationary economics call for companies to take an adaptive, dynamic approach to business strategy to overcome the limitations of deterministic methods and keep pace with incessant change. (See “New Bases of Competitive Advantage: The Adaptive Imperative,” BCG Perspectives, October 2009.)

Preparing for and protecting against inflation is a complex task. It requires significant effort—and often before the immediate need and benefits become clear. Nevertheless, companies need to start developing an inflation mindset now and prepare for this risk. Their decisions today will determine whether they will be the wheat or the chaff when inflation finally arrives on their doorsteps.
About the Authors

Ulrich Pidun is a principal in the Frankfurt office of The Boston Consulting Group. You may contact him by e-mail at pidun.ulrich@bcg.com.

Daniel Stelter is a senior partner and managing director in the firm’s Berlin office and the global leader of the Corporate Development practice. You may contact him by e-mail at stelter.daniel@bcg.com.

Acknowledgments

The authors would like to thank Katrin van Dyken for her contribution to this paper, Robert Howard for his writing assistance, and Katherine Andrews, Kim Friedman, Gina Goldstein, Trudy Neuhaus, and Sara Strassenreiter for their contributions to editing, design, and production.

For Further Contact

If you would like to discuss this report, please contact one of the authors.

For a complete list of BCG publications and information about how to obtain copies, please visit our website at www.bcg.com/publications.

To receive future publications in electronic form about this topic or others, please visit our subscription website at www.bcg.com/subscribe.