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Manufacturing Urgency
A Memo to the
Chief Operating Officer



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EXECUTIVE SUMMARY

The global financial downturn has hit already-struggling manufacturers especially hard. But it also offers opportunities to take critical actions now that will position manufacturing leaders to come out the other side in a winning position. Those actions include: free up cash; review product profitability; reduce capacity; rationalize overhead costs; use facilities more efficiently; improve labor productivity; change wage rates and reduce raw material prices to market levels; and look beyond the crisis. Each involves judgment calls and understanding of the economics of the company and its competitors.

CRITICAL ACTIONS MANU- FACTURERS CAN TAKE NOW

Troubled times like these are always especially troubled for manufacturers. The makers of goods were already facing some of their toughest challenges in decades: shifting consumer demand, fierce competitiveness, and relatively high commodity and oil prices. The financial meltdown has brought with it severe cash shortages and the possibility of a long-term credit crunch.

However, the current situation also offers rare opportunities. It is during such times of discontinuity that industry structures are transformed, the competitive landscape is altered, and long-overdue changes are implemented. The key to surviving and thriving

in these challenging times is to quickly take critical actions that save cash now but enable manufacturing leaders to come out the other side in the winning position. Speed is of the essence—but so is thoughtfulness. All the critical measures involve knowing the competitive economics and making judgment calls. They can't be applied across the board. They may mean cutting back some inventory but maintaining or improving service levels for the most profitable customers, or outsourcing in some areas and bringing operations in-house elsewhere. In each case, rapidly assess your situation, diagnose your problem, and then move to a more frugal, adaptive, and resilient position.

1. Free up cash. The current crisis is, at heart, a crisis of liquidity. Save every penny of cash you can. Apply the discipline to use “real” cash costs, rather than “accounting-based” costs like depreciation and notional allocations, to guide your investment decisions. One of the surest ways to free up cash is to reduce inventory. Even highly experienced manufacturers often have inventory costs that can be recovered. In these times, the demand for many products has sud-

denly decreased, which leaves excess inventory in the system. This is the first area to target.

Next, eliminate obsolete stock stored in plants and warehouses. Establish new, stricter inventory targets, based on a “pull” supply model: Start with customer demand and work your way “market-back” to the shop floor and the component orders. In many cases, unwelcome low demand makes it possible to react more quickly to

orders, and less finished inventory is required. Position inventory in the factory in a way that reduces production cycle time and enables further reduction in finished goods inventory. Move to this model for both your outbound finished goods and your incoming materials. Shift your inventory locations to more optimal positions in the supply chain.

This is also the time to cancel or defer nonessential investments until

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the financial path ahead is clearer. In addition to the fact that capital is tight, the lower demand may change the benefits of many investments. Among the investments that might be eliminated are those for extra capacity that is now less attractive. Deferrals could also include nonessential capital expenditures for maintenance, and new investments in existing plants. The current economic climate might make it easier to recognize some investments as inherently unattractive;

cancel them entirely. Defer the rest. Be ruthless about sunk costs; although resources may have already been invested in a project, you do not need to continue investing in it if it is no longer appealing.

2. Review product profitability.

Companies do not always maintain a full view of the true profitability of their product lines. Profitability may be clouded by accounting methods such as average costing or outdated

allocation categories. The economics of many products has suddenly gotten worse. Take a new look; you probably won't have to work hard to find some established products that are losing money.

Stop serving unprofitable customers as well. Sometimes a product is profitable only when sold to certain customer groups; reaching others is too costly. For example, an aftermarket auto parts manufacturer may lose

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money on products sold at select big-box retailers but make money selling through the distribution channel or other retailers. In other words, match your product's operating model more carefully to your target markets.

What unprofitable products, stock-keeping units (SKUs), and customer commitments can you safely eliminate? Not all of them. Some of them might be strategically critical to your portfolio. For example, while no automobile tire supplier makes money on tires sold through manufacturers, those sales are essential to selling in the highly profitable aftermarket. In some cases, you

may be able to increase prices to allow for adequate margins.

Meanwhile, add new products that target underserved markets. Demand is currently increasing for fuel-efficient small cars, clothes that are trendy but inexpensive, and products that people can use at home instead of hiring others or going out: entry-level yard fertilizers, canned foods, and frozen entrees.

3. *Reduce capacity.* Dropping space and equipment can give you a step-change reduction in fixed costs. Look for areas where you are spending

more on manufacturing capacity than your competitors are. Those products will be the first to become unprofitable if demand falls in this downturn.

Watch for chronic overcapacity. Have you been willing to operate below full capital recovery levels for long periods of time? Even relatively low-cost facilities can become unprofitable—especially when you have fixed costs and exit barriers (real or perceived).

Use the downturn as an opportunity to consolidate plants and close relatively disadvantaged or costly facilities. Shut down unused areas

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within plants. Reduce high-cost capacity; keep open facilities that are likely to be needed as higher-cost competitors back off or as demand rises. Tie these decisions to the product profitability decisions above. An analysis of your competitive position and the potential future market demand for your products will probably be required before you shut anything down.

4. Rationalize overhead costs.

Reduce plant and supervisory staff by decreasing layers of management,

increasing the span of control, matching staffing to the new workload, and adjusting the ratio of indirect to direct employees. Make better use of manufacturing support functions like engineering, maintenance, and quality by sharing them across plants; consider centralizing functions that do not need to be based locally. Determine whether maintenance work can be done internally.

Assess your fixed costs. Which costs can be made variable, so that

they adjust along with changes in volume or product mix? Increase your use of temporary workers if you have uncertainty about the plant or product; many companies with a highly seasonal demand already do that well. Outsource services for which your need fluctuates, and outsource manufacturing of components.

5. Use facilities more efficiently.

Improve your utilization of plants and equipment. Devote available capacity to other uses. Reduce overproduction

by restricting the time that a facility can be scheduled for a given purpose (this also reduces inventory buildup). Identify and resolve capacity bottlenecks. Downsize to equipment that has less capacity—and lower operating costs.

Sometimes you can deploy excess capacity by bringing more production in-house. For example, when times are good, many companies outsource sheet metal fabrication to ease capacity constraints; with reduced demand, this process can be returned to your own factories.

Share assets with other companies—even competitors, if feasible. For example, in the petrochemicals

industry, ethylene crackers are usually shared among multiple competitors.

When you face short-term declines in demand, temporarily shut down the affected facilities to save costs and avoid the buildup of inventory. A number of auto assembly plants are currently going through temporary shutdowns to dial back production.

6. Improve labor productivity. Take a fresh look at your current labor utilization. Consider your plant shift structure and your staffing levels. Do they match the demand? Eliminate shifts that are not needed. Use overtime or weekend shifts to meet incremental volume that is not large enough to require a new regular

day shift. Introduce more shifts and greater use of weekend hours if doing so enables you to shut down other facilities. Set up your plant staffing to handle varied processes more flexibly to balance fluctuations in demand. Cross-train employees to take on multiple roles and responsibilities, moving them as needed. If you have recently hired people to meet new demand that never materialized, you may need to redeploy or rationalize them rapidly.

For productivity improvement, focus your attention on labor-intensive plants and processes. Separate the manufacturing and assembly of high-complexity, low-volume products from that of low-complexity, high-volume

products. Redesign manufacturing processes and flows to eliminate waste and increase labor efficiency. Implement low-cost automation where feasible. Institutionalize best practices across your plants, using internal and external benchmarks for manufacturing productivity, cost, and other key performance indicators. At the same time, be wary of shifting focus and undermining productivity improvement efforts. Stopping and restarting such programs will lead to a jaded workforce in the long run.

7. Change wage rates and reduce raw material prices to market levels. Unemployment is high, with weak labor demand in a number of localities. At the same time, many wages have

crept above market rates. Now might be the time to cut costs by reducing wages and benefits. Wages can be a component of the broader decision to rationalize plants and capacity. At the same time, the current economic climate might provide the opportunity for you to find talent that you have been looking for. A key electrician, IT specialist, or automation engineer may make the difference in driving productivity in a plant.

The prices of a number of commodities, including oil and metals, have fallen from their peak levels. Take advantage of declining commodity prices to lower raw material costs. Move to “fair returns” pricing that links the price of your incoming commodities

to underlying market indexes. Switch to lower-cost substitute materials that do not affect the value of your product. For example, a number of consumer food companies have changed the composition of their products to use less expensive raw materials.

8. Look beyond the crisis. As you take near-term actions, you should also evaluate your long-term competitive strategy to ensure that you emerge from this downturn with a winning hand. As a manufacturer, you have several forms of leverage at your disposal to bolster your ultimate position.

Footprint: While cutting back and consolidating plants, consider your optimal manufacturing and supply

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For additional insight into the challenges of the current recession and practical advice for leading your function and company through it, please visit www.booz.com/recession.

chain network. What is the right mix of low cost country and high cost country manufacturing, for what products? What are your competitor positions? Do they have a weakness that you can target? Where are your customer bases growing? Where are your transportation hubs and bottlenecks? Can you design a set of locations that will allow you to enhance your advantage?

Flexibility: It is not possible to predict the timing or extent of the recovery, or even if the current changes in consumers' buying habits are permanent. The best defense against uncertainty is to build more flexibility into your manufacturing approach, so you can handle shifts in product lines and demand with changes in your own volume and production mix.

Attention to service: Align your own service levels and supply models

with market requirements. For example, stop weekly deliveries to customers who require only monthly replenishments. Scale back on service levels for over served customer segments, and ramp up service levels for underserved but potentially highly profitable segments. Use a mix of push, pull, and hybrid (push-pull) service delivery models.

Product design: Eliminate product features and functions that customers won't pay for or that don't give you competitive distinction. Align your product durability and quality to customer expectations. Avoid waste in packaging.

Employee motivation: Your ultimate goal is to create a long-lasting enterprise that rewards everyone involved. Be sure that your employees are motivated and understand the benefits and necessity of the changes you make.

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