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by

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ABSTRACT

Endgame strategies are used for businesses that have products in the second half of their life expectancy. Good cash flows and returns on invested capital can be attained in such mature business environments through skillful management of tactics in a way that differs from how businesses in growth environments are managed. In particular, effective endgame strategies differ in their use of (1) pricing, (2) asset deployment, (3) cost effectiveness measures, and (4) timing of implementation.

IMPLEMENTING ENDGAME STRATEGIES FOR DECLINING INDUSTRIES

More than half of the industries in mature economies -- in Western Europe, Japan, and the United States -- are experiencing mature and/or declining demand for their products. Demand for some of their outputs will never revitalize, a competitive fact that too few managers are willing to acknowledge. How can firms cope with the adverse and inevitable competitive environment of the "endgame" -- a setting where stagnant growth and poor prospects for revitalized demand makes excess capacity a competitive fact? Few firms can afford the grit of Dow Chemical which shut in its newly-completed Oyster Bay (Louisiana) refinery in 1982 to avoid the price wars it would have created by bringing excess capacity onstream. Yet many firms need strategies to face this competitive challenge.

The Endgame

Most frequently, the endgame's slow demand growth is associated with (1) import competition that is created as the economies of newly-industrializing countries vend their products in the global marketplace. But occasionally the slow demand growth of endgame is due to (2) demographic and/or lifestyle changes, (3) conservation policies, (4) cheaper raw materials that use alternative technological and/or processing routes, (5) technological and/or styling obsolescence, (6) more attractive substitute products, or other reasons. Whatever the cause of slowing shipment volumes, industries enter the endgame the threat of excess capacity (and bitter price wars) looms over them. Briefly, the long lead times associated with firms' commitments to new generations of costly

and durable assets (in anticipation of market growth forecasts that never materialize) prevent firms from frictionlessly adjusting their productive capabilities to the lower volumes that are demanded in the slow-growth environment of the endgame. Disbelief in (or failure to recognize) the endgame retards firms from making the necessary reductions in productive capacity -- especially among the smaller firms that are most likely to pursue "maverick" strategies (discussed below) to the detriment of other firms.

The fact that 39 percent of Harrigan's (1980) sample of firms facing declining demand enjoyed average returns-on-invested-capital of 35 percent (or better) suggests that some firms have found ways to cope with the endgame's competitive environment effectively.[1] The firms studied used a special set of endgame strategies for their businesses with products facing the second half of their life expectancy that differed significantly from the strategies embraced by businesses in growth environments (Bower, 1986; Harrigan, 1980, 1985 a). Her results suggest that good cash flows and returns on invested capital can be attained in mature business environments through the prudent selection of endgame strategies and skillful application of the tactics accompanying each of these strategies. This paper reviews the endgame strategies and examines in greater detail the tactics managers used to manage effectively in endgame environments.

REVIEW OF FINDINGS

Harrigan (1980) established that there are viable strategic alternatives for mature businesses and that a number of different types of

strategies have proved to be successful in maturity and endgame. These strategies are shown in Figure 1 (and discussed below). In any endgame environment, some strategy alternatives are more appropriate than others, and some firms enjoy a greater range of alternatives by virtue of how well they have prepared themselves for the problems of slow demand growth and excess capacity through their past asset deployment.

Part of the endgame battle can be won through psychological warfare because many large and diversified firms believe that declining businesses absorb too much managerial attention and too many resources that might be better deployed elsewhere. Their managers seek to run businesses where it is easy to succeed. Their managers most frequently plead for protection from stronger competitors since they lack the wherewithal to bring their own operations abreast with those of rivals. These are the very firms that should divest themselves of businesses facing declining demand early because their employees do not know how to manage the endgame effectively.

My remarks about implementation tactics pertain to the other type of firm whose managers are not afraid to navigate through endgame competition. These are the managers who realize that strong firms possess the ability to re-position themselves in mature and declining businesses to serve the most attractive, surviving market niches, once they have identified (1) how demand will decline and (2) what competitors are most likely to do in response to endgame competition. Discussion of these tactics proceed from a review of which generic strategy alternatives are most appropriate for coping with stagnant and/or declining growth in shipment volumes, and how managers can ascertain which strategy options are most appropriate for their firms' circumstances.

GENERIC ENDGAME STRATEGY OPTIONS

Overall, five major types of strategic responses to demand maturity and/or decline can be identified. These include: (1) divesting the business quickly by disposing of its assets as advantageously as possible, (2) milking (or harvesting) the firm's investment in the troubled business to recover cash quickly, regardless of its resulting competitive posture therein, (3) shrinking the firm's investment selectvely by sloughing off unpromising products and/or market segments while simultaneously strengthening the firm's position within the lucrative niches of enduring customer demand with a better-focused line of products, (4) holding the firm's investment level until uncertainties about the future of the troubled industry can be resolved, and (5) increasing the firm's investment in the troubled business (to dominate or gain a better competitive position).

Divest Now!

Firms that cannot manage effectively in beleaguered environments may wish to exit from them quickly to give another firm a chance to earn the high returns that Harrigan's (1980) research suggests are available in a well-managed endgame.[2] Firms may wish to divest quickly because competitors are cutting their prices severely or otherwise impairing industry-wide profitability. Moreover, if analysis of industry traits suggests that the environment is evolving to one that will not be hospitable for other types of strategies (and if competitors' behaviors reduce the likelihood that later exit will yield as high a return as immediate divestiture), it may be advantageous to cash in on a declining business early, before other firms reach the same conclusion. This is what

Ashland Oil did in exploration and production activities, what Raytheon did in electronic receiving tubes, and what duPont did in rayon acetate.

In all of these cases, early exit is imperative if managers hope to recover much of the value of their firms' assets by selling them. The objective of early exit is prudent timing, and implementation means the sale of business assets or their abandonment. Firms sell their assets to competitors (if necessary) or junk them as American Enka did in order to avoid sustaining chronic losses and release working capital for other uses that managers believe will yield better returns.

Firms that exit early are less concerned with how much longer demand will endure than with how much value can be retrieved by leaving an endgame setting immediately. (Some endgames last a century or longer -- as in the example of declining demand for cigars -- while others are short-lived like demand for red dye #2, a carcinogenic food additive.) Expectations concerning future demand affect the value departing frims can hope to recover from their endgame businesses, and the highest salvage values are recovered early in the endgame -- before other firms (potential buyers of endgame assets) recognize that the endgame has begun.

Milk the Investment

Managers milk businesses to increase their firms' immediate return-on-investment (by surrendering market share) or to funnel as much cash as possible to other projects quickly. Milking (or harvesting) strategies commonly occur when immediate exit is impossible (as a result of exit barriers). They are inherently risky and must be considered "second best" strategies because they represent managers' assessments that further investment in the business in question is unwarranted. If a

more attractive way of exiting had been available, firms would have divested their interests rather than milking them.

It is very difficult to remain a strong competitor in businesses that have been milked of their resources, since the most effective milking strategies are executed without regard for subsequent market position. The greatest risk in pursuing a milking strategy within declining businesses is that uncontrollable, adverse events may force firms to shut down early before managers can extract all of the value invested in their businesses.

Shrink Selectively

Managers embrace the "shrink selectively" strategy option where demand within some mature market segments seems to be both enduring and large enough to sustain their firms. In this strategy, firms with wide product lines reposition themselves to concentrate on serving the most desirable customer groups while retrieving the value of investments used formerly to serve less attractive market segments. The most desirable customers in a declining industry are those who are least likely to convert soon to a substitute product because of their high switching-cost barriers. Redeploying assets to serve such customers in a shrinking strategy is wise if managers can pre-empt rivals from doing so first and prevent them from copying their moves later.

In order to shrink the unattractive parts of a declining business while buttressing the most promising parts, firms must make additional investments. The objective of this strategy option is to capture the enduring and lucrative customers before competitors can identify them, as Mead Johnson did with infant formula while it abandoned Pablum and Bibb

juices. The strategy works only if there are lucrative (and defensible) market niches to serve.

Hold Investment Level

Holding strategies are used when firms are already in the best strategic posture to compete or (pending more dramatic actions later) until their managers resolve key uncertainties. Holding strategies are defensive because reinvestments are made to match competitors' outlays, price changes, and marketing expenditures.

Maintenance investments are made to compensate for losses in operating efficiency in holding strategies, like Mobil's bottle-necking investments that enabled their refineries to run at lower throughputs.[3] But firms do not immediately thin their product lines, close their plants, or consolidate their assets under the holding strategy option because they may need productive capacity if demand revives or they decide that they wish to strengthen their position in the declining industry later.

Increase Investment Level

Increasing investments in a mature or declining industry are unambiguous signals to competitors (and to the capital markets) that managers believe that their firms should pursue market dominance to their long-term advantage. Firms reinforce their commitment to declining businesses by purchasing the assets of competitors who wish to exit or by taking other precautions to ensure that competiton in declining industries does not degenerate to bloodthirsty price-cutting when rivals experience excess capacity. (The short-term tactics that reinforce the increased investment strategy may call for temporary price reductions to force marginal competitors out of the industry, as I explain below.) Declining

industries are made more attractive for the firms that choose to remain by their willingness to (1) help competitors to exit, (2) act as supplier to rivals who have discontinued manufacturing operations but continue to merchandise products facing declining demand, and (3) produce for private brand resellers to utilize excess capacity.

Increased investment strategies are usually pursued where (1) firms see large and enduring pockets of demand for the product experiencing declining demand, (2) the cost of repositioning to serve these customers most advantageously seems likely to be recovered rapidly or is not substantial, and (3) few other competitors are capable of, or positioned to serve the attractive customer niches as advantageously. Firms that pursue increased investment strategies are often cost-efficient in manufacturing the troubled product or sell patented (or branded) products to loyal customers. Increased investment strategies are easiest to implement within declining industries that have relatively low exit barriers, few maverick competitors, high switching costs for customers, and other favorable traits (detailed below).

I have found a high correlation between the strategies recommended in Figure 1 and success in endgame. The table in Figure 2 depicts this correlation. Briefly, 92% of the firms that followed these recommendations were successful, and 7% of the firms that followed the recommendations were unsuccessful. 16% of the firms that did <u>not</u> follow recommendations were successful, while 84% of the firms that did not follow recommendations were unsuccessful.

Once managers have determined which endgame strategy option is most appropriate for their firms, implementation is fairly straightforward. Unfortunately, many managers refuse to face the ugly reality that they

are in a sick business or that their firm's strategic posture is simply wrong. Instead of phasing out their no-longer-profitable product lines, many otherwise well managed firms hang on for too long. Figure 3 lists some of these United States industries that were experiencing declining demand.

ASSESSING WHICH STRATEGY TO PURSUE

A firm's endgame success is determined by (1) having a favorable industry structure, (2) building a position of relative competitive strength, (3) adapting the tactics of chosen strategies to differing competitor activities, (4) maintaining good coordination between the intelligence gained from scanning activities and the actions taken, and (5) pre-empting competitors when executing its chosen strategy. A successful firm maintains its strategic flexibility by developing sophisticated scanning systems that help it to implement tactics with greater precision.

Industry Structure

Managers choose endgame strategies by first assessing the profitability potential of the troubled industry, without regard for how well-suited their firm is to satisfy demand. As I explained above, if the industry is attractive (but the firm is weak), early divestiture may be the most attractive option to embrace.

Unfavorable industries have (1) no niches of enduring, price-insensitive demand, (2) low customer switching-cost barriers, (3) strong customers who exert their bargaining power, (4) commodity-like products, (5) substitutes that are perfect and cheaper, (6) rapid or highly

uncertain rates of declining demand, (7) indifferent suppliers, (8) highly specific and undepreciated assets, (9) poor competitive signalling, and (10) maverick competitors who insist on remaining in the troubled industry, among other inhospitable traits. Favorable industries have (1) sizable niches of enduring demand, (2) differentiated product attributes (services) that customers value, (3) high customer switching-cost barriers for sizable niches of demand, (4) weak customers who do not exert buying power, (5) slow, predictable rates of declining demand, or (6) hope for some revitalized demand (on a lesser scale), (7) imperfect substitute products for some uses, (8) helpful suppliers, (9) flexible or depreciated assets, or (10) ready markets for retired assets, (11) few reinvestment requirements, (12) low penalties for excess capacity, (13) effective competitive signalling, and (14) gentlemanly and statesmanlike competitors, among other hospitable traits.[4]

Relative Competitive Strength

If analysis of the environment indicates more undesirable traits than desirable ones, firms should not consider the more aggressive strategy options shown in Figure 1. Instead they should investigate ways to divest their assets immediately or to milk them efficiently if outright sale of them is impossible. Unorthodox arrangements may be needed to help firms to overcome their high barriers to exit (Harrigan, 1985 b; Chapter 11). For example, the joint ventures between USX and Pohang Steel, Nippon Kokan and National Steel, Sumitomo Metal Industries and LTV Steel, and Nisshin Steel and Wheeling-Pittsburgh Steel, respectively, are incremental divestitures in which one partner fades out while the other joint venture partner assumes majority ownership.[5] Sometimes government coordination through cartel schemes is needed to coax inefficient

productive capacity out of industries like fibers, bulk steel, steel castings, and petrochemicals, among others (Baden Fuller, 1984).

The strengths that help firms to implement endgame strategies include (1) established relationships with customers who make up enduring (and lucrative) pockets of demand, (2) a highly valued brand name, (3) a plant that can operate efficiently when underutilized, (4) strong and substantial distribution networks, (5) favorable locations for operations, (6) advantageous raw material contracts, (7) good sourcing alternatives, (8) international market links (and low shipping costs), (9) able technicians who can jimmy-rig productive assets, (10) low manufacturing costs (best technology), (11) good competitive scanning systems and data collection of liquidation options, and (12) an advantageous posture of diversification. Because some of the attributes that give competitors positions of relative strength to serve mature and/or declining demand are also sources of exit barriers that will make them difficult to dislodge, managers should adjust their tactics to help unwanted competitors to exit.

Adaptation of Tactics to Differing Competitor Expectations

Because competition does not take place in a vacuum, managers must monitor what competitors are doing while keeping their own productive capabilities in line with declining demand. Doing so requires managers to retire excess capacity, relieve pressure on prices and costs, tightly control expenditure levels, and engage in other activities to minimize the height of exit barriers. It may require firms to use unorthodox sourcing/ selling arrangements and find ways to minimize write offs associated with asset retirements.

Unfortunately, an unsuccessful firm is more likely to respond to declining demand by favoring its old responses rather than by acting as the situation might dictate. There is substantial evidence to suggest that firms with weak competitive positions in unattractive industries tend to hold on to these businesses too long and ignore what their competitors are doing (Harrigan, 1980). Because competitors' actions can shift the balance of power in an industry to inhibit a firm from adopting the most economically-appropriate strategy, leading competitors should not be complacent. Weaker firms have pre-empted indecisive leading firms from choosing better strategies in some endgames.

Good Coordination Between Scanning and Action

Successful firms develop superior ways of collecting market and competitor intelligence. Effective scanning systems allow managers to watch the factors that determine demand for their products -- acreage that has been planted, customer practices, crop prices, and resource scarcities, for example -- to anticipate which actions they should take. They maintain tight internal communications in order to exploit quickly any marketing errors made by competitors. They act on their scanning capabilities by adjusting the timing of their tactics and by developing contingency plans to accomodate the effects of key actions by competitors which they are able to anticipate.

Preemption in Execution

Timing is crucial in endgame competition. Some of the strategies outlined above require <u>early</u> execution if they are to succeed because outsiders will buy a finite number of plants from firms that wish to exit. Where reinvestments and repositionings are needed to remain

viable, a firm must commit its resources to new targets before competitors can maneuver into a more advantageous position.

THE STRATEGIC OBJECTIVE OF ENDGAME STRATEGIES

Effective endgame strategies rationalize excess capacity. In order to do so, managers must analyze the exit barriers of the firm and its competitors in order to determine how to overcome them.

Exit Barriers

Exit barriers are factors that dissuade firms from making smooth and timely exits from their various lines of business. Opportunity costs are created from the blocked assets and diverted resources arising from exit barriers. They induce technological lags by mis-directing managers' attentions from other, more critical troubled businesses and by diverting excessive managerial resources to an endgame that cannot be won. They incite the kind of price-cutting behavior that ruins industry profits for all.

Exit barriers convince firms that they cannot afford to divest (or harvest) a business. They arise from shared facilities, past investments in corporate identity-creation and/or product reputation. Even high market share can be an exit barrier. Managers within publicly-traded firms are especially susceptible to exit barriers because they let their firms' accounting policies entrap them in unattractive industries. For example, when firms are required to eliminate the reserves that offset losses on asset disposals, the resulting poor reported performance undermines the capital market's confidence in management's abilities. Since their firms need ready access to these outside sources of capital

to finance their growth strategies, managers that are entrapped by exit barriers prolong their firms' presence in industries where they are ill-equipped to compete (rather than realize write-offs on asset disposals).

Harrigan (1981) notes that the strongest exit barriers involve (1) customers shared with the firm's other business units (53% probability that exit would not occur, ceteris paribas), (2) promotional and advertising expenditures (45%), (3) physical facilities that are shared with other businesses (42%), (4) high expectations that demand will resuscitate (41%), (5) investments in a reputation of high product quality (35%), (6) undepreciated physical assets (26%), and (7) an assessment that the business is of high strategic importance, perhaps due to the firm's historic origins (11%). From this ranking, managers can assess which actions to reduce exit barriers are most urgent to undertake in order to attain success in endgame.[6]

PREPARING FOR ENDGAME

As managers prepare to maneuver through the endgame, they analyze the causes of depressed demand in order to identify whether niches of enduring customers exist. Next, they evaluate which firms are best suited to serve the most attractive customers and estimate whether their firm can justify repositioning investments to serve those niches. If analysis suggests that their firm is not the strongest or that no niches exist, managers should divest the troubled business immediately (assuming that a ready market exists for the firm's assets). Managers should begin milking the firm's asset base quickly if outright sale is impossible.

If analysis suggests that their firm is one of the stronger competitors and that demand within attractive customer niches will endure, managers next assess the heights of their firm's and competitors' exit barriers to assess whose barriers would be easier to overcome and to decide how they might influence the endgame's evolution. Since the strongest barriers to strategic flexibility tend to be shared customers that can harm a firm's other business units when they are are cut off, managers begin shaping their endgame environment by assessing how they might change customers' exit barriers.[7]

Reducing Customer Switching Cost Barriers

Many managers believe that policies to lock in customers -- such as take-or-pay contracts -- are advantageous to their firms.[8] In fact, having customers that face high switching cost barriers can be a two-edged sword. Although having contractually-bound customers guarantees some cash flow, a firm often needs several customers whose purchases represent a substantial portion of its plant's productive capacity to justify remaining in the endgame. Dependence on a few customers who are bound by take-or-pay contracts can stymie the firm's strategic flexibility if one of those customers fails and the others will not renegotiate their contracts to absorb its slack. Enterprising managers should recognize that if the dangers of locking customers in outweigh the possible benefits of continuing such relationships, they must find a way to ease contractually-committed customers into using other products. Perhaps their firm can create a business opportunity for itself by helping key customers to develop new technologies or services that depend on substitute products which the firm could supply to them instead of the endgame product.

Lowering Competitors' Exit Barriers

Enterprising managers can help marginal firms to exit by (1) offering to honor competitor's obligations to service their installed base of products or supply replacement parts (thus lowering rivals' customer-related exit barriers), (2) acquiring their plants or other productive assets, and/or (3) intercepting suppliers who appear eager to assist marginal competitors. Desperate firms have gone public in a plea to persuade competitors to exit, as Gerber Products did. They may even start a price war (but only if they can win) or alert regulatory agencies of competitors' transgressions in pollution control or infringements of other regulations, if they themselves are blameless.

Lowering the Firm's Own Exit Barriers

Managers can help their own firms to overcome exit barriers with greater ease by changing their firms' planning processes and accounting policies. For example, managers could institute "horizon budgets" whereby they routinely evaluate whether to exit from a line of business when demand growth falls below a prescribed performance level. Horizon budgets force managers to prepare contingency plans for workforce reductions, replacement parts for their installed products, et cetera, in case top management decides to ease out of the endgame business. Horizon budgets warn managers when purchasing policies should be changed so that contracts are timed to parallel plant depreciation schedules, and when accounting losses on disposal should be matched with gains by divesting winning product lines with losers (a practice that is especially commonplace if accounting exit barriers are high for a firm).

Managers could lower their firm's own exit barriers through financial tactics, such as leasing replacement assets instead of purchasing them when managers first notice the advent of endgame. They could use technological tactics, such as trading off highly specialized plant and equipment for general-purpose, more flexible assets as industry-wide growth in unit shipments slows. If firms operate in several international geographic markets, multinational tactics for lowering their firm's own exit barriers could include moving assets abroad on a scheduled basis, thereby forcing "jump-off" points of re-evaluation each time the firm is asked to fund a new generation of assets for a specific geographic site.

Relationships among the firm's business units -- such as vertical integration arrangements -- must not be allowed to become exit barriers in endgame (Harrigan, 1983; 1985a). Managers can avoid such problems by not selling too much of the firm's products in-house and by ending wide-ranging buyer-seller relationships between business units when demand slows. Only high volume and/or high-margin products and activities should be produced in-house to obtain scale economies as the endgame progresses. Firms should use outsiders for low-volume and/or low-margin products, or should identify and link up with the best partners for joint ventures, contract processing, or sourcing arrangements early -- before their competitors reach the same conclusion and lock up the best outsiders. Because the changes I describe must be made in stages and continuously -- not using radical surgery -- managers should create intracompany competition early by forcing in-house customers to learn to use the best local suppliers and by helping in-house suppliers to create new products and services to fill the void created by de-integrating adjacent

relationships before when the advantages of vertical integration have faded.

Finally, managers should shut down obsolete facilities or convert them (and their workforce) to other uses. They could do so by selling the endgame business to its employees (by using ESOPS, leveraged buyouts, or other plans whereby its management team purchases the assets). Only the strongest firms should work to improve working conditions and manufacturing methods within the business unit facing declining demand in a quest to become the lowest-cost manufacturer, the one that remains in the endgame.

TACTICS FOR SUCCESSFUL ENDGAME

The many endgame battles Harrigan (1980) described suggest that unsuccessful firms are more likely to respond to declining demand by favoring their historical tactics than by adjusting their activities to suit the strategy option they are pursuing. Successful firms, by contrast, are flexible in their tactics. In particular, effective endgame competitors adjust their tactics along the dimensions of (1) pricing, (2) asset deployment, (3) cost effectiveness measures, and (4) timing of implementation to suit the endgame strategy pursued, as I explain below.

Increase the Investment

Pricing. If the firm intends to increase its commitment to an endgame business, it may be necessary to shade its prices downward -- if any price changes are made -- to maintain sales volumes. Pricing may also be used to edge other firms out of the industry.

Asset Deployment. The "last iceman" in an industry strives to reduce competitors' exit barriers by acquiring their assets and/or serving their customers. Simultaneously, firms that are increasing their commitment to an endgame business upgrade their products with investments for innovation, applications engineering, and quality control. Investments in promotional campaigns are made to communicate these product improvements. These outlays serve the dual purpose of reassuring customers that their vendor is dependable and warning competitors that winning the endgame will be more difficult than many of them had assumed it to be.

Cost Effectiveness. Managers that favor the increased investment strategy can ensure that their firm will be the survivor by investing in cost-reducing measures. Their campaign for doing so could include replacing obsolete manufacturing processes with investments in process innovations (to develop superior manufacturing technologies), investing in upstream players for cost-effective sourcing, and investing in downstream players to reduce distribution expenses.

Timing. Long term planning is needed to make firms capable of implementing the increased investment strategy, and this strategy is less likely to succeed if more than one firm tries to implement it. For that reason, the strategy is risky and it is important for the firm pursuing it to move preemptively into the market segments it intends to serve with broad signals to ward off copy-cats.

Hold Investment Level

Pricing. While managers are pursuing the hold investment strategy, they try to match competitors' price moves rather than instigate them -- with one exception. If prices fall, the firm may step out from the pack

to signal its price-preserving intentions by raising prices temporarily. Even when it does so, the firm's purpose is to signal cautiously that it does not desire a price war.

Asset Deployment. While the firm is in a holding pattern, managers do not close any plants. Nor do they reduce the firm's product line. Instead, they match competitors' marketing expenditures, and may even utilize excess capacity by manufacturing on a private brand basis for competitors.

Cost Effectiveness. Until managers have resolved the uncertainties that placed their firm into a holding strategy, they invest only to maintain their assets' cost effectiveness. Their objective is to use existing assets and resources more wisely.

Timing. In order to pursue an effective holding strategy, managers must heighten the level of their firm's competitor and market intelligence. Their objective is to develop contingency plans to exploit opportunities that may be created by competitors' plant closings or exits, changes in growth rates, customer preferences, et cetera.

Shrink Selectively

Pricing. When managers pursue the selective shrinking strategy, they raise prices in unattractive customer segments -- even to the point of pricing their firm out of those markets. Meanwhile they maintain historic price levels in the market segments they prefer to serve -- the lucrative and enduring customer niches -- although it may be necessary to shade prices downward slightly in order to hold these customers.

Asset Deployment. Successful implementation of the shrinking strategy requires firms to redeploy all assets towards serving the favorable customer segments. Managers must restructure their firm's

organization, as Apple Computer did in 1986 when it eliminated the rival Lisa and Apple II divisions and hunkered down to fight for a first-tier position in the stagnant market for personal computers.

Cost Effectiveness. If a firm must battle to win the most attractive customers when it pursues the shrink selectively strategy, its managers must lower those operating expenses incurred in serving unattractive customer segments. Managers strive to make their firm cost effective in the shrink selectively strategy by consolidating its product offerings, and they seek operating efficiency through centralization of activities that were previously disparate.

Timing. Advanced planning is necessary if managers hope to select the best market segments to serve when they use the shrink selectively strategy. Because they hope to pre-empt competitors from reaching those customers, timing is critical in order for this marketing campaign to succeed.

Milk the Investment

Pricing. If managers are milking an endgame business, they use price discrimination to extract as much cash from their sales as possible. They will be able to retain some customers even as they raise their firms' prices due to customers' short-term, switching-cost barriers.

Asset Deployment. Milking strategies are most effective where managers consolidate functions within the skeletal organization that results from their focused efforts to transfer resources to other product lines. Managers must be indifferent to market share when pursuing the milking strategy, and should make no reinvestments in the endgame business -- not even for maintenance. Because the milking strategy is a second best alternative to outright divestiture, managers must avoid

increasing their firm's asset base while they strive to cut operating costs.

Cost Effectiveness. Firms become cost-effective while pursuing the milking strategy by cutting selling and administrative costs. Managers learn to operate in the endgame with a significantly-reduced sales force while they milk the business. Instead of expenditures for promotional advertising, they rely on their company image (and cumulative goodwill from past advertising expenditures) for sales momentum while they run out the trapped assets. Firms that are milking their investment terminate long-term contracts and seek outsiders to handle selling, distribution, and servicing tasks for them. Their managers build alternative distribution systems, perhaps by de-integrating and using outsiders to service difficult market segments.

Timing. Although firms that pursue the milking strategy do not intend to stay long in the market, they must move quickly to capture the best prices for their products in order to enjoy abundant cash flows for the longest period. Preemption to reach the most lucrative customers is important in the milking strategy because competitors may also be trying to position themselves to milk their endgame businesses.

Successful Tactics for Cash Generators

Substitute Human Ingenuity for Bricks. Managers of troubled businesses must understand (and persuade top management) that cash generating businesses may need some new investments in order to execute specific endgame strategies, but steel and concrete should not be considered substitutes for ingenuity. Endgame managers must be wary of the technological "quick fix" because training workers on new equipment makes them so marketable that they may jump ship before the firm is ready to

redeploy them. Meanwhile, the firm's asset base in the endgame business increases.

In general, the more appropriate investments for businesses facing demand maturity and endgame are those that enhance the firm's scanning capabilities (rather than raise exit barriers associated with manufacturing, marketing, and R&D). Requests for resource allocations can be justified if they turn the mature business into a cash generator, but their payback must be rapid. The firm must not stay in a troubled industry too long without its just reward for doing so.

Corporate Heroics. If a firm is to survive when one of its industries becomes troubled, its managers must create an internal culture that recognizes the importance of products that generate cash and makes personnel assignments to cash-generating businesses sought after. Doing so may require adjustments in the firm's performance measures and the attention and support of top management. Enterprising managers can build a spirit of teamwork to cut costs and maximize productivity. In order to do this, however, employee motivation must be high. Hourly workers must be won over to the cause of endgame because they know best where the fat is that must be trimmed to be cost effective. Moreover, a dedicated cadre works smarter. The most significant experience curve benefits come from these "smart" workers, and motivated workers can save a troubled plant.

Implementation of successful endgame strategies relies upon managers who (1) recognize that they are in an environment of declining demand and excess capacity and (2) are willing to change the firm's historic tactics and strategies. The right managers can get workers to nurse old assets and jerry-rig machines into running longer. Such managers retain close

control over day-to-day activities by rotating complacent workers. Their subordinates are on the shop floor or in the office bullpen asking questions about the need to perpetuate historic activities. As they scrutinize each opportunity in comparison to its costs, they must ask "Is this activity 'fun' or do we really need it?"

Top managers must shed the idea that a cost-accountant mentality is the best one to run the business. Because attentions and overt support from top management motivate the type of swashbuckler needed to inspire heroic actions in an endgame situation, a declining business must not become a dumping ground for burned out managers. Charismatic and entrepreneurial managers should be selected for assignments in mature businesses and given free rein to change operations. Such leaders can build the spirit of cameraderie and teamwork needed to get useful ideas to percolate upward.

Manage Implementation Barriers. Although managers may wish to use the leverage of their firm's bargaining power to shift inventory risks to suppliers or distributors (in a *kanban*-like arrangement), they must anticipate the implementation problems most likely to arise and provide ways of overcoming animousities between sister business units that are not accustomed to cooperation. Many firms sacrifice synergistic (or scope) economies for lack of effective coordination systems (Harrigan, 1983, 1985 a; Porter, 1980, 1985; Teece, 1980). Most frequently, business intelligence is not communicated up and down the vertical chain adequately because business units do not share top management's long-term vision of their role in the firm's global systems. But sometimes, sister units cannot negotiate adequately with each other because they fear that affiliated units will take unfair advantage of them. Such hostilities

are counterproductive to investments in creating superior scanning systems because they destroy opportunities to tap one of the most important sources of intelligence about downstream market conditions -- the firm's internal market.

CONCLUSIONS

Survival and prosperity are possible even when an industry environment becomes unfavorable, and there are always winning firms who monitor industry behavior, do not hang on too long, make an orderly transition, involve managers and workers, and recognize the importance of timing when they pursue endgame strategies. Successful firms made careful use of strategic analysis to guide their investments -- early, painless plant closings, et cetera, and Wall Street rewarded them for "biting the bullet." Employee motivation must be high to implement many of the endgame strategies that I have described, and top management involvement is necessary in order for the highly-motivated and charismatic endgame cadre to surmount many of the implementation barriers associated with troubled industries.

Because competitors' actions can shift the balance in an industry and "inhibit" a firm from adopting the most economically appropriate strategies, timing is crucial to success in endgame. Because weaker firms have pre-empted leading firms in some endgames, it is important to scan this competitive environment with great care to anticipate how the firm might best survive in troubled times.

ENDNOTES

[1]In Strategies for Declining Businesses (Lexington, Mass.: Lexington Books, 1980), Harrigan used field studies and a delphi interview methodology to track how 61 firms in 8 U.S. industries coped with declining demand and excess capacity during the years 1960 to 1978. Sample industries included electronic receiving tubes, baby foods, cigars, leather tanning, percolator coffee-makers, synthetic soda ash, acetylene, and rayon fiber. In Strategies for Vertical Integration (Lexington, Mass.: Lexington Books, 1983), Harrigan added the experiences of whiskey distillers and petroleum refiners to her sample of endgame strategies. Sample industries were chosen from 7-digit SIC classifications using Census of Manufacturers data, concerning unit shipments.

[2]Thirty-nine percent of the businesses in Harrigan's (1980) sample earned returns on invested capital (ROI) in excess of 35%. The best-performing business unit earned an ROI of 180%.

[3]Mobil Oil delayed the shutdown of a refinery for several years by intentionally fitting it with smaller-gauged valves. This artificially-created "bottleneck" enabled the refinery to run at lower throughput volumes while incurring fewer of the cost penalties that would have been incurred by running the refinery at its most efficient, engineered capacity. In this manner, Mobil "bought time" until it could determine whether oil demand was declining to levels that made the refinery's shutdown necessary.

[4]Large and enduring pockets of demand where customers will pay premium prices for a specific firm's products are most important to a successful endgame. (In consumer behavior theory, such customers are

often called "laggards.") Without loyalty of such customers, a firm cannot pursue the "last iceman" strategy successfully.

[5]Unorthodox tactics include a variety of strategic alliances -- joint ventures, outsourcing, cross-distribution agreements, swap arrangements, and other extended value-adding alliances -- as well as cartels, mergers, and other cooperative ways of eliminating redundant and underutilized assets to avoid pressures to cut prices in the endgame.

[6]Harrigan (1981) estimated exit barrier heights using a binomial dependent variable (coded as "1" if exit occurred and "0" if exit did not occur) in an ordinary least-squares regression model. Coefficients of independent variables were interpreted as relative contributions to the probability that a particular firm would exit (ceteris paribus), and negatively-signed coefficients indicated exit barriers. Variables corresponding to these coefficients were constructed from estimates obtained during field interviews by using the delphi questionnaire constrained to values between 0 and 99 by the questionnaire's scales.

[7]Effective management of highly-valued customers' switching cost barriers is important if firms intend to continue as their vendors for products that are not being deleted. Firms sometimes resell products they have purchased from surviving manufacturers long after their plants have been shut in as a service to the highly-valued customers that constitute their most significant exit barriers. Meanwhile, firms try to ease these highly-valued customers into the use of new products where it is possible to do so.

Fewer pains are taken to avoid the inconveniencing of less-valued customers. If a firm's exit from a product line (or entire business) will not harm sales of related products (because no customers are shared

among business units), or if remaining customers are so price-sensitive, fickle, and opportunistic in that use of bargaining power over vendors that they become unrewarding to serve, abandonment of less-valued customers will occur sooner (rather than later).

[8]"Take-or-pay contracts" bind customers to purchase specified quantities of vendors' outputs or pay a penalty for not doing so. Such contracts are often used as collateral in financing capacity expansions when demand is growing because they guarantee revenues even when demand declines.

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FIGURE 1

The Endgame Strategy Matrix

	Great strengths relative to competitors for attractive niches	No strengths relative to competitors for attractive niches
Favorable Industry Structure and Demand Outlook	'Increase Investment' or 'Hold Investment Level'	'Shrink Selectively' or 'Milk the Investment'
Unfavorable Industry Structure and Demand Outlook	'Shrink Selectively or 'Milk the Investment'	'Divest Now'

FIGURE 2

Correlation between the Endgame Strategies and Success

	Number of relatively successful outcomes	Number of relatively unsuccessful outcomes	
Number of firms that followed recommendations	39	3	(42)
Number of firms that did not follow recommendations	3	16	(19)
	42	19	