The Well-Timed Strategy:

Managing the Business Cycle

Peter Navarro

Some companies appear to exhibit considerable skill in managing the business cycle. For example, during the 2001 recession, Lowe's employed an aggressive countercyclical capital expansion strategy to significantly outperform a cost-cutting and retrenching Home Depot. Dell countercyclically increased its advertising budget and gained market share from key rivals such as Gateway and Hewlett-Packard. Still other companies such as Isis, Progressive, and Avon in industry sectors as disparate as biotech, insurance, and cosmetics engaged in countercyclical hiring strategies during the recession to increase both the size and quality of their work forces at relatively lower wage levels.

In contrast to this seemingly skillful management, Kmart drastically and ill-advisedly reduced its advertising during the 2001 recession, saw its sales plummet relative to rivals Target and Wal-Mart, and wound up in Chapter 11 bankruptcy. Cisco continued on a procyclical hiring binge at premium wages during the late stages of the expansion and then was forced to lay off over 8,000 people once the recession ensued. The merchant electricity generator Calpine debt-financed a dramatic increase in capital expenditures on new power plant construction in the late stages of the expansion and then suffered severe liquidity problems as the recession cut demand and squeezed cash flow.

The interesting question these observations raise is whether there really is any "skill" that legitimately and systematically separates the business cycle's "winners" from its "losers." For the last five years, and with the help of a large army of MBA "conscripts," I have sought to answer that question as part of the Master Cyclist Project conducted at the Merage School of Business at the University of California, Irvine (see Appendix for companies analyzed).[1]

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This Project has involved extensive empirical research using multiple research methods, including a comprehensive literature review, interviews with business executives and middle managers, Annual Report Text analysis,[2] and the study of the strategic behavior of more than 180 companies and their top management teams over the course of the five-year interval going into and out of the 2001 recession.[3] The companies analyzed run the gamut from well-known large corporations such as DuPont and Citigroup that staff their own teams of economists and use their own sophisticated forecasting models to much smaller niche players such as Isis and Xilinx that few have heard of but many can learn from. The companies analyzed also span the globe—from the Mexican cement producer Cemex to Chinese real estate entrepreneur SOHO China.

The Master Cyclist Management Framework and Five Capabilities

Exhibit 1 illustrates the Master Cyclist management framework, which explains how firms seek to strategically and tactically manage the business cycle for competitive or sustainable advantage.

In this framework, the *business cycle orientation* of an organization is revealed by a complex and highly related set of business cycle-sensitive capabilities and resources that allow the organization to create value and thereby gain some form of advantage over rivals. These capabilities and resources include: the degree of *business cycle literacy* of the top management team; the deployment of various *forecasting resources*; a *facilitative organizational structure* that facilitates both the timely acquisition, processing, and dissemination of macroeconomic information as well as timely decision making relative to rivals; the observable application of a set of *business cycle-sensitive management principles*; and a *supportive organizational culture* that supports the firm's business cycle-sensitive management activities.

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Two Key Controversies

> Recessions cannot be exclusively and systematically predicted with any reasonable accuracy.[4]

There is an important controversy in the strategy literature that has much kinship to an equally vigorous debate among finance scholars over whether the stock market is a "random walk." This controversy involves whether the business cycle can be accurately forecast in a timely enough manner as to be meaningful in a strategic planning context. Some academics have argued that because the business cycle cannot be accurately forecast, it can't possibly be managed. One practical effect of this perspective has been to significantly impede progress in the area of strategic business cycle management research. In fact, successfully

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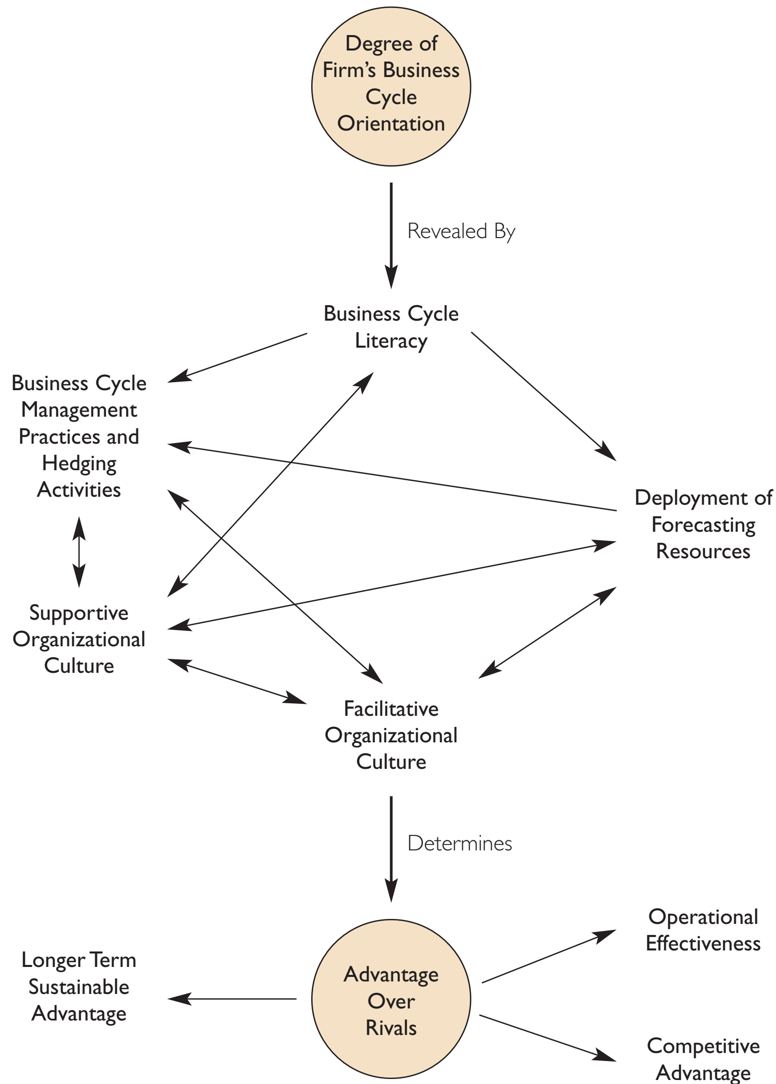
EXHIBIT 1. Managing the Business Cycle for Competitive or Sustainable Advantage



managing the business cycle *does not necessarily depend on the ability to accurately forecast its movements at all*. Rather, all that is required in some instances is that one firm has a set of capabilities that allows it to respond more swiftly than its rivals to key business cycle turning points and movements.[5]

Second, there is an equally important controversy over the "resource-based view" of the firm[6] with respect to how firms manage over the course of the business cycle. It is exceedingly difficult to empirically discern the myriad connections between the resources and capabilities of a firm in the area of business cycle management and the differences that such resources and capabilities

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might make on the demand side. Numerous scholars have acknowledged the important and distinctive role of various capabilities, co-specialized assets, and/or resource bundles in the creation and maintenance of competitive advantage.[7] However, in competitive markets, there are very few such assets, capabilities, or resources that are so rare and costly that they can't be imitated. If that is true, *how can any firm create a value that is long-lasting enough to differentiate it from its rivals in a way that builds competitive advantage*? The answer lies not in any one the five capabilities and resources identified in Exhibit 1—each of which in isolation may correctly be viewed as neither particularly rare nor particularly costly to duplicate. Rather, successful management of the business cycle depends much more on how each of these five capabilities and resources may be *uniquely bundled into sets of co-specialized assets by particular firms and their top management teams*.

In particular, by creating its own unique combination of capabilities, a firm's top management team is thereby able to gain a competitive advantage. These range from a transitory operational effectiveness (or short-term competitive advantage over the course of a single recessionary or expansionary event) to a longer-term sustainable advantage over the course of multiple phases of the business cycle.[8] This means that there is no one easy-to-duplicate "formula" for successfully managing the business cycle. Rather, there are many different paths to that same end.

Business Cycle Orientation and Business Cycle Literacy

> The ability of a firm to anticipate and respond to opportunities or pressures for change, both internal and external, is one of most important ways in which its competitiveness and viability are ensured. The nature and effectiveness of organizational responses vary in part with how top management triggers and interprets strategic issues.[9]

The top management team literature has identified important linkages between the attributes and assets of top management team members and organizational-level issues such as strategic innovation and firm performance.[10] Two of the most important attributes are the *business cycle orientation* of the firm and the *business cycle literacy* of key members of the top management team.

The term "business cycle orientation" has been adapted from the marketing literature and the related concept of a "market orientation," which is typically distinguished from a product or sales orientation. As Lutz and Weitz describe it, "a market orientation implies that the firm's decision making is strongly outwardly focused, with a continuous in-flow of information about customers, competitors, and environmental trends. This guarantees that marketing decisions are not made with blinders, but instead are firmly grounded in marketplace realities."[11]

By analogy, a business cycle orientation refers to a firm's recognition that movements in the business cycle represent a potential source of competitive or sustainable advantage and an important determinant of both the flow and stability of future earnings. Likewise by analogy, firms with a business cycle orientation will be outwardly focused on movements in the business cycle and broader

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EXHIBIT 2. The Business Cycle Orientation of Top Executives

- "My expectations of the macroeconomic environment are always in the back of my mind as I make strategic decisions."—*COO, Oakley, Inc.*
- "The monitoring of the health of the economy is essential to our success."—*CFO, Arden Realty*
- "Great companies plan for, and prosper through, all economic cycles."—*CEO, Duke Energy*
- "We shift our product line with cyclical movements—particularly leveraging different cycles in different countries and moving between the public and private sectors."—*CEO, AECOM*
- "When the economic climate changes, the best retailers look for opportunity."—*CEO, Lowe's*
- "Because of the nature of our business, DuPont was one of the first to see the economic troubles on the horizon. We made immediate adjustments to deal with recession even as debate continued about whether the United States was headed for one."—*CEO, DuPont*
- "I see an unparalleled opportunity to gain market share and expand business. The downturn has left some of our very heavily leveraged competitors weak and unable to invest in their businesses. By investing, we're a leg up and in better position to get new business or take away existing business from somebody else."—*CEO, Pittway Corporation*
- "What you try to do when you manage this type of company is broaden the franchise at the bottom of the (economic) cycle so that the snap out of the cycle can be positive." and "Terex's product and geographic diversity has helped us deliver better results overall and partially offset the soft global mining business."—*CEO, Terex Corporation*
- "Nucor has a long-standing tradition of emerging from cyclical downturns stronger than before entering them. We intend to take advantage of the economic downturn to gain market share, penetrate new markets, and emphasize cost reductions."—*Chairman, Nucor Steel*
- "Micron has a record of making the most of adverse conditions. Thus, we have come through each market cycle stronger and more energized. We will pursue opportunities that arise from the current volatility and use them to advance our position."—*CEO, Micron*
- "We've learned from the recessions of the past. . . . Because tough times or not, this company just keeps getting stronger, better, and tougher all the time."—*CEO, Caterpillar*
- "Whether or not there is a softening of the U.S. economy, IBM should be in reasonably good competitive shape. . . . For one thing, services offerings like outsourcing and hosting are cost-saving propositions for our customers. Services, in this regard, is a countercyclical business."—*Chairman, IBM*
- "We saw this recession coming three years ago. It was obvious the booming economic cycle couldn't continue. We tightened our belts. We focused on cash flow."—*CEO, Johnson & Johnson*

macroeconomic events. They will also seek a continuous in-flow of information from various forecasting resources, suppliers, and customers, all of which help the firm assess future demand for both resource planning and strategic purposes.

Exhibit 2 provides a representative sampling of observations made by top executives that strongly suggest a business cycle orientation. Executives with a strong business cycle orientation are also likely to possess a high degree of business cycle literacy.

At a minimum, business cycle literate executives will understand:

- how fiscal and monetary policy work;
- the possible effects of open market operations by the Federal Reserve on foreign investment flows, long-term interest rates, and currency values;
- the critical relationships between productivity, growth, and inflation;

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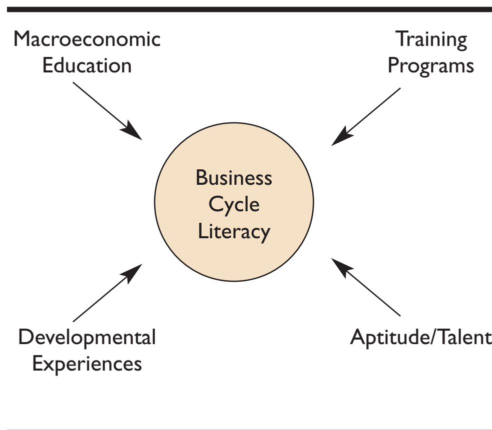
- the difference between leading, lagging, and coincident indicators; and
- why oil price shocks, Federal Reserve rate hikes, a falling stock market, and a flattening yield curve all provide strong, albeit imperfect, signals of recession.[12]

These executives will likewise be aware of such things as how movements in the business cycle may relate to the individual industry cycle(s) within which the firm operates.

Exhibit 3 illustrates four major determinants of business cycle literacy.[13] These include: the level of macroeconomic education of members of the team, training programs within the organization, any past developmental experiences of the top management team with business cycle events (particularly recessions), and, perhaps most troublesome for those firms believing that that they can quickly and easily boost their business cycle management capabilities, the aptitude and talent (or business cycle "IQ") of key members of the top management team.[14]

EXHIBIT 3. The Key Determinants of Business Cycle Literacy



The example of KB Home illustrates just how important developmental experiences in particular can be in the cultivation of both a business cycle orientation and business cycle literacy. During the 1990-1991 recession, KB Home was caught totally by surprise with a huge inventory backlog and few buyers in what had just months earlier been a red-hot housing market. While the company managed to avoid the kind of bankruptcy problems that hit many of its competitors, the company's top management team also learned from its traumatic business cycle experience and quickly began to prepare for what they viewed as the inevitable recessionary "next time."

One important adaptation involved the more formal use of regional forecasting and market survey tools. Arguably, however, an even more important step was to change the way that the company made its inventory and production decisions. In particular, as the 1990-1991 recession was ending, KB home adopted a "production-to-order" system for pre-selling homes called KBnxt. Like Dell (but with a much more complicated product with greater lead times), KB Home would no longer begin construction on a home until a contract existed with a buyer.

This strategic shift greatly minimizes the company's risk exposure at the same time that it enhances the predictability and sustainability of its results. The approach also dovetails in an elegant way with a marketing strategy aimed at turning stock production home into a more customized experience.

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Forecasting Resources and a Facilitative Organizational Structure

> All of us must estimate business cycle conditions to make effective business and investment decisions.[15]

> Strategy is based on matching opportunities and capabilities. Capabilities reside in a firm's shared know-how, and *firm structure serves to mobilize a firm's capabilities in pursuit of opportunities*.[16] [emphasis added]

In the forecasting area, any given organization faces a wide choice as to which economic indicators, tools, and models it can deploy. These range from "short hand" economic indicators (such as the yield curve and ECRI Weekly Leading Index) to the development and use of more complex econometric forecasting models and customized industry indicators.[17] There are also important choices to be made as to whether to develop in-house forecasting capabilities or to contract these capabilities out.

The deployment of forecasting resources *per se* is not a sufficient condition of effective business cycle management. It is equally, and perhaps even more, important that the top management team also design an organizational structure that facilitates the timely acquisition, processing, and dissemination of forecasting information as well as timely decision making.

The importance of, and relationship between, the deployment of forecasting resources and a facilitative organization structure can be gleaned from this stark contrast between two companies—DuPont and Conexant.

DuPont and Conexant

DuPont is one of the very few major corporations that still maintains its own team of economists. It also has built an extensive set of forecasting models, has very formal channels of communication across its business units to process and disseminate the information, regularly communicates to shareholders on the role of the business cycle in determining earnings performance, and is led by a management team with the clear authority to respond quickly to the onset of any new business cycle event. Perhaps not coincidentally, DuPont tends to perform well over all phases of the business cycle—despite the highly cyclical nature of its businesses.

For example, in anticipation of the 2001 recession, DuPont's economists were projecting as early as 1999 that GDP growth would soon be slowing down from its very strong rates. By 2000, they sensed trouble as they forecasted in that year's Annual Report "weakness in the apparel and motor vehicle markets and slower growth in the construction industry—which are end-use markets for over 40% of the company's sales."[18]

At this point, DuPont began to dramatically and countercyclically ratchet down capital expenditures—taking these expenditures from almost $7 billion in 2000 to just over $2 billion in 2001 as the recession was taking hold. Because it acted so quickly on this and several other fronts, DuPont was able to build a

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large cash reserve and ended the year with "the strongest balance sheet in nearly two decades in the worst economic environment in two decades."[19]

Throughout 2001, responding to a fall in stock prices (which are much easier to observe than movements in the business cycle per se), DuPont used its cash hoard to make seven strategic acquisitions—mostly at bargain prices in the midst of the recession. These acquisitions would give DuPont a set of valuable new technologies to penetrate new growth markets as the recovery took hold.

In contrast, consider Conexant Systems, which operates in the equally cyclical technology sector. This is a company with a CEO that by his own admission pays very little attention to the business cycle. Perhaps more interestingly, leading up to the 2001 recession, middle echelon analysts within Conexant's own supply chain management department saw that inventories at the company's distributor locations and in Taiwan were going up, that wafer supplies were becoming plentiful in Asia as capacity factors were going down, and that customers were no longer complaining if an order was shipped a few days late.

While these internally observed industry indicators all showed that the business cycle and semiconductor cycle were showing signs of turning down, Conexant's top management team nevertheless did not act on this information. Instead, the team embraced a much rosier forecast and then locked the company into very costly "take or pay" deals with suppliers predicated on what would turn out to be overly optimistic forecasts.

Ironically, when the company experienced large losses, the CEO blamed it on "the deepest, most abrupt business reversal in the history of the semiconductor industry"—seemingly oblivious to the warning sides emanating from within his own company. In fact, the real culprit in Conexant's dismal performance over the course of the recession is likely to have been an organizational structure that lacked adequate communications channels across the various layers of management and an overly centralized decision-making process that ignored vital information from its own functional areas.

The Master Cyclist Management Wheel

> Bets on macroeconomic direction are among the biggest enterprises make. . . . Ignoring the macroeconomy and assuming that things will continue more or less as they are doesn't mean a big bet hasn't been made.[20]

This Master Cyclist "management wheel" in Exhibit 4 summarizes a set of business cycle-sensitive management principles that may be applied in a timely way over the course of the business cycle. Developed from both an extensive literature review[21] and numerous case studies, these well-timed strategies and tactics encompass not just the key functional areas of marketing and pricing, production and inventory control, and human resource management. They also target the areas of risk management, the strategic implementation of capital expenditure programs, and the tactical timing of acquisitions and divestitures.

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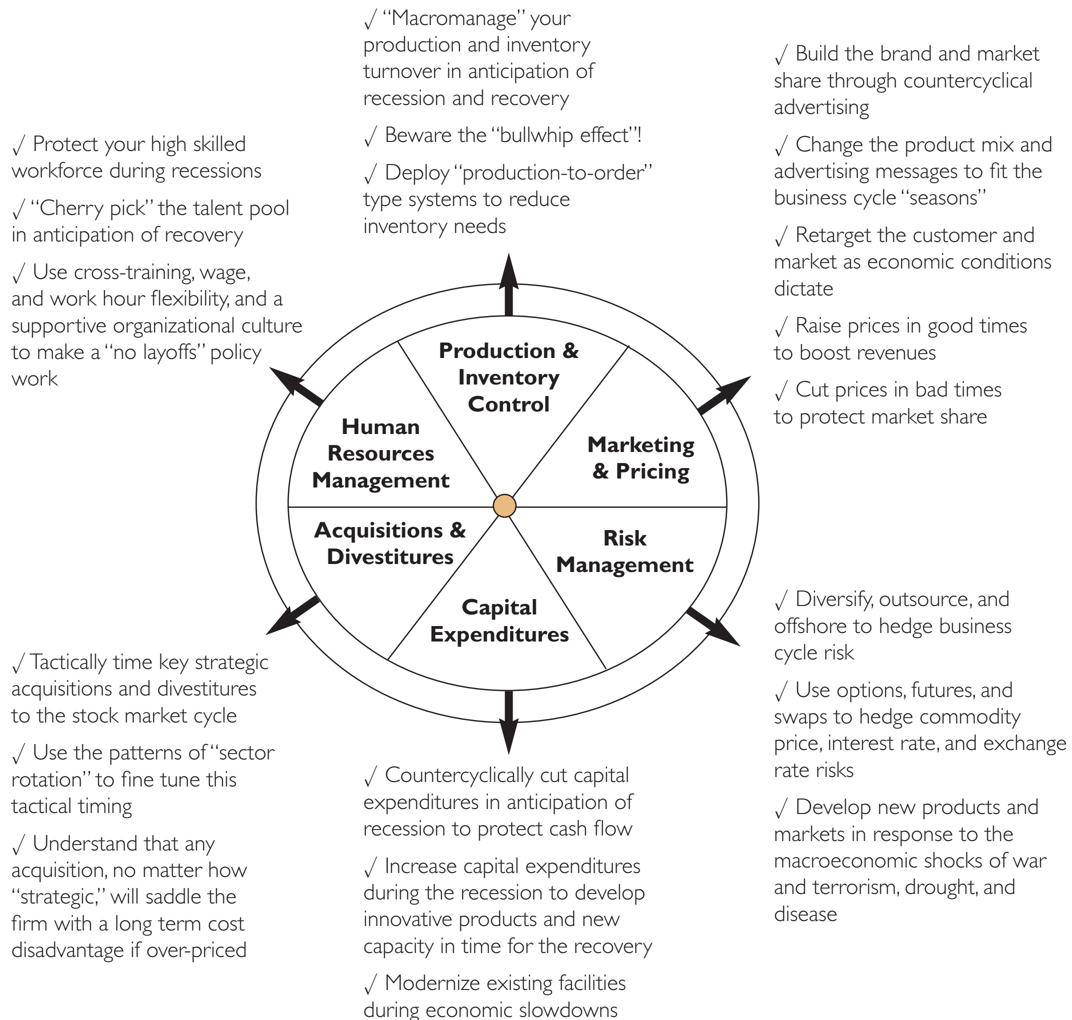
EXHIBIT 4. Well-timed Strategies and Tactics of the Master Cyclist Executive



Accordingly, this management wheel spans virtually every major activity of the modern corporation.

Marketing through the Business Cycle "Seasons"

The strategic and tactical implications of business cycle-sensitive marketing offer some rich insights into building competitive advantage. One very effective tactic involves countercyclically increasing advertising as a recession takes hold to take advantage of reduced "noise" and congestion in the market. This helps build both brand strength and market share. More subtly, the business cycle-sensitive marketer is also adept at tactically changing both the marketing

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messages and product mix to fit the customer's changing "moods" across the business cycle seasons.

Dell provides an example of classic countercyclical advertising. During the 1990-1991 recession, advertising in the entire computer hardware industry fell by an average of almost 20%. In contrast, at the very peak of the recession, Dell increased its marketing dollars by more 300%. Perhaps not coincidentally, Dell significantly increased its market share.

Closely related to the strategy of countercyclical advertising is changing the product mix over different phases of the business cycle. Such a tactical refocusing likewise recognizes that many consumers respond more to product value than style in recessionary times. An excellent example, which also illustrates why it is not always necessary to accurately forecast the business cycle to succeed, is offered by the fast food chain El Pollo Loco. By its own admission, its management team did not anticipate the 2001 recession. However, with the onset of recession and as demand and revenues began to fall at its stores, the company shifted its product line by aggressively promoting a "Leg and Thighs" deal that featured a very aggressive price point. By temporarily shifting its product line focus towards the much cheaper dark meat end, El Pollo Loco's top management team could pass savings along to its customers, highlight a purely price-driven promotion, and get credit with its customers for offering an abundance of food at a great value. The results were both increased transactions and a higher average check and total sales.

Countercyclical Human Resource Management Practices

> Countercyclical hiring may . . . provide a company with a competitive advantage. By engaging in bargain hunting downturns and hiring talent that would probably not be available during upturns, a company may gain a critical edge over its competitors.[22]

The experiences of three companies in very different industry sectors—Avon, Isis, and Progressive—highlight this important insight.

Avon's "Million Women" March

As the economy turned down in 2001, Avon's top management team recognized that the downturn would result in "an ever larger pool of women" to recruit to sell its cosmetics, perfumes, and other products. In a weak economy, Avon's products would also be more attractive to all those women who would not be able to "afford department store creams."[23]

To bring this talent into the company, Avon revitalized an old program called Sales Leadership in which the company's top performers are taught how to recruit, train, and supervise their own group of representatives. This program, coupled with a number of other equally aggressive initiatives, allowed Avon to expand its workforce by almost one third—or by roughly *one million*.

The results would be impressive. As CEO Andrea Jung would rightfully boast in the 2002 Annual Report: "In another year of depressed stock prices,

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Avon's shares rose 16%, outperforming competitors and the S&P 500" while sales grew by almost twice the historical average and net income increased by 20%. Nor was this a one-year phenomenon. In 2003, earnings increased to a record $2.78 a share while Avon's share price increased 25% to an all-time high. Moreover, Avon's success carried right into 2004, with another 27% increase in earnings per share and a 13% increase in sales.

Progressive's Recruitment Strategy

The Progressive Insurance example illustrates how a highly sophisticated top management team can strategically use a recession to transform cheap raw recruit "generalists" into a well-trained workforce. In monitoring the macroeconomic environment, Progressive's top management team pays very close attention to the unemployment rate. At first glance, this would seem to be counter-intuitive: The unemployment rate is a "lagging indicator" that has little signaling value when it comes to forecasting or anticipating recessions.

However, Progressive closely follows the unemployment rate as a central part of a human resources strategy that entails hiring college graduate "generalists" with little or no experience in the industry and then training these "raw recruits" in the Progressive way. This strategy is particularly important for Progressive because, as a service organization, labor is one of its largest expenses. In fact, this strategy was used with great effect during the 2001 recession when the company hired and trained over 3,000 external new claims representatives for a net increase of over 1,500. As Progressive's CEO Glen Renwick remarked on this strategy in the company's 2002 Annual Report, "a soft employment market afforded us high-quality, high-energy adjuster trainees."

Isis Pharmaceuticals Capitalizes on a Downturn

Isis Pharmaceuticals' particularly astute variation on this cherry picking theme may be the most sophisticated of all. It illustrates how a company patiently relied on short-term contract labor during an extended expansionary period when wage pressures were high and then used the occasion of an economic downturn to increase hiring of permanent, highly skilled workers.

During the long period of economic expansion leading up to the 2001 recession, as labor became scarce and wage pressures increased, Isis came to rely more and more on a strong presence of temporary workers and postdoctoral students that were hired with shorter-term commitments. However, once the recession hit, Isis took a very different tack. It aggressively hired from the now much deeper talent pool on a permanent basis. In this way, Isis helped to assure itself of a better caliber employee, a more committed company-employee relationship, and an established talent base in preparation for economic recovery.

Countercyclical Capital Expenditure Strategies

> Though a counter-cyclical investment strategy was observed to enhance profitability, few firms practiced this strategy.[24]

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Firms that aggressively ramp up capital expenditures during a recession may emerge in the next expansion with the lowest cost capacity available to satisfy "pent up demand." Firms may also achieve product innovations that will allow them to grab market share from rivals once the recovery is underway.

Intel offers a classic case in point. During the 2001 recession, as many of its competitors were retrenching during the downturn, Intel "did what may seem counterintuitive:" it sharply *accelerated* capital spending.[25] Much of this investment was directed into building additional manufacturing capacity utilizing two innovations—"jumbo" wafer production and a smaller 0.13 micron technology. These innovations allowed the manufacture of high-performance chips that were smaller and faster, cost less to manufacture, and cost less to operate because they used less power.

When the 2002-2003 recovery came, Intel was able to quickly and successfully launch new products like its Centrino mobile processor technology and Mobile Pentium IV-M processor months ahead of schedule. Perhaps not coincidentally, in the third quarter of 2003, as its new products entered the market, Intel reported its highest rate of growth since 1996 and saw 2003 net income rise by 81%.

Countercyclical Acquisition Strategies

> All frameworks used in strategy . . . attempt to capture the decisions made by business in the attempt to influence the "business landscape" . . . However, the frameworks rarely place these business decisions in a context where time matters.[26]

Two examples featuring the semiconductor manufacturer Micron and the credit scoring maven Fair Isaac help illustrate an almost perfect marriage between the dictates of sound corporate strategy telling us the "why" of an acquisition and the well-timed tactical implementation of that strategy telling us about the "when."

In this regard, corporate strategy today is primarily a *static* analysis. That is, corporate strategy discusses in great detail *how* static or time-independent factors (such as economies of scale or the degree of product differentiation) will determine industry structure and competitive advantage and *why* certain strategic decisions to acquire or expand or diversify should be made. However, the strategy literature has much less to say about the "*when*" or timing of implementing such strategic decisions. This is precisely where the equally critical *dynamic* role of movements in the business cycle and the related stock market and interest rate cycles come into strategic play.

Fair Isaac Patiently Waits for HNC

Fair Isaac is one of the leaders in "credit scoring systems." In 1999, the company's top management team began what would turn out to be a three-year hunt for HNC software—a 1986 spinoff from the U.S. Department of Defense. HNC owned a patented form of "predictive technology" that could be applied to

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forecast human behavior across a broad range of activities and applications. Accordingly, HNC offered strategic synergies for Fair Isaac's climb up the analytical software growth path.

Upon its first look at HNC in 1999, Fair Isaac's top management team concluded that HNC—along with much of the stock market—was considerably over-valued. However, later that year, HNC spun off one of its own business units called Retek. This dropped HNC's valuation as a stand-alone company down towards a more reasonable level. At this point, Fair Isaac took a second look. Again, however, it demurred. Still convinced HNC's rich stock price was overvalued—and symptomatic of a broader tech bubble and soft economy—the top management team continued to believe the acquisition would not be accretive to earnings, no matter how strategically attractive it seemed.

Finally, after the tech bubble burst, Fair Isaac acquired HNC in 2002—at a huge discount relative to the original 1999 asking price. As analyst Kevin Richardson observed about the deal: "It's like a dream acquisition. . . . It's been a long time that people have talked about how good these two companies fit together. . . . Although they have many of the same customers . . . the combined company could offer soup-to-nuts services, as well as gain access to new markets."[27]

In just one year after Fair Isaac finally brought HNC into its fold, revenue jumped 60%—from $392 million to $629 million. More significantly, net income per share more than quadrupled—from $0.48 per share to $2.12. This was a "dream acquisition"—highly accretive to earnings precisely because it was well timed.

Micron's "Bottom Feeding"

> Industry cycles play a vital economic role in that they create opportunities for challengers to stir up and renew the industry. While upturns create opportunities to harvest profits and to expand production, markets, and employment, it is the downturns that play the cleansing role, forcing weaker players into bankruptcy and thereby releasing resources to be picked up by stronger incumbents or challenger firms.[28]

The Micron example is similarly about a highly astute top management team that has perfected one simple strategy: purchasing chip fabrication facilities from competitors at the bottom of the semiconductor market cycle to eliminate rivals and increase market share while cutting costs and expanding production capabilities in anticipation of the next cyclical upturn. In 1998, during a deteriorating chip market, Micron acquired four internationally dispersed semiconductor fabrications plants from Texas Instruments. Strategically, these acquisitions geographically diversified Micron's chip production while at the same time eliminating significant capacity of a key rival and helping to firm up prices.

In addition, in a provision whose importance was overlooked at the time by many analysts, Texas Instruments also agreed to allow Micron royalty-free use of its patents for a full ten years. This gave Micron a sizeable cost advantage

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over two of Micron's major competitors—Hynix and Samsung—who had spent billions on similar licenses. As Micron's CEO described this multi-faceted strategic move: "We ended up with about three or four billion dollars worth of assets, and all it cost us was [$950 million] in stock."[29]

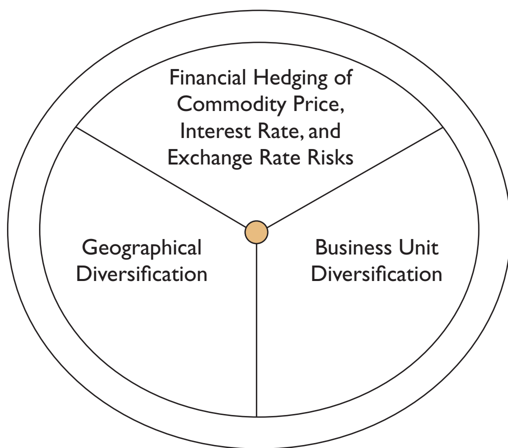
Similarly, in April of 2002, Micron took advantage of the recession-battered Toshiba to buy a DRAM operation valued at about $2 billion for only $300 million. The purchase also eliminated a key rival in the market and helped allow pricing to return to profitability. In an illustration of his business cycle orientation and literacy, Micron's CEO noted: "This transaction clearly demonstrates Micron's commitment to further strengthen its memory business in the face of a significant industry downturn."

Hedging and Opportunistically Leveraging Macroeconomic Risk

> "The challenge . . . is not to avoid business cycles but to manage in such a way that [the businesses] perform, on average, well. In my opinion, [it] is next to impossible to be in the chemical industry and to avoid cyclicity. Steady income from gas business, pharmaceuticals, and vitamins should help BASF."—Jurgen Strube, CEO, BASF [30]

Exhibit 5 illustrates three major types of risk management strategies that are practiced by business cycle-oriented organizations. These strategies include both business unit and geographical diversification. They also include the use of financial derivatives to hedge specific macroeconomic risks associated with movements in interest rates, exchange rates, and commodity prices.

EXHIBIT 5. Risk Management Strategies of the Business Cycle–Oriented Firm



While much has been written about the pros and cons of each of these strategies, there is an important distinction to be made here between firms that diversify or hedge simply to neutralize various macroeconomic risks versus more sophisticated business cycle oriented firms that actually seek to tactically and opportunistically leverage such risk.

The concept of opportunistically leveraging business cycle risk is straightforward. A recession not only poses a threat to the demand for a firm's product and its revenue streams,[31] it can also provide a firm with the opportunity to outflank a rival on multiple fronts—from marketing and pricing to human resource management and capital expenditures.

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This distinction between hedging versus leveraging risk and the importance of timing the implementation of one's strategies and tactics is illustrated the examples of Cemex and Southwest Airlines.

Cemex Leverages a Currency Crisis to Diversify Into Asia

> "Our best opportunities have come at the worst times. . . . We need to be in many markets to survive."—Lorenzo Zambrano, CEO, Cemex[32]

Cementos Mexicanos is a company that traces its origins all the way back to 1906. However, it wasn't until 1992, with several key acquisitions in Spain, that Cemex began to geographically diversify. Since that time, Cemex's strategy "to be in many markets to survive" has propelled it to its position of third largest cement producer in the world—behind only Holderbank of Switzerland and Lafarge of France. In fact, this geographical diversification strategy has been particularly well timed to events in the global macroeconomic environment by its CEO Lorenzo Zambrano, whose motto is: "Good results in bad times. Great results in good times."

Cemex's macroeconomic approach is perhaps best evidenced by its bold tactical gambit during the Asian financial crisis of 1997-1998. The devaluation of the Thai baht not only triggered a chain reaction of plunging currency values across Asia. It also resulted in a plunge in regional stock indices. To Zambrano, these "worst times" for Asia spelled a "best opportunity" for Cemex. Cemex had long had its eye on a key strategic acquisition in the Philippines. Thus, when the Philippine peso plunged—and took the Philippine stock market down with it—Cemex scooped up 30% of Rizal Cement company for a mere $93 million. Zambrano then followed that acquisition up with the purchase of another 40% of Rizal while also acquiring 14% of Indonesia's largest cement producer, PT Semen Gresik at a very steep discount.

There is another underlying dynamic in the Cemex story that helps to further illustrate the role of developmental experience in achieving business cycle literacy. The devaluing of the Mexican peso in 1994 and the resulting severe economic crisis in Mexico in 1995 had given Zambrano a very bitter taste of what can happen to a company's stock price and valuation when the local currency begins to fall dramatically. While Cemex survived this peso crisis, by the time the Asian financial crisis hit, Zambrano no doubt understood better than most executives how valuations can get significantly out of proper alignment during currency crises and thereby create well-timed buying opportunities.

Southwest Airlines' Tactical Hedging

Much of Southwest Airlines' success—more than 30 consecutive years of profitability—stems from a value proposition that features a low-budget, no-reserved-seats approach, a ticketless travel system that keeps its "back office" costs low, charismatic CEOs, and a unique organizational culture renown for its humor and high employee morale. Southwest Airlines also offers an example of a business cycle oriented firm that relies heavily on macroeconomic forecasting

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to manage all phases of its business. The company's own internal model is highly sophisticated and incorporates not only various aspects of global supply and demand, monetary aggregates, and exchange rates, but also assessments of geo-political risk.

This forecasting model has proved to be particularly useful in Southwest's fuel cost hedging tactics. Fuel costs constitute about 15% of a revenue dollar for most airlines—second only to the cost of labor. While almost all airline companies strategically engage in some fuel cost hedging, most typically only hedge less than *half*—and often well less than half—of their fuel needs. In contrast, Southwest frequently, opportunistically, and *tactically* departs from this industry practice when its forecasting models tell it to do so. A particularly profitable case in point occurred in early 2000. Southwest's executive team opted for a close to 100% fuel hedge for the third and fourth quarters based upon an internal forecast of a significant shortage of crude oil. As oil prices soared above $30, Southwest used a complex array of financial derivatives to save over $110 million in fuel costs and saw its earnings increase for the year by more than 30%—almost three times the industry average.[33]

In addition, in the second half of 2004, when oil prices soared over the $50 per barrel mark, Southwest had a full 80% of its fuel costs hedged at a price of $24 per barrel. This was in sharp contrast to other so-called "legacy carriers," including Continental (which had a 45% hedge at $36), Northwest (which had a 25% hedge at $34 to $41), and Delta (which was *completely unhedged*).[34]

A Supportive Organizational Culture

> "Co-founder Gordon Moore came up with three rules of recessions that have become ingrained in Intel's culture. They are: Economic downturns always end. Some companies emerge from recessions stronger than before. You can't save your way out of a recession."[35]

The final major capability that helps reveal an organization's business cycle orientation is a *supportive organizational culture*. Its importance is demonstrated by the highly complementary examples of Paccar and Nucor.

Paccar Prepares Its Employees for the Worst

The big rig manufacturer Paccar operates in one of the most cyclical of industries. Nevertheless, the company has been able to consistently turn a profit for more than 65 years. As evidence of both its business cycle orientation and high degree of business cycle literacy, Paccar's top management team has adopted a strategy of geographically diversifying risk. It also closely follows key industry indicators (e.g., freight tonnage) and prides itself in its almost accordion-like ability to ramp up or ramp down its production at the first sign of recovery or recession.

At least part of Paccar's nimbleness may be attributed to the company's own pragmatic and supportive culture. As one assembly line operator described it: "Workers appreciate how [executives] don't go into denial or stonewall when

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a downswing is coming. They are frank and open about cuts, and . . . relations between the company and its unions seem to be good."[36]

To build this supportive culture from the ground up, at every new employee orientation, workers are warned that the truck business is cyclical and some layoffs are almost inevitable. It is in large part because of this frankness that once the economy recovers, loyal workers typically find their way back to Paccar's factories rather than those of the competition. In this way, Paccar is able to retain much of its highly skilled workforce even though many of its members are periodically laid off. The result is considerable savings in recruitment and training costs.

Nucor Shares the Pain

Nucor Steel is also in a highly cyclical industry and, like Paccar, deploys considerable forecasting resources and pays very close attention to a variety of industry indicators. However, unlike Paccar, rather than quickly laying off its workers during recessions, *Nucor has adopted just the opposite policy*—promising its workers no layoffs. Nucor's no layoff policy is driven by two components. A "share the pain" program allows the company to taper its labor costs in recessions without loss of productive capacity. The company also "cross trains" its work force so that it can be shifted to other functions such as maintenance or modernization efforts as downturns occur.

As with Paccar, however, what ultimately drives this policy is a highly supportive organizational culture in which all employees—from the executive suite to the steel mill floor—willingly accept reduced hours and pay in recessionary times in exchange for long-term employment. This system provides Nucor with the same accordion-like capability of Paccar to trim labor, production, and inventory costs, but the goal is achieved in a completely different fashion—*with a supportive culture being the common thread*.

Conclusion

Managing the business cycle for competitive advantage remains one of the most important but neglected areas in all of management strategy. The framework and findings introduced here represent essential analytics for any organization that seeks to improve its performance over the course of the business cycle.

APPENDIX
Companies Studied in The Master Cyclist Project

3M
Abbott Labs
Abercrombie & Fitch
Aetna
Affymetrix
Agilent Technologies
AIT
Alberto Culver
Alcoa

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Alcon Laboratories
Allstate
Altria
AMAT
Ameren Corporation
America West Airlines
American Express
American Standard
Anheuser Busch
Aon
Arden Realty
Aspect Communications
Avon
BASF
Beckman Coulter
Berkshire Acquisition
Berkshire Hathaway
Best Buy
BJ Services
Boeing
Canon
Capital One Financial, Inc.
Case New Holland Global N.V.
Caterpillar
Centex
China Greentown
Circuit City
Citigroup
Comcast Corporation
Conexant
Cooper Tire and Rubber Company
Countrywide
CSC
CVS
Dana Corporation
Danaher MCC
Dell
Delta Air Lines
Dillards
Disney
Dow Chemical
Dupont
Earthlink
Edwards
El Pollo Loco
Electronic Data Systems
EMC Corporation
Equifax
Escrows For You
Exelon Corporation
Fair Isaac Corporation
Fannie Mae
Fedex, Corp.
Finova
Fleetwood
Ford Motor
Forest Laboratories
Fortune Brands
Gap, Inc.
Gateway
General Electric
Geneva
Georgia Pacific
Gillette
Goldman Sachs
Goodyear
Guidant
Halliburton
Hewlett Packard
Home Depot
IBM
IndyMac Bank
Ingram Micro
Intel
Interpublic Group
ITW
Jabil Circuit
Jet Fittings
John Deere
Johnson Controls
Johnson & Johnson
KB Homes
Kimberly Clark
Kohl's Corporation
Kroger
Labor Ready
Lehman Brothers
Lowe's
Luxottica
Manpower
Marriott International
Marsh & McLennan
Masco Corporation
Mattel
Maytag
McDonald's
McKesson Corporation
MeadWestvaco
Media General
Merck & Company
Metlife, Inc.
Mitsubishi Motors
Motorola
MSC Software
MSProd QTC Medical
Navistar
Network Appliance
Newell Rubbermaid
Nissan
Nordstrom
Norfolk Southern Corp.
Northrop Grumman
Nu Horizons
Nucor
Oakley
Omnicom Group, Inc.
Paccar
Pacificare
PacSun

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Palm Inc.
Park Place
Parsons
Perkin Elmer
Phil Bui
PIMCO
Pitney Bowes
Playtex
Proctor & Gamble
Progressive
Providian Financial
Qualcomm
Raytheon
Reuters
Revlon
Reynolds America, Inc.
Rosemount Analytical
Royal Caribbean
SBC
Schering-Plough
Skyworks Solutions
Singapore Airlines
SOHO China
Solectron Corp.
Southwest Airlines
Starbucks
State Farm
State Street
Super Value
Tappan Investments
Tech Data
Tektronic
The Gap
The Nature Conservancy
The TJX Companies, Inc.
Thor Industries
Time Warner Inc.
Toshiba
Toyota
Toyota Motors
Union Pacific
United Health Group
Univision
Unumprovident
UPS
US Steel
Veritas
Verizon
Viacom
Wachovia
Walgreens
Wal-Mart Stores
Wells Fargo
Wendy's International, Inc.
Whirlpool Corporation
Winn-Dixie
Wireless Semiconductor
WW Grainger
Xilinix
Yellow GPS

Notes

1. The Master Cyclist Project was begun in 2000 as an analytical, integrative, and experiential vehicle to help MBA students in my core curriculum macroeconomics classes to better understand the global macroeconomic environment through the lens of management strategy. Over the last five years, students both individually and in groups have conducted in-depth business cycle management analyses of more than 180 companies using the conceptual framework presented in this article.
2. "Annual Report Text" analysis is frequently used in the top management team research. See, for example, M.D. Michalisin, S.J. Karau, and C. Tangpong, "Top Management Team Cohesion and Superior Industry Returns," *Group & Organization Management*, 29/1 (2004): 125-141.
3. Two important aspects of the study may limit the ability to generalize from its findings. First, the companies were not chosen in a formal random process. Second, the 2001 recession was unusually short and mild while the recovery was characterized by unusually slow job growth.
4. G.D. Kane, R.M. Brown, and L.N. Killough, "Preparing for the Next Business Downturn: How Managers Can Hedge Against the Risks of Future Recessions." *Review of Business*, 16/1 (1994): 21-26, at p. 22.
5. This is particularly true in functional areas such as marketing and pricing where lead times are shorter and reaction times are more crucial, while less so in areas such as expenditures in capital-intensive industries with longer lead times.
6. The resource-based view literature is an extensive one. Seminal studies include J. Barney, "Firm Resources and Sustained Competitive Advantage," *Journal of Management*, 17/1 (1991): 99-120; R. Rumelt, "Toward a Strategic Theory of the Firm," in R. Lamb, ed., *Competitive Strategic Management* (Englewood Cliffs, NJ: Prentice-Hall, 1984), pp. 556-570; B. Wern-

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erfelt, "A Resource-Based View of the Firm," *Strategic Management Journal*, 5/2 (1984): 171-180. See also R.P. Castanias and C.E. Helfat, "Managerial Resources and Rents," *Journal of Management*, 17/1 (1991): 155-171; I. Dierickx and K. Cool, "Asset Stock Accumulation and Sustainability of Competitive Advantage," *Management Science*, 35/12 (December 1989): 1504-1511.

7. See, for example, C.E. Helfat and M.A. Peteraf, "The Dynamic Resource-Based View: Capability Lifecycles," *Strategic Management Journal*, 24/10 (October 2003): 997-1010; R. Makadok, "Towards a Synthesis of Resource-Based and Dynamic Capability Views of Rent Creation," *Strategic Management Journal*, 22/5 (May 2001): 387-402; M. Tripsas, "Unraveling the Process of Creative Destruction: Complementary Assets and Incumbent Survival in the Typesetter Industry," *Strategic Management Journal*, 18/6 (Summer 1997): 119-141; D.J. Teece, "Towards an Economic Theory of the Multiproduct Firm," *Journal of Economic Behavior and Organization*, 3/1 (March 1982): 39-63.
8. As Michael Porter first noted, one cannot gain a competitive advantage on the basis of operational effectiveness because ultimately it becomes no more than the level playing field upon which all must compete to survive. M.E. Porter, "What Is Strategy?" *Harvard Business Review*, 74/6 (November/December 1996): 61-78. *Sustainable advantage* provides a form of competitive advantage that persists over time.
9. M.F. Wiersema and K.A. Bantel, "Top Management Team Demography and Corporate Strategic Change," *Academy of Management Journal*, 35/1 (1992): 91-121, at p. 91.
10. Representative studies include C.J. Collins and K.D. Clark, "Strategic Human Resource Practices, Top Management Team Social Networks, and Firm Performance: The Role of Human Resource Practices In Creating Organizational Competitive Advantage," *Academy of Management Journal*, 46/6 (2003): 740-751; D. Norburn and S. Birley, "The Top Management Team and Corporate Performance," *Strategic Management Journal*, 9/3 (1988): 225-237; A. Murray, "Top Management Group Heterogeneity and Firm Performance," *Strategic Management Journal*, 10 (1989): 125-141.
11. In P. Navarro, *What the Best MBAs Know: How to Apply the Greatest Ideas Taught in the Best Business Schools* (New York, NY: McGraw-Hill, 2005), p. 90.
12. Numerous studies indicate that the yield curve, which is a key component of the both the Index of Leading Indicators and the ECRI Weekly Leading Index, is one of the most reliable predictors of economic slowdown or recession. See, for example, A. Estrella and F.S. Mishkin, "Predicting U.S. Recessions: Financial Variables as Leading Indicators," *Review of Economics and Statistics*, 80/1 (February 1998): 45-61.
13. One of the key findings of my research is that a significant fraction of top executives appear to exhibit a relatively low degree of business cycle literacy. This may simply be a reflection of the current state of business education. Fully one-third of the top 50 business schools do not require macroeconomics in the core curriculum. Many schools that do offer macro in the core teach it with little direct application to business cycle management while, unlike with managerial economics, there is a dearth of applied macroeconomics textbooks for the MBA market.
14. An analysis of the education, training, and other forms of developmental experiences is a very familiar tool of the top management team literature to discern particular capabilities. See, for example, D.C. Hambrick and P.A. Mason, "Upper Echelons: The Organization as a Reflection of its Top Managers," *The Academy of Management Review*, 9/2 (1984): 193-206; R.M. Grant, A.P. Jammine, and H. Thomas, "Diversity, Diversification, and Profitability among British Manufacturing Companies, 1972-84," *The Academy of Management Journal*, 31/4 (1988): 771-801; S. Wally and M. Becerra, "Top Management Team Characteristics and Strategic Changes In International Diversification," *Group & Organization Management*, 26/2 (2001): 165-188.
15. C.L. Hohenstein, "Never Mind the Recession, Plan Ahead for the Next Business Boom," *Business Credit*, 91/8 (1989): 34-37, at p. 34.
16. D.P. Baron and D. Besanko, "Informational Alliances," *The Review of Economic Studies*, 66 (1999): 743-768, at p. 743.
17. The modern literature on the efficacy of various economic indicators and forecasting models is well-represented by M. Chauvet and J.M. Piger, "Identifying Business Cycle Turning Points in Real Time," *Review—Federal Reserve Bank of St. Louis*. 85/2 (2003): 47-61; F. Diebold and G. Rudebusch, "Scoring the Leading Indicators," *Journal of Business,* 62/3 (1989): 369-391; J. Hamilton, "A New Approach to the Economic Analysis of Nonstationary Time Series and the Business Cycle," *Econometrica,* 57/2 (1989): 357-384; C. Harvey, "Forecasts of Eco-

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nomic Growth from the Bond and Stock Markets," *Financial Analysis Journal*, 45/5 (September/October 1989): 38-45; S.N. Neftci, "A Time-Series Framework for the Study of Leading Indicators," in K. Lahiri and G.H. Moore, eds., *Leading Economic Indicators: New Approaches and Forecasting Records* (Cambridge: Cambridge University Press, 1991), pp. 57-62.

18. DuPont, 2000 Annual Report.
19. DuPont, 2001 Annual Report, p. 2.
20. J.S. McCallum, "Management and the Macroeconomy," *Ivey Business Journal*, 63/3 (1999): 71-73, at p. 73.
21. In marketing, see, for example, N.K. Dhalla, "Advertising as an Anti-Recession Tool," *Harvard Business Review,* 58/1 (1980): 158-165; A. Shama, "Management and Consumers in an Era of Stagflation," *Journal of Marketing*, 42/3 (1978): 43-52. In human resource management, see, for example, C.R. Greer and Y. Stedham, "Countercyclical Hiring as a Staffing Strategy for Managerial and Professional Personnel: An Empirical Investigation," *Journal of Management*, 15/3 (1989): 425-440; C.R. Greer, D.L. Jackson, and J. Fiorito, "Adapting Human Resource Planning in a Changing Business Environment," *Human Resource Management*, 28/1 (1989): 105-123. McCallum has looked briefly across functional areas in J.S. McCallum, "Yes, Managers, There Is Still a Business Cycle," *Business Quarterly*, 56/1 (1991): 36-40. For a formalization of the principles, see P. Navarro, "Principles of the Master Cyclist," *Sloan Management Review*, 45/2 (2004): 20-24.
22. C.R. Greer and T.C. Ireland, "Organizational and Financial Correlates of a 'Contrarian' Human Resource Investment Strategy," *The Academy of Management Review*, 35/5 (1992): 956-984, at p. 957.
23. Claudia H. Deutsch, "Avon Is Sitting Pretty Despite Slow Economy," *International Herald Tribun*e, June 3, 2003, p. 13.
24. B. Mascarenhas and D.A. Aaker, "Strategy over the Business Cycle," *Strategic Management Journal*, 10/3 (May/June 1989): 199-210, at p. 208.
25. 2001 Annual Report Letter to Stockholders.
26. John Mathews, "Strategy and the Crystal Cycle," *California Management Review*, 47/2 (Winter 2005): 6-32, at p. 6.
27. Dan Fost, "Fair Isaac Merging with HNC Software," *San Francisco Chronicle*, April 30, 2002.
28. Mathews, op. cit., p. 7.
29. Will Wade, *Electronic Engineering Times,* November 5, 2001, p. 39.
30. "Managing the Business Cycle at BASF," *Chemical Week*, December 16, 1992, p. 22.
31. At least some industries see increased demand for their products and services during recessions. For example, a firm selling outsourcing services is likely to benefit from a recession as other firms seek to cut their costs by contracting out tasks that are not mission critical.
32. "Manager: Lorenzo Zambrano Trevino," *Business Week,* International Edition, October 26, 1998.
33. Melanie Trottman, "Surging Fuel Costs Hit Struggling Airlines Hard—Surcharges, New Jets Help, but Losses Mount, Hedges Can't Cover Soaring Bills," *The Wall Street Journal*. August 19. 2004.
34. John Gilbert, Gen Re Capital, *Reflections*, September 2004 Newsletter, Issue 51, <www.genre.com/sharedfile/pdf/ReflectionsSept2004.pdf>.
35. "Making the Most of Tough Times," *Business Week Online*, October 22, 2002.
36. Luke Timmerman, "Paccar's Rough Road," *Seattle Times*, September 24, 2000, p. 61.