THE FREEMAN
IDEAS ON LIBERTY

The Rise of Market-Based Management

by Jerry Ellig and Wayne Gable

> "Survival is very uncertain in an environment filled with risk, the unexpected, and competition. Therefore, a company must have the commitment of the minds of all of its employees to survive. . . . We know that the intelligence of a few technocrats—even very bright ones—has become totally inadequate to face these challenges."
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> —*Konosuke Matsushita*[1]

Imagine a history class in the year 2095—perhaps some kind of "virtual class." The instructor is comparing two basic kinds of organizations prevalent 100 years earlier. One involved hundreds of millions of people; the other usually involved hundreds of thousands at most. One had no specific purpose; the other had a specific mission. One had no official "management"; the other had a president, profit centers, and lots of managers. One had no bank accounts, no owners, no legal identity—it was called a "society." The other had all of these things—it was called a corporation.

Despite these major differences, the two shared some similarities. Both were made up of people who wanted to live and work together in harmony to accomplish their individual goals. In both, the people had to coordinate their actions to accomplish their goals.

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Experts constantly debated how to improve these two types of organizations. For society, the twentieth century produced two alternative models: the hierarchical, authority-driven command model, and the decentralized, self-organizing free enterprise model. By 1995, the command model had failed miserably in every society that tried it. For the corporation, the command model dominated management thinking for most of the century. But by 1995, the command model had failed in business too. By the end of the century, corporations organized according to the command model were recognized as suffering from many of the same problems as command-based societies. But where would business leaders look for a new paradigm?

We believe history will show that a growing number of executives looked to the free market system for new management insights. Centrally planned economies collapsed because they failed to use the knowledge that is dispersed in the heads of many individuals and often hard to communicate to the central planners. Centrally planned business firms face a similar fate, for similar reasons. Just as socialism lost the allegiance of most of its citizens, so too have "command-and-control" management principles lost the allegiance of many executives. Companies both at home and abroad are searching for a new management paradigm to replace the old view based on hierarchy, top-down planning, and the giving of orders.

Over the years, a growing number of businesses have shifted to organizational forms and management methods based on the principles of a free society and market economy. This emerging management approach, which we call "Market-Based Management," promises to outperform older management paradigms for the same reasons that free economies have outperformed planned economies: it makes better use of the knowledge that is dispersed among many people in the organization.

The Old Paradigm: Scientific Management and Central Planning

For years, American business was dominated by a central-planning paradigm credited to Frederick Taylor.[2] Taylor argued that management is a science that can be taught. In search of higher productivity, Taylor advocated systematic study to improve upon the best prevailing production practices of his day. Aided by time-and-motion studies, managers would ascertain the best way to perform each task, select the best people for each task, and teach them the one best way. Taylor laudably sought to increase business productivity so that both wages and profits would rise. Thus, he sought to replace labor-management confrontation with a harmony of interests founded on greater productivity.

In Taylor's view, managerial direction was key to enhancing productivity, because manual laborers were generally incapable of understanding the best way of doing their jobs. In a discussion of handling pig iron, for example, Taylor noted,

> This work is so crude and elementary in its nature that the writer firmly believes that it would be possible to train an intelligent gorilla so as to become a more efficient pig-iron handler than any man can be. Yet it will be shown that the science of handling pig iron is so great and amounts to so much that it is impossible for the man who is best suited to this type of work to understand the principles of this science, or even to work in accordance with those principles without the aid of a man better educated than he is.[3]

This situation was not unique to pig-iron handling; "in almost all of the mechanic arts the science which underlies each workman's act is so great and amounts to so much that the workman who is best suited actually to do the work is incapable (either through lack of education or through insufficient mental capacity) of understanding this science."[4] Taylor's methods generated significant productivity increases when applied to uneducated workers doing repetitive tasks. But followers tried to develop his ideas into a universal approach to be used in contexts quite different from the ones Taylor originally studied. A school of thought, "Scientific Management," emphasized that management's job is to give orders, while labor should follow these orders. This worldview has shaped labor-management relations for most of the twentieth century.

Advocates of Scientific Socialism also cited Scientific Management in support of their grand vision for society. In the Soviet Union, both Lenin and Trotsky admired Scientific Management and thought it was one of the important features of capitalism that socialists should imitate. In their view, centralized planning of the entire economy was just a logical extension of centralized planning within the factory.[5]

In democratic countries, advocates of greater government planning also seized on Scientific Management in support of their views. Rexford Tugwell, a prominent adviser to Franklin D. Roosevelt, declared that the greatest economic event of the nineteenth century occurred when Taylor first timed some shovelers in a steel plant so that he could instruct them how to do their job more efficiently. Tugwell and many other New Deal intellectuals believed that

Scientific Management "would, in the hands of the state, provide the tools for the renovation of the economy at the practical organizational level, for the overall rationalization so long awaited to repair the damage done by an unplanned business order."[6]

In 1932, H.S. Person, managing director of the Taylor Society in New York, endorsed the employment of Scientific Management to plan society as efficiently as industrialists planned factories. Taylorism, he believed, ushered in a "surplus economy" of material abundance. The Great Depression occurred because industrialized nations had not yet adopted the appropriate social-management techniques. Policymakers needed to enunciate a social objective of "production for measured demand at the least social cost" and institute conscious organization to accomplish the objectives.[7]

Though motivated by humanitarian concern, Scientific Management possessed a major blind spot: it ignored the importance of dispersed and tacit knowledge. In an organization of any significant size, authoritarian managers can be little more effective than central economic planners, because they lack the requisite knowledge. Much relevant knowledge is dispersed in the heads of many people in the organization, and much of it cannot be communicated to a central point for processing. Firms built on the central-planning model suffer from the same "fatal conceit" that afflicts centrally planned economies.[8]

The Reckoning

Given the commonalities between Scientific Management and central planning, it is no surprise that authoritarian firms encountered trouble when challenged by rivals using management methods more consistent with the principles of a free society:

• In the automobile industry, American companies found themselves out-competed by Japanese companies during the 1970s and early 1980s. The principal reason was that quality improvement methods pioneered by Japanese firms required them to reorganize the workplace in ways that let workers and work teams use their local knowledge to improve production processes.[9]

• In the steel industry, large integrated steel mills lost enormous ground in the 1980s to "mini-mills" like Nucor Corporation, based in Charlotte, North Carolina. Nucor rewards its teams of plant workers with weekly performance-based bonuses, and workers apply their own tacit knowledge to get more output from production machinery than even the machinery's manufacturer thought was possible.

• In the oil industry, Wichita-based Koch Industries grew into a $24 billion company while many major oil companies experienced massive layoffs. The firm's chairman and CEO, Charles Koch, leads a company-wide effort to apply the insights of Ludwig von Mises, Friedrich Hayek, and other free-market scholars to all aspects of the firm's business.[10]

For 50 years, management researchers have criticized Scientific Management, proposing alternatives under such varied names as "human relations," "Theory Y," "Theory Z," and even "Liberation Management."[11] Market-Based Management proposes a new, alternative model thoroughly grounded in the principles of a free market and free society. To some extent, market-based management is consistent with earlier critiques, but it also adds a new, systemic approach that allows managers to identify the concepts and tools most consistent with market principles.

Elements of Market-Based Management

Several key elements account for the superior quality of life in a free society, and analogous elements exist inside organizations. The accompanying table identifies significant elements contributing to the health of both market economies and organizations.

• **Comparative Advantage and the Firm's Mission System**

In 1776, Adam Smith argued that the fundamental factor explaining economic prosperity is an advanced division of labor.

Six Key Systems in Market Economies and Organizations

Market Economy	Organization
Specialization through comparative advantage	Mission system
Rules of just conduct	Values and culture
Property rights	Roles and responsibilities
Price system	Internal markets
Market incentives	Compensation and motivation
Free flow of ideas	Generation and use of knowledge

Many economists have elaborated this theme into the theory of comparative advantage, which demonstrates how each individual can expand the wealth of society by specializing in activities in which he can create the most value at the lowest sacrifice of alternative products or services. F.A. Hayek added another dimension by emphasizing the division of knowledge: every individual is an expert on something, and overall prosperity depends crucially on each person's ability to make the decisions that he alone has the best knowledge to make.[12]

The organizational equivalent of specialization by comparative advantage is the "mission system." This system includes strategic planning—an understanding of how the firm's core competencies allow it to create value, and at what cost. But the mission system also includes a dissemination of this understanding to every individual in the organization, such that every person knows how his actions advance the mission of the organization. Like specialization in a market economy, the mission system creates situations allowing individuals to simultaneously serve society while serving themselves.

Koch Industries is one company working to implement a strong mission system. Various business units develop their own missions that are broadly consistent with the overall corporate mission. Individual employees are also expected to develop personal missions linking their own knowledge, skills, and aspirations with the mission of their business. In this sense, the mission is less an inspirational device than a compass guiding thousands of employees' independent decisions. The compass metaphor is especially apt, because the mission does not *direct* people to do specific things; rather, it helps them orient their activities to those of everyone else in the organization.

- **Rules of Just Conduct, Values, and Culture**

Investment, production, and exchange do not occur in a vacuum. A society's "rules of just conduct" that define acceptable and unacceptable behavior exercise a powerful influence on economic activity.[13] Where plunder is practiced and lying goes unpunished, people have strong incentives to refrain from productive activity and long-term commitments. On the other hand, if a society's formal and informal rules are grounded in respect for the individual, they unleash tremendous creative forces. Values that promote prosperity—in societies and in organizations—include respect for personal dignity and property, intellectual honesty, humility, openness to new ideas, and the freedom to question established practices.

These values may sound like "motherhood and apple pie," but the real challenge is implementing them in practice. A Brazilian-based company called Semco provides some examples of management's respect for spontaneous order. The company abolished time clocks and official work hours in its plants. Instead, groups of employees set their own work hours, based on their own preferences. When group members need to be in the plant at the same time, they all show up, even though no manager tells them to do so. Work groups are measured on the amount they produce, rather than the hours they work. The company's principal owner, Ricardo Semler, argues that adults manage to coordinate their activities outside the workplace without managerial supervision, so spontaneous coordination of work hours and other matters in the workplace should be no big surprise.[14]

- **Property Rights, Roles, and Responsibilities**

In a free market, property rights play a key role in both mobilizing knowledge and providing incentives. Private property divides control over resources into distinct spheres, within which individuals can use their own knowledge and judgment. Those who find better ways of using their property to serve consumers tend to earn profits, gain control over resources, and hence make more significant decisions as time passes. Those with poor judgment tend to lose control of their property and, hence, lose the ability to make decisions about the use of resources.

Companies too can employ these principles in thinking about roles, responsibilities, and authorities. In many companies, a person's ability to make decisions depends on his position on a hierarchical organizational chart, length of service, corporate politics, or pure luck. In a market-based firm, one's ability to hire, fire, spend money, and manage assets depends on a past track record, much as a homeowner's ability to borrow money depends on a credit record.

Tamko Roofing Products, based in Joplin, Missouri, puts these principles into practice when it decides who can spend how much money. The company has never used budgets to plan how much will be spent or what it will be spent on. As Ethelmae Humphreys, the company's CEO, puts it, "If we need to spend money, we spend it. If we don't, we don't." Managers and employees throughout the organization have spending authorities that allow them to exercise wide discretion about corporate purchases. As successful people take on new responsibilities, they may well receive new levels of spending authority needed to do the job.

- **The Price System and Internal Markets**

The term "market-based management" often conjures up the image of employees charging other employees prices for products and services inside the firm. And indeed, an internal price system is one critical element of market-based management.

Private property rights give individuals the opportunity to exercise their own judgment, and the price system helps ensure that one individual's independent decisions are coordinated with those made by millions of other people. The informational benefits of prices in markets are well known, but the benefits of pricing inside the firm are often less fully appreciated. In reality, many parts of large business firms operate much like bureaucracies: top management provides resources for services like accounting, public affairs, and information services, and these departments are then sent forth to do good for the company. Since the internal customers for these services pay no prices, the results are predictable: shortages, queuing, and growing overhead as top management shovels more money into enterprises that are effectively giving away their services.

A wide variety of companies have decided to change this system by making internal customers pay prices for the "overhead" services they formerly consumed for free. Companies using internal prices for corporate services include Bell Atlantic, Koch Industries, Clark Equipment, Weyerhaeuser, and Pump Systems. These companies range from small to large, and they span a wide range of industries. Companies adopting internal pricing cite several benefits, including reduced overhead expenses, closer relationships between internal customers and suppliers, and continuous "rightsizing" as voluntary transactions reveal which corporate services can be better acquired on the outside market.[15]

- **Market Incentives and Motivation**

Entrepreneurs earn profits by thinking up new ways to create value for others. No one orders them to be creative; they simply find that they can make themselves better off by making their customers better off as well.

In business, though, employees frequently get raises and promotions for following orders, building political skills, attaining a specific rank, or simply hanging around for a long time. Some of this occurs because of union contracts, but such incentives are also widespread in managerial compensation schemes. As one corporate executive noted, "There must be better reasons for giving raises than the fact that the earth went all the way around the sun again."

Nucor Corporation has found a better way. At Nucor, substantial employee bonuses, paid weekly, are tied to production results that specific teams of employees can directly affect. Higher output leads to higher bonuses, and bonuses can easily exceed a worker's base pay. As a result, workers show up for work early to ask the previous shift how the equipment is running. They take extra care in maintenance and discourage each other from taking unnecessary sick days. In short, the incentives of Nucor's work teams are so well aligned with the corporate mission that little "management" of employees is required.[16]

- **Free Flow Ideas and the Use of Knowledge**

Freedom of action and freedom of exchange are critical elements of a market economy, and so is freedom of speech. Prices summarize a great deal of information, but because real-world markets are disequilibrium markets, prices do not summarize everything entrepreneurs and customers need to know. As a result, individuals need the freedom to exchange ideas, debate new suggestions, and advertise their products and services to potential customers.

Most corporations today espouse these ideals, but many would do well to ask themselves questions like the following.

- Do operating units supply detailed operating data to headquarters?
- Are employees directed because they lack access to information they need to make business decisions?
- Are accounting systems designed for management control instead of furnishing information to operating personnel?
- Do performance evaluations include only the views of the boss, instead of information from all of an employee's major "customers"?

An organization that can answer "yes" to these questions is fundamentally channeling information to the decisionmakers at the top of a pyramid, instead of letting employees make decisions based on their own local knowledge.

Concluding Comments

The failure of command-based societies provided one of the most powerful lessons of the twentieth century. The downfall of Soviet central planning confirmed the flaws in the command paradigm. The striking differences in living standards between West and East Germany, or mainland China and Hong Kong, should persuade any skeptic that socialism's failure was not due to unique aspects of Russian history or culture. Instead, the blame rests with fundamental flaws in the command approach—an approach that bears striking similarities to the dominant corporate management paradigm of the twentieth century.

Human experience has shown that market economies produce prosperity through the interaction of specialization, rules of just conduct, private property, the price system, incentives, and open communication. Given the size of many business organizations, it seems logical to adapt free market principles to improve management practice.

The idea of market-based management is part prediction and part prescription. The prediction is that firms will become more market-based to compete in the global economy. The prescription is that firms can shorten their learning process by applying lessons already learned in free societies. □

1. Konosuke Matsushita, "The Secret is Shared," *Manufacturing Economics* (February 1988), p. 15.
2. Frederick W. Taylor, *Principles of Scientific Management* (Easton: Hive Publishing Company reprint, 1985 [1911]).
3. Taylor, pp. 40–41.
4. Taylor, p. 41.
5. Peter J. Boettke, *The Political Economy of Soviet Socialism* (Boston: Kluwer Academic Publishers, 1990), pp. 105–6.
6. Judith A. Merkle, *Management and Ideology: The Legacy of the International Scientific Management Movement* (Berkeley: University of California Press, 1980), pp. 260–61.
7. H.S. Person, "The Approach of Scientific Management

to the Problem of National Planning," *Annals of the American Academy of Political and Social Science* Vol. 162 (July 1932).

8. Friedrich Hayek, *The Fatal Conceit* (Chicago: University of Chicago Press, 1988); Don Lavoie, *National Economic Planning: What Is Left?* (Cambridge: Ballinger, 1985); Peter Boettke, *Why Perestroika Failed* (London: Routledge, 1992).

9. James P. Womack, Daniel T. Jones, and Daniel Roos, *The Machine That Changed the World* (New York: Rawson Associates, 1990).

10. Charles Koch also coined the term "market-based management" and is the first CEO we know of who has explicitly tried to adapt market principles to change his organization across the board. For more information, see Wayne Gable and Jerry Ellig, *Introduction to Market-Based Management* (Center for Market Processes, 1994) and Tyler Cowen and Jerry Ellig, "Market-Based Management at Koch Industries," Center for Market Processes Working Paper (1993).

11. See Chris Argyris, *Integrating the Individual and the Organization* (Transaction Publishers, 1990 [1964]); William Ouchi, *Theory Z* (Reading: Addison-Wesley, 1981); Tom Peters, *Liberation Management* (New York: Ballantine, 1992).

12. See Friedrich Hayek, *Individualism and Economic Order* (Chicago: University of Chicago Press, 1980).

13. Friedrich Hayek, *Law, Legislation, and Liberty, Vol. II: Rules and Order* (Chicago: University of Chicago Press, 1979).

14. Ricardo Semler, "Managing Without Managers," *Harvard Business Review* (Sept.–Oct. 1989), pp. 76–84.

15. For more information, See Jerry Ellig, "Internal Pricing for Corporate Services," Center for Market Processes Working Paper (Sept. 17, 1993).

16. Bill Nobles and Judy Redpath, "Market-Based Management: The Secret to Nucor's Success?," *Profiles in Market-Based Practices*, Center for Market Processes (forthcoming study).

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The Economic Safety Net (a parable)

by Jes Beard

Once upon a time, far, far away, people lived in a village on an island where life was difficult. But the people were good and worked hard and the village grew. The people called their island "Economy" and they were happy.

On one side of the island of Economy was a big lagoon. The lagoon had warm, crystal clear blue water and beautiful beaches, but the lagoon also was home to dangerous sharks. And the beach had quicksand that could swallow a person clean away, so fast they could not be pulled out before they vanished, never to be seen again. Because everyone on Economy knew of the sharks and the quicksand, almost no one went to the lagoon. They stayed away even though it was the most beautiful place on the island, where the sun was always bright and the birds gave their songs in wondrous and enchanting voices.

At first, life in the village of Economy was so hard almost no one ever had time to do anything but work, and no one thought about the lagoon. When they did think about the lagoon they always thought about how dangerous the sharks and quicksand were and stayed away. People saved and planted crops and made buildings where they could work better. Life became easier, but only a little.

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