THE ENTREPRENEURIAL SOCIETY

DAVID B. AUDRETSCH

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David B. Audretsch

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This book is dedicated to Christopher, James, and Alex.

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Preface

On November 9, 1989, the television program was abruptly interrupted. Inexplicably, East Germans were pouring unencumbered through the checkpoints into West Berlin, where I lived at that time. Joining the hoards of astonished on-lookers at the suddenly porous Berlin Wall, we could all sense this was one of history's great turning points. Not only did the fall of the Berlin Wall trigger the reunification of a divided Germany and the end of the Cold War, it fostered an expectation of an unprecedented peace dividend. Liberated from the financial, military, and emotional burden of the Cold War, America and her European allies looked forward to a new era of not just peace but also unprecedented prosperity.

It didn't work out that way. In Europe, growth dwindled and opportunities were few. A stagnant economy in Europe triggered a seemingly unstoppable increase in unemployment that began in the early 1990s. Meanwhile, the United States enjoyed vigorous economic growth generated by one of the strongest and most dynamic expansions of the entire post-war era. However, accompanying the 1990s expansion was an increasing and worrisome gap between the haves and the have nots. Unlike other economic expansions, not all boats were lifted by the rising tide of national prosperity.

Something had changed. That something was globalization. With the fall of the Berlin Wall, vast expanses of previously inaccessible parts of the world, principally Eastern and Central Europe but also China and other parts of Asia, were swept up into the family of economic trading partners. Watching the Berlin Wall crumble that cold, dark November evening, I was amongst the thousands of Berliners witnessing firsthand not just the end of the Cold War but also the roots of contemporary globalization. At that point, no one had heard that word, yet within just a few years it would become a buzzword. Workers, businesses, industries, regions, and entire countries were suddenly exposed to relentless economic competition from not just Eastern European countries like Hungary and Romania, but also the new Asian giants, China and India.

Globalization has already left an undeniable imprint on society. What once worked so well, providing a sure-fired prescription for success, prosperity, and security for previous generations, stopped working. It stopped working not just in the United States but throughout the developed world, leaving a generation wondering exactly what had happened to them. The whole pattern of work, careers, and the vehicle that had provided citizens their livelihoods—the stalwart corporations of the Cold War era—were no longer delivering.

My father graduated from college, fought in the Pacific during World War II, and returned to a job with IBM. He kept that job for some forty years. Essentially, he had one job and one employer his entire adult life. There was a sense that the jobs were there, provided by the country's great corporations. The lesson imprinted in a generation of economists by John Maynard Keynes was to ensure sufficient demand to induce the country's great firms to fill those jobs. The great Keynesian insight was that if public policy made sure the demand was there, everything else—firms, jobs, and standard of living—would fall automatically into place.

But it was not falling into place anymore. Anyone looking to the great industrial stalwarts, such as General Motors, or even IBM, for anything approaching the security of the lifetime employment that was so prevalent in my father's generation would be disappointed. As the younger generation will tell you, the formulas of my father's generation, let alone mine, don't work anymore. The world has changed.

Even as many were shaking their heads, bewildered at what would have seemed incomprehensible just a short few years earlier, some people, businesses, industries, and even entire regions were thriving in this new global environment. The common denominator for success in rising to the challenges afforded by globalization rather than falling as yet another victim of globalization is what this book is all about.

In identifying the entrepreneurial society as the positive and productive response in this new global era, I have chosen to explain it in a way that is understandable, interesting, and valuable not necessarily only to my colleagues at the university, but perhaps more important, to the broad span of people engaged in the myriad spectrum of activities comprising our modern contemporary world. Individuals who understand the basic forces shaping both their choices and the consequences of those choices are better equipped to make those choices wisely. Business leaders and policymakers who are painfully discovering that the frameworks and theories they learned in school may no longer provide the path to success in the global era will similarly make better choices with a clear understanding of what the entrepreneurial society is, why it emerged, and why it is likely to hold the key for a prosperous future in the global era.

The writing of this book has benefited from the assistance of a number of people. The Ewing Marion Kauffman Foundation provided generous support of the research and writing of this book. Betty Fiscus, Paul Jackson, and Diana Black at the Institute of Development Strategies at Indiana University provided steady and reliable help with numerous aspects with the manuscript. Similarly, Taylor Aldridge, Melanie Aldridge, Iris Beckmann, Norman Bedtke, Max Keilbach, Anja Klaukien, Mathias Langner, Becky Mai, Erik Monsen, Lydia Nobis, Ilka Ritter, Mark Sanders, Madeleine Schmidt, Kerstin Schueck, Stephan Schütze, Uta Seydenschwanz, and Jagannadha Tamvada at the Max Planck Institute of Economics in Germany provided expert assistance in compiling background material and assisting with the writing of this book. I would also like to thank Sara Norwood for her outstanding work with the graphics in the book, as well as Naomi Lederer and Cathy delos Santos for their assistance. A special thanks goes to Adam Lederer, my student who threw himself into assisting with the writing of this book. He not only provided significant amounts of material and ideas, but he also exhibited extraordinary patience and tenacity while working through the numerous and varied earlier drafts of this book. Without his help, this would have been a very different and lesser book.

Finally, I would like to express particular gratitude to several people at Oxford University Press. Catherine Rae has been very helpful at moving the project from inception, through the writing, and finally into production. I have known Terry Vaughn since first publishing a book with him in 1983 and have always been proud and grateful to work with him. When the idea for this book emerged during a telephone conversation in 2003, he advised, “Understanding how the world has changed and how to deal with it is too important to be restricted to just a few scholars at universities. Write it for someone waiting at a bus stop in Indiana, the way you are telling me on the phone.” So I did.

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The Times They Are A-Changin'

Every generation has a defining moment. Perhaps the moment that defined the baby boom generation's voice, direction, and identity occurred in *The Graduate*. A (startlingly) young Dustin Hoffman is seen celebrating his college graduation. When he confesses his indecision about the future to an experienced family friend, the answer, whispered in his ear, shaped the consciousness of an entire generation: "Plastics." It could have been steel, autos, or tires as well. The point was that, back in the mid-1960s, as it had for some two decades, the future for ambitious young men lay within a large manufacturing corporation.

This belief was prevalent throughout the developed world during the post–World War II era. Just as the best and the brightest wanted to work for Philips Electronics in the Netherlands, Siemens in Germany, or Ericsson in Sweden, those without the same educational advantage were assured of a comfortable middle-class life by accepting employment on the factory floor at General Motors in Detroit, US Steel in Pittsburgh, Volkswagen in Germany, and Renault in France. It did not matter whether you were educated or not. The large corporation was the key to the American Dream—ownership of a home in the suburbs, and a car to drive.

If you fast-forward forty years into the contemporary world, few people, if any, would say plastics. Nor would they say autos or steel either. Today's icons are rooted in a very different and diametrically opposed image.

This image was famously forged in a television advertisement by Apple Computer during Super Bowl XVIII in 1984. The ad depicted a large congregation of homogeneous, listless, expressionless men wearing identical suits and carrying identical briefcases. An authoritative figure speaks on a massive screen in front of them, an allusion to Orwell's "Big Brother" that, without any doubt, symbolized IBM. Suddenly, a slender figure with long, unkempt hair, wearing running shorts and shoes, broke through and hurled a hammer forward, shattering the image on the screen, introducing Apple's new Macintosh personal computer.

It was symbolic of a seismic shift. The established, large corporation lost its omnipotence as the engine of economic growth—instead, action shifted to unheard-of start-ups like Apple Computer, Microsoft, Ben and Jerry's, Dell Computer, and Starbucks. While they are now large companies, what was most amazing to the entire world is that these companies had only recently been started by people like Steve Jobs, Bill Gates, Ben and Jerry, and Michael Dell. This is what would be whispered in the ear of a contemporary "Graduate."

It took some time before people began to recognize that these small, entrepreneurial startups were anything more than an interesting oddity, reflecting lifestyle choices that seemed to be incompatible with the more conservative norms in large corporations. No one could have imagined, say, the creators of ice cream flavors like Cherry Garcia would be ideal corporate men. In fact, IBM wrote off Bill Gates because he lacked the credentials—a college degree—to work for IBM. Similarly, Steve Jobs never made it through Reed College, and his subsequent time in India with a spiritual leader did not seem to compensate for the lack of an MBA.

During the post–World War II era, the direction, energy, and pulse of society remained fixed on the large corporation. Individuals, particularly young people, viewed large corporations as the source of jobs and opportunities—white-collar jobs if you were lucky enough to have a college education, blue-collar jobs if you did not. The union-protected blue-collar jobs in the auto, steel, and tire industries were a ticket into the middle class—just as the paper pushers, albeit without dirty hands, held dependable white-collar jobs. The large corporation was the source of well-paying jobs and security. No wonder America believed Charlie "Engine" Wilson, chairman of General Motors, when he declared "What's good for General Motors is good for America."[1] Postwar Americans knew who buttered their bread—the large corporation.

Until recently, most of my students' parents held one job their entire lives. They spent the majority of their work lives with one company, doing more or less one thing. My students often report their parents' bewilderment when not only do their children not know exactly what they want to do, they certainly don't plan on doing it for one employer their whole life. Being a loyal employee used to be highly valued and rewarded. Not anymore. Now, it's important for young people to nurture their networks to ensure they always have an outside option. A previous generation considered work to be something you did for money, for material gain. Nobody went into plastics because they loved plastics. My sense of young people today is that while they want a comfortable, materially secure life, just like generations before them, they also want to feel passionate about what they are doing. They want to believe that what they are doing connects something inside themselves with the external world. Parents shake their heads and wonder why their offspring don't simply get a job. Why do they have to be so passionately involved with their work? Since when did work stop being something you did for money and become a means for self-fulfillment and self-development? To be involved in producing something you could touch and sell, like automobiles or refrigerators, had always been preferable to the "softer" services, yet today few young people want to be involved in the production of cars, steel, or almost any manufactured good for that matter. It is not surprising that to older generations the world has gone topsy-turvy. What was good and valuable only a few years earlier is now better avoided.

Something changed. And that something—the driving force of the economy—is the subject of this book. For my parents' generation, whom Tom Brokaw praised as the "greatest generation,"[2] the driving force of the economy were the large corporations. My father, like his entire generation, returned victorious from World War II, apprehensive about what lay ahead. After all, thanks to the war, an entire generation had been plucked from the worst economic disaster the United States had ever experienced, the Great Depression, during which as many as one in four Americans were unemployed.

How happy returning veterans must have felt to discover that the postwar American economy was entirely different. This economy had conquered the decade-long depression of the 1930s and come roaring back, because the nation had one thing that mattered most for an economy, at least at that time—factories, plants, and machines, or what the economists like to call physical capital. With education from the GI Bill and cash from their veteran benefits, these men and their new brides hungered for a house in the suburbs, a car to put in the driveway, and a collection of household goods to make their house a home. The demand was there, but, as a result of the nearly total destruction of not just German cities, but much of Europe, no other country had anything approaching the capacity needed to meet that demand.

America had spent the previous century struggling to learn how to make this large-scale type of production work efficiently. It took more than machines and factories; it took unions, schools, and government policies that provided an external environment that accommodated and facilitated the effectiveness of large corporations. It also took people who were able and willing to devote the better part of their days for most of their lives to running and maintaining those machines and factories. This was not much fun. If you were a blue-collar worker, you learned to numb your mind and devote yourself to life after work. If you were lucky enough to be educated for a white-collar job, you became what William H. Whyte penned into infamy, the "organization man."[3] Whether your collar was blue or white, one thing was the same: you were a cog in the machine of the large corporation, and it wasn't fun. Image after image from that period reinforces that life may have been wonderful but work was dull, tedious, and not to be discussed in front of women and children.[4] Baby boomers will never forget Fred Flintstone cheering "Yabba-Dabba Do." But did he ever shout this on the way to work? For poor Fred, work was drudgery, just as it was for members of the "greatest generation," who manned American corporations and factories, pouring out record numbers of automobiles and tons of steel. A more thoughtful critique of the emptiness of the workplace is portrayed by Gregory Peck in the film based on the best-selling novel from the 1950s *The Man in the Gray Flannel Suit*,[5] or in David Riesman's penetrating analysis of the alienation of working for the large corporation, *The Lonely Crowd*.[6] But the men and women returning victorious from war were thankful to have a good job that provided a middle-class life. If work was less than fun, it was certainly preferable to the war and the Great Depression before it. This was the American dream, at least the postwar 1950s and 1960s version.

William H. Whyte called the typical person who was required to run the factories and corporations of the postwar economy the "organization man." This economy was driven by the efficiencies and power of large corporations, like General Motors and US Steel. It required massive interventions, regulations, fine-tuning, and support from not just the government but from all facets of society, spanning a broad array of institutions, ranging from schools to, as Betty Friedan was quick to point out in *The Feminine Mystique*, marriage and the family.[7] It took what I will term *the managed economy* to provide the right institutions and policies to create a workforce and external conditions that could make an economy centered around the large corporation work the best.[8] Learning how to live with the beast of big business and how to get the most out of it was neither easy nor trivial, as a century of at times twisted and tortured history has shown us.[9] By the 1950s, the lessons had been learned, all of the institutions and policies were in place, and the Americans, who had saved the world from fascism and dictatorship, were well positioned to enjoy the fruits of their sacrifices. America's century-old investment in creating the managed economy was finally paying off.

However, it did not keep paying off. Maybe it couldn't. At first glance, it would seem that the culprit was the 1960s. The protests, the social movement, and the "cultural revolution" affronted and challenged everything that was sacred to the managed economy. The restraint and self-discipline inherent in that economy gave way to spontaneity and going with the flow. Conformity and strict adherence to the rules was replaced with "doing your own thing" and self-realization. Civility and deference were replaced by confrontation and challenge. Order and decorum gave way to chaos. As Bob Dylan sang in "The Times They Are A-Changing," perhaps the most penetrating song characterizing the great transition of the 1960s, "The first one now / Will later be last."[10]

I was a child at the zenith of the managed economy. I was a teenager as that economy began to fade, and a young adult as it started its great descent into a downward spiral. Was this eclipse and decline inevitable? The famous 1960s song by the Byrds "Turn! Turn! Turn!" quotes the Bible, "To everything there is a season" (Ecclesiastes 3:1). To middle-aged people in the 1960s, not just the managed economy but also civilization as they had known it must have appeared to be going into eclipse. An entire popular culture, that of the 1950s, was swallowed up and disappeared into the vortex of the chaos and whirl that was the 1960s.

But it was not just the 1960s alone that led to the demise of the managed economy. By the 1970s, something unanticipated and unexpected happened. The country lay paralyzed by an oil crisis, triggered by the quadrupling of the price of crude oil from $3 a barrel in 1973 to $12 a barrel. At the same time, what had been a barely noticeable trickle of manufactured imports turned into a flood of automobiles and steel pouring into America's ports and harbors, more often than not bearing the tags "Made in Germany" or "Made in Japan."

In an issue in 1987 devoted to the question "Can America Compete?" *Business Week* concluded that the options facing the United States were either "a surge in productivity—or a lasting decline."[11] To the American public the crisis was as difficult to recognize as it was painful. After all, in the first several decades following World War II,

> the U.S. was virtually unchallenged as industrial leader. Americans could make anything, and because their products were the best, they could sell whatever they made, both at home and abroad. But somewhere around 1973, the gravy train was derailed—and it has never really gotten back on track. U.S. producers met fierce competition from foreign industries that churned out high-quality goods made by low-wage workers.[12]

The managed economy's days were numbered, at least in the United States. By the 1970s, Europe and Japan had caught up. When it came to physical capital—plants, factories, and machinery—America was no longer the only kid on the block. Rather, thanks in part to its own generosity in helping restore the defeated Japan and Germany back to their feet through the Marshall Plan and other programs, the United States now faced serious international competition. The Japanese and German institutional and policy approach to their respective managed economies was proving to be superior to America's approach.[13] After all, when it came to manufactured goods, the Germans and Japanese knew what should be produced, how it should be produced, and who should produce it. When it came to having a trained, disciplined, and dedicated workforce, the Japanese and Germans simply could not be beat. The Japanese and Germans, along with other European countries, like Sweden, had developed an elaborate institutional structure and government policies that made their large companies even more efficient and competitive than their American counterparts.

This is not to suggest that the playing field was always level. Both the Japanese and Europeans deployed industrial policies to compete against and beat the Americans in industries like automobiles and steel.[14] America's competitors were finding more ways to benefit from their investments in plants and factories than America could ever dream. The United States had missed the boat.

Arrogance and complacency in the United States had kept Americans from realizing that the nation's assumed position of superiority in manufacturing, in having a competitive advantage in the production of goods involving large-scale assembly, was not a given. Other countries had developed an understanding of and commitment to what it would take to push their economies and societies ahead of, and perhaps even past, the mighty United States. After all, if they could beat Great Britain, what was to keep them from achieving in the peace of the postwar era what had eluded them though militarization?

The demolished countries had recovered, and America was worried. Just as the Soviet threat alarmed the country during the Cold War, Japan and Europe now threatened America's economic dominance. President Jimmy Carter's failed 1980 reelection bid was attributable to both the dismal employment prospects in American stalwart industries as well as the Iranian hostage situation. Just as he lacked effective solutions for the Iranian hostage crisis, President Carter was unable to offer any substantive solution to the American *competitiveness crisis*. The American managed economy lay in shambles. The United States had been fooled into thinking that, by being the first to develop a postwar managed economy, by virtue of its victory in World War II, its lead would always be there. That proved to be a delusion.

I moved to West Berlin in 1985. As the 1980s rolled on, bringing year after year of breathtaking increases in German prosperity, the Germans increasingly shook their heads wondering what had happened to their partner on the other side of the Atlantic. Even while Germany was growing rich and prosperous, America was bogged down in a myriad of plant closings, downsizings, and layoffs—particularly in the industrial heartland that became known as the Rust Belt. Germans, like their Nordic neighbors to the north, seemed to have it all. Not only were these countries growing wealthier with each passing year, but their social welfare states provided health, retirement, and education benefits as well as job security, provisions that were unimaginable in the United States. The managed economy no longer delivered for the United States, and had perhaps even become a burden. No wonder the Germans, Swedes, and Japanese shook their heads in sympathy for the once-mighty Americans. It seemed certain that economic domination, or at least leadership, was shifting from the United States to its competitors.

The evolution from the internationalization of markets—involving trade among the United States, Europe, and Japan in the postwar era—to what Thomas Friedman proclaimed as the start of contemporary globalization,[15] triggered by the fall of the Berlin Wall in 1989, spelled an even worse future for America. After all, if American companies had trouble competing against the high-wage countries like Germany and Japan, how could they hold their own against the new low-cost competition from central Europe, eastern Europe, and southeast Asia?

While America's future prospects looked even dimmer with the advent of globalization, Europe and Japan licked their chops, anticipating still greater prosperity around the bend. Germany, like most of western Europe and Japan, had developed sophisticated and subtle social systems to support its version of the capital-driven managed economy. This enabled it to enjoy what seemed to be unlimited success in international markets. Germany and Japan had quickly ascended as the leaders in exports, even though the United States was considerably larger. The new globalization held the promise of even greater prosperity for these nations. If the Japanese and Germans could beat the Americans in international markets, surely they could also beat the Czechs, Poles, Hungarians, Chinese, and Indians.

A host of scholars, pundits, and business leaders bemoaned the decline of the once proud and mighty economic power. Lester Thurow, dean of the prestigious Sloan School of Management at the Massachusetts Institute of Technology, lamented that the United States was "losing the economic race"[16] because "today it's very hard to find an industrial corporation in America that isn't in really serious trouble basically because of trade problems. . . . The systematic erosion of our competitiveness comes from having lower rates of growth of manufacturing productivity year after year, as compared with the rest of the world."[17] In one of the most widely discussed books of the time, *The Rise and Decline of Great Powers*, Paul Kennedy explained that economic decline was all but inevitable.[18] This pessimism ultimately led to the election of Ronald Reagan in 1980 and, twelve years later, Bill Clinton. The burning question emerging in the 1970s remained, more poignantly than ever, "how to get it back."

Regaining the lead was generally perceived as the way into the future. For the United States to do this, it needed to regain international competitiveness in the industries that mattered—especially the ones most devastated by Japanese and German international competition: automobiles and steel. This strategy suggested rethinking and revamping America's managed economy in order to win back ground that had been lost in these key industries. In 1989, an influential study called *Made in America* was directed by Michael L. Dertouzos, Richard K. Lester, and Robert M. Solow, the leaders of the prominent and prestigious Massachusetts Institute of Technology (MIT) Commission on Industrial Productivity, which consisted of a "dream team" of twenty-three top MIT scholars whose knowledge spanned a broad range of scholarly disciplines and backgrounds. The study argued that the way into the future was to restore productivity and international competitiveness.[19] For the United States to restore its international competitiveness, it had to regain primacy in manufacturing plants and equipment, that is, physical capital. In addition, America had to adapt its policies to target and promote its leading corporations, as had been done with formidable success in Japan and Germany. If you can't beat them, join them. Primacy in manufacturing would also secure American leadership in the world. It was time to restore the American managed economy. If this meant compromising and adjusting fundamental institutions and policies in the United States, like the antitrust laws, or introducing more heavy-handed industrial targeting to level the playing field in industries like steel, so be it. The United States had been blind-sided before—the sneak attack at Pearl Harbor, for example. Surely, if the nation could win that war, it could muster the will and resources to win this new war for manufacturing prowess.

Winning back economic supremacy is exactly what the United States did in the 1990s. By the middle of the decade, economic growth, productivity, and job creation were at record levels. Unemployment had nearly disappeared throughout much of the country. This was a new golden era for America. The stock market started climbing and would not stop until the end of the century. So did real estate prices. Meanwhile, Japan and Germany—in fact, virtually all European countries—were bogged down in economic stagnation and unemployment levels that ratcheted higher and higher throughout the decade.

So had America, in the end, won the battle for manufacturing? Had it adjusted its managed economy, perhaps developed a neo-managed economy to take back its manufacturing lead? Had it reversed the trend of industrial erosion and the hollowing out of its great corporations that had been taking place for the better part of two decades?

Not exactly. What had saved America, or at least what had saved its economy, was not the managed economy; rather, it was the demise of the managed economy and the emergence of something entirely different. The job and wealth machine that America had wondrously become in the 1990s was not, in fact, based on the great corporations and industries of the managed economy. Those industries continued to decline. Their eclipse was hardly retarded by the now-booming economy of the Clinton era.

What, in fact, saved America was the emergence of a broad host of new industries. These new firms and industries generated unprecedented wealth, income, and job creation for Americans. These industries ranged from the high-tech sectors—computers, software, information technology, and biotechnology—to services, especially financial, health, and educational services.

How did all this come about? Was it some enlightened plan of the Clinton administration? Hardly. The roots lie much deeper and also much earlier. It is true that the 1960s was a decade of excess, extremes, self-absorption, and decadence. But it was also a decade that broke down barriers. It was difficult to escape from succumbing to the social forces channeling people into the mold of the "organization man" in the 1950s, as William H. Whyte, and Sloan Wilson in *The Man in the Gray Flannel Suit*, suggested.[20] It would have been at least as difficult to become such a person by the end of the 1960s. Everything the 1950s represented, the 1960s seemed to be against. Whether you liked it, detested it, or viewed the 1960s as a mixed bag, one thing was for sure: the possibilities available at the end of the decade were much more