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ENTREPRENEURIALISM, The Engine that has helped the United States Regain World Leadership: an Example for Japanese Industry *

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I. Introduction

I have been an active practitioner of "the art of licensing" since 1959. Early on, I came to appreciate that Japanese business people were very skilled in this area. They approached licensing like nobody else in the world, but usually achieved their goals.

In my experience, there have been four distinct eras of Japanese licensing, each governed by different circumstances and priorities. Tracing them chronologically will help identify traditional policies that continue to serve the needs of Japan today, while highlighting those respected Japanese institutions that might usefully be changed or replaced.

II. Period One: Licensing In

The first of the four periods was already under way when I entered the field of licensing, and extended until around 1970. Japan's preoccupation at this stage was "licensing in," not "licensing out." At this time,

Japan's Ministry of International Trade and Industry ("MITI") dominated the licensing arena. Japan was still recovering from the effects of World War II and had limited foreign exchange resources. MITI [*508] established priorities for the development of Japan's economy and its industries, and was determined to help Japanese companies realize favorable licensing terms. Its weapon of choice for insuring favorable terms was to guarantee that sufficient foreign currency would be made available for MITI-approved agreements to meet the royalty obligations of the Japanese party.

During this time, I found the Japanese executives responsible for negotiating with Westerners to be extremely cautious in their dealings. Despite this extreme caution, the Japanese companies' eagerness to license was refreshingly free from the counterproductive "not invented here" ("NIH") syndrome that seemed to crop up so frequently in North America and Europe. Rather, the Japanese recognized that it would be cheaper and less risky to acquire, via licensing, the best technologies that were fully developed and available anywhere in the world. And this is exactly what Japan did - at bargain prices.

Before a Japanese company commenced negotiations, we Westerners were confident that our counterparts had done their homework. They knew the areas in which they needed to acquire technology, had researched all possible licensor candidates, and almost certainly had reached preliminary decisions about which processes or products were most appropriate for Japan's needs. In comparison, Western companies and their negotiators were usually much less prepared, and frequently did not know much about the history, core competencies, or even the level of integrity of the Japanese companies with whom they were dealing. The main interest of the Westerners was often to gain a foothold in the already rapidly recovering Japanese economy. American companies, in particular, remained focused on the domestic U.S. market, with global considerations taking a back seat in their strategic planning. In this first era, Japan and other Pacific Rim markets were considered "extras" and still something of a mystery to many. These were not circumstances in which Westerners could obtain truly favorable deals.

It is my recollection that the national interests of Japan, rather than individual competitive advantages of companies, were the overriding considerations at this time. The coordinating influences of MITI and the Ministry of Finance undoubtedly contributed to this mentality; high prestige enjoyed by these government agencies and the controlling Liberal Democratic Party made it a simple matter for them to enforce this attitude.

Previously, I alluded to the meticulous caution of Japanese negotiators. This carefulness manifested itself in several ways. For instance:

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It was rare to meet with a single Japanese person. Invariably, teams of Japanese business people would attend each meeting, and the composition of the teams changed frequently. Eventually, we Westerners learned that this Japanese strategy was counterproductive for us and also stretched out the negotiations, usually to our detriment. We therefore learned to insist that we meet with the same team throughout the negotiations.

We were frequently unsure who the truelead negotiator was on the Japanese side. This was sometimes unsettling to our people, until we realized that the Japanese were very single minded about their goals - the bottom line - and that the personality or input of individuals was insignificant in comparison to this discipline.

We were invariably impressed by the thoroughness with which our Japanese counterparts approached their responsibilities. Numerous, detailed questions were asked about all aspects of the design, manufacture and marketing of the products and related technologies being licensed. Vague answers were not tolerated, since the Japanese would not accept anything less than full disclosure. This required measures to protect trade secrets, which both sides learned to understand and accept.

The institution of ringhi was eventually explained to us. Under this practice, everyone in the acquiring company, from the highest to the lowest, was consulted about each important decision to be made. This enabled everyone to share in the glories of success, with no one being to blame in those rare instances when the results of a licensing agreementwere unsatisfactory from the Japanese point of view. While ringhi invariably delayed the signing of agreements, everything tended to proceed even more rapidly after consensus was achieved, because there was very high commitment on the Japanese side.

If, after several negotiating sessions, we succeeded in striking a bargain with our Japanese counterparts, we knew that there was one more obstacle to overcome. This was scrutiny of the deal by MITI, or some other organ of the Japanese government if some special industrial sector was involved. As noted above, approval by MITI meant that the Japanese government guaranteed that sufficient foreign exchange would be made available to pay accrued royalties, a guarantee no prudent Western businessman wanted to be without. Unfortunately, MITI approval frequently came at a price, that price being a "sweetening" of

[*510] the deal for the Japanese party, through a lowered royalty or some other favorable change in the terms of the negotiated agreement. Western companies almost always bowed to this pressure from MITI because they did not want to be excluded from the Japanese market.

One might ask why foreigners, including Americans, were willing to endure these unbalanced licensing conditions. Japanese licensees usually proved to be very good at providing high quality products for the home markets of their licensors, and these licensing agreements generated large royalties. Moreover, most Japanese partners in licenses and other forms of technology transfer demonstrated honor and reliability in meeting their responsibilities. Thus, a widespread practice developed whereby the cream of western technology was transferred to Japan under very reasonable terms.

Unbeknownst to most Westerners at the time, Japan was also actively engaged in learning and adopting other extremely valuable technology from America, technology that most American companies ignored or about which they were unaware. The prime example of Japanese knowledge acquisition was the adoption of the teachings of W. Edwards Demming and Joseph Juran, who pioneered the concepts of statistical quality control, just in time ("JIT") deliveries, zero defects and quality circles. Japanese industry, to its enormous credit, recognized early the brilliance of these concepts. By achieving excellent manufacturing efficiency and cost effectiveness, in combination with production of the highest quality, Japanese industry accomplished a revolutionary improvement of its international image. This "imported" American technology was pivotal to Japan's success.

III. Period Two: High-Quality Japanese Exports

The second era in this survey generally covers 1970 to 1985. By this time, Japan had begun to prosper in a serious way, and its products were being successfully exported to North America, Latin America and Europe. To the surprise of many, Japanese products were not only price- competitive, but they were also better designed and better built than their foreign counterparts. This was especially true of optics, solid state electronics, and miniaturization. One example of this superiority is that Japanese cameras such as Nikon, Minolta, Canon, Konika and Olympus replaced the traditional German leaders, such as Leica and Zeiss, as the most desirable cameras. Moreover, the Japanese companies continued to make innovations and improvements to their products that widened the gap between them and their Western competitors.

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In just a few years, Japanese consumer electronics, such as radios, stereo systems, color TVs, VCRs, quartz watches, photocopiers, FAX machines, and many other products won a market share of more than eighty percent, which they still enjoy today. After a slower start in the automotive field, Japanese companies, led by Toyota, Nissan and Honda, became worldwide competitors in virtually all types of vehicles. These automotive products were simply better, and less costly. Interestingly, however, the aesthetic styling of these Japanese cars was created in almost all cases by Americans working in design studios located in California. Japan, at this time, soundly defeated America in an automotive genre in which General Motors, Ford and Chrysler were inflexible to changing technologies and market realities. While this arrogance did not change overnight, the American talent for self-critique insured that these problems were forthrightly addressed. As a result, today, the design time, cost and quality of American vehicles are comparable to those of their Japanese competitors.

In this second era, Japan also excelled many other areas. Fuji Film successfully challenged KODAK. Kyocera, a small company that started in Kyoto, achieved world leadership in high technology ceramics. Fujitsu, Hitachi, NEC and Toshiba were acquiring significant market positions in the production of large computers and memory chips. Sharp became the world leader in flat screen technology.

Before World War II, Japan had a reputation for cheap, shoddy manufacturing, as well as unscrupulous copying. No more! Aside from the enormous quality improvements largely credited to Demming and Juran, Japanese products were regularly refined and improved by Japanese industry. Japanese companies began to file large numbers of patents around the world. The improvements generated by Japanese R&D enabled Japanese companies to gain and maintain market share in many industries. In certain instances, a new product was sufficiently novel to create a whole new market category, such as Sony's WALKMAN.

However, despite market share and MITI encouragement and support, Japan did not achieve global leadership in many disciplines at the frontiers of science. As numerous and as commercially profitable as the patented and unpatented innovations of Japanese industry were, very few of these innovations created the type of paradigm shift that inspires Nobel Prizes. Japan was not a pioneer in such fields as supercomputing, biotechnology and sophisticated software, and was removed from the invention and discovery of items like the transistor, the integrated circuit, the identification of DNA, RNA and the double helix in molecular biology, the heart-lung machine, the jet engine, and the first Macintosh computer, to name a few.

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During this second era, Japanese industry was sufficiently successful and rich for MITI to greatly relax its controls over licensing, and licensing controls were essentially eliminated. Japan surpassed Germany as the second largest economy in the world. Furthermore, Japanese business began expanding overseas with wholly owned manufacturing companies and sales outlets. Smaller Japanese companies, traditionally suppliers for these companies at home in Japan, also opened overseas facilities near their customers, creating veritable foreign "colonies" of Japanese companies that preferred to deal with one another rather than with local Western suppliers. Also, relatively few Japanese companies organized serious "licensing out" programs to unrelated third parties. These attitudes created resentment among Western competitors and would be counterproductive in the future.

Japan continued, however, to "license in" selected technology, and also began crosslicensing its technologies with Western partners. Joint ventures with foreign companies were increasingly formed for the Japanese home market, where the Japanese companies controlled local distribution. To a lesser extent, joint ventures were also formed abroad with foreign partners. Japan also embarked on programs to establish its interests elsewhere in Asia, particularly in China and the Pacific Rim.

Many examples of Japan's hard-earned success were evident at this time. Japan enjoyed a favorable balance of trade with virtually every advanced country in the world. The Japanese yen rose high in relation to the U.S. dollar and the currencies of many other foreign countries. Japanese tourists traveled in large numbers all over the world. Indeed, Japan was accepted as a nation of great power and rank. Japan's cultural institutions of lifetime employment with a single company, respect for seniority, intense and highly competitive education, and growing political stability with every successive Japanese Prime Minister being a member of the Liberal Democratic Party, were working superbly.

IV. Period Three: The Peak of Japanese Success

The third licensing era stretched from 1985 to 1992. This was the period of Japan's greatest post-war success. During this time frame:

Japan achieved world leadership in the design and consumer acceptability of its automotive products. This included luxury models of the LEXUS, ACURA and INFINITI lines.

[*513] 8008anese companies in several industries, especially consumer electronics, grew to full-multinational scope, with factories and distribution centers operating in all the major markets of the world.

Sony made the bold move of purchasing Columbia Pictures in Hollywood, thereby becoming a true multimedia giant. Matsushita mimicked this move with the acquisition of Universal Studios, which turned out to be a disappointment.

Nine of the ten largest banks in the world were Japanese. Citibank was the only Western bank in this group, size being calculated on the basis of assets claimed. Japan's powerful financial position was supported by the tradition of the Japanese people to save their money, the boom in Japan to create and own better housing, and the very high speculative prices achieved on the Tokyo Stock Exchange, the NIKKEI.

The internationalization of Japanese businesses was marked by the fact that virtually every overseas facility was tightly controlled and managed by Japanese nationals. Unlike most Western companies that conduct global business and recognize the advantages of giving local managers real power in their areas, Japanese companies indicated that they were only comfortable when surrounded by their own people.

Japanese power and ambition at this time even led to some high profile real estate acquisitions abroad. The purchase by Japanese interests of Rockefeller Center in New York and the Pebble Beach golf course in California are the two most famous examples, but there are others. Such acquisitions were resented by Americans, who happily reclaimed these properties when times changed.

Japan achieved extensive economic control over many of the economies of the Pacific rim, particularly because Japan began to shift many of its high-cost domestic manufacturing operations to offshore facilities, where labor costs were much lower.

To a large extent, the successes realized by many Japanese companies, and in turn the Japanese nation, were earned by hard work and adherence to several Japanese traditions, which were perceived to be advantageous. These traditions include:

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a well-educated workforce whose school experience had been highly competitive students who excelled in this environment became aggressive and highly competitive corporate executives;

the intense loyalty of executives and workers to their respective companies, which usually guaranteed lifetime employment;

a homogenous ethnic population, with few of the tensions frequently associated with vocal minorities holding strong dissenting views;

the ability to make long term corporate plans over many years, without constant pressure from a stock market that expects quarterly growth in sales and earnings insulation from this short-term pressure was considered an advantage to Japanese industry because it permitted companies to embark on new strategic initiatives without having to show immediate results;

a friendly government, which encouraged the interests of "Japan, Inc." as a high priority; this resulted in protection of Japanese industry at home from foreign competition, and the absence of vigorously enforced antitrust laws to stimulate domestic competition;

a talent for accepting, understanding and absorbing technical and cultural ideas from the West, ranging from sophisticated skills in semiconductors and petrochemicals to fast foods, golf, rock-and-roll and baseball.

There was one additional factor, essentially political in nature, which provided an advantage to Japan. Japan's geographic position opposite Communist China, and at the "back door" to the U.S.S.R., made it a vital interest of the United States and its allies that Japan be a solid member of the anticommunist coalition during the Cold War. At the same time, a condition of the peace treaty with Japan ending World War II prohibited Japan from maintaining a substantial military capability of its own. Japan's military protection was, instead, guaranteed by the United States at an annual cost of many billions of dollars. These subsidies, in return for adherence to a capitalist-style market economy and democratic political institutions, were of great benefit to Japan. The Japanese nation thus received an annual economic windfall from the United States, Japan's principal trading partner and business rival.

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V. Period Four: The Bubble Bursts

The combination of factors outlined above, all of which contributed to the momentum of the Japanese economy, were also the basis for the problems that have followed, starting in 1992, and which continue to exist in Japan today. During this fourth period, speculation took control of the NIKKEI, building a huge "bubble" that finally burst. The majority of stocks listed on the NIKKEI plunged to a small fraction of their former value. The Japanese banking system, largely as a result of questionable loans, overexpanded to the point where many banks are now insolvent and unable to provide the type of financial support that Japanese business requires for its growth and short-term cash needs.

The continuing weakness Japan's banking system is often reported to be at the heart of Japan's inability to emerge from its current economic recession. Ironically, the reality is that this condition exists side-by-side with a mountain of savings accumulated through the thrift of the Japanese people. These enormous personal savings are held outside the traditional streams of commerce because Japan's prodigious savers are distrustful of the their own banking system.

Although Americans, unfortunately, lack the Japanese habit of regular personal saving, tending instead to "invest" in consumer purchases, frequently using credit card debt to do so, the U.S. economy emerged from a serious economic recession in 1992 due to a variety of factors. Many of these remedies are available to Japan. Certain established Japanese institutions, however, may stand in theway of recovery. Because many of these institutions have contributed to Japan's past successes, they may be difficult to change, especially in the short term. Still, the alternatives should be explored.

VI. Entrepreneurialism: A Possible Solution for Japan

The theme of my analysis is "entrepreneurialism." Entrepreneurialism has been driving America's success since at least 1992, and is a path that might well be followed by Japan. In order to make this viewpoint meaningful, it is important to understand the definition of entrepreneurialism and the various circumstances in the United States that fuel and drive this concept.

A. Entrepreneurialism Defined

Entrepreneurialism encompasses a willingness to take risks, with the knowledge that various support mechanisms exist that make it

[*516] possible to realize success from bold, unorthodox ideas. Creative financing talent is a valuable part of this attitude.

B. Entrepreneurialism in the United States

Entrepreneurialism thrives in an environment which encourages and appreciates inventions, even radical ones. We, in America, have paid a great deal of attention to paradigm shifts, in which the basic assumptions and "truths" of a particular discipline are successfully challenged. The result of a paradigm shift is often a complete restructuring of industry and market.

In America, we are blessed with diversity. We have strong political institutions and flexible cultural standards that operate within them. We have had many waves of immigrants who contribute to change by challenging the status quo. A perfect example of this diversity is one of my firm's clients, who was born in Cuba when his family were refugees from Hitler. This man studied at Harvard, New York and Rockefeller Universities in the United States, and worked as a postdoctoral fellow at the Laboratory for Biological Sciences at Cambridge University in England. He has, to date, been associated with seven different Nobel Prize winners, and has been nominated for a Nobel Prize in his own right. He has many inventions to his credit including one, originally conceived in the mid-1980s, but on which the European and U.S. patents are only now issuing, which is the foundation for combinatorial chemistry, high- throughput screening, genome mapping and phage displays - the basic methodologies for all pharmaceutical andbiotechnology research throughout the world. My firm has had the responsibility of coordinating a worldwide licensing program for these patents.

But this talented client is merely one recent example of a newcomer making an important impact on American scientific research. The rosters of the leading industrial and university research laboratories in the United States, as well as the organizational charts of thousands of start-up companies - clustered near research centers such as Silicon Valley in northern California, Route 128 near Boston, Research Triangle in North Carolina and the San Diego basin in southern California - read like the United Nations. Native-born Americans (whose own American ancestry may only go back one or two generations) are working in close collaboration with people whose ethnic roots are from all parts of Europe, including Russia, the Arab countries, India, Latin America, Canada (which is itself a "melting pot" of nationalities), China, Korea, southeast Asia and, of course, Japan. These brilliant men and women are independent thinkers who have often achieved their present positions by

[*517] unorthodox means. Seniority is much less important to recognition of status than are creativity and productivity.

C. The Research Environment in Japan

The type of environment described above is very different from my understanding of the traditional research establishment in Japan, which may be described as having the following characteristics:

almost complete staffing by ethnic Japanese people who are products of the rigorous but authoritarian Japanese education system where conformity and acceptance are apparently more important than outspoken dissent and which produces highly competent though rarely original scientists and engineers;

a lower percentage of qualified women participating in senior positions;

long-range planning and budgeting of research projects;

the importance of seniority to the achievement of important managerial positions;

high predictability, frequently leading to limited flexibility and an inability to change course if unexpected results are obtained;

general stability, because most of the supervisors and their staffs enjoy guaranteed lifetime employment - these people are usually salaried, but not compensated by incentives in the form of large success bonuses or stock options;

formality in dress, impersonal operating interrelationships among personnel and even in planning function.

Compare this with the United States, where dress in offices and laboratories is now almost universally "corporate casual." People are rarely addressed by their titles (although Ph.D.s and other doctorates are common); they usually refer to one another by first names.

Note that the casual atmosphere is not a reflection of sloppiness or poor control; in superbly managed companies such as Microsoft, Intel and Merck, or university labs such

as Stanford and M.I.T., motivation is

[*518] achieved by large monetary rewards for important achievements; meritocracies do not require formality to be disciplined.

Of course, nothing in this world is black and white. The Japanese system has several valuable qualities. For instance:

The discipline and extreme courtesy for which Japan is noted grow from a need to function rationally in a densely populated island nation; nonconformity, to the degree it is practiced in the United States, could be disruptive and counterproductive in the Japanese setting.

The Japanese educational system enables Japanese scientists, engineers and industrial designers to thoroughly understand foreign scientific breakthroughs, rapidly adapt them to the needs of Japan, and regularly make incremental improvements.

The same attentiveness and ability to learn made it possible for Japan to appreciate and absorb the concepts and procedures of Demming and Juran at a time when such important wisdom was overlooked in the United States and Europe; should the current economic crisis in Japan require new and additional national learning exercises to cope with changed conditions, I am confident that Japan will meet the challenge.

The tradition of lifetime employment inspires intense loyalty from Japanese executives and workers to their companies, which was frequently reflected in superior performance. n1

The overwhelming political control of the Liberal Democratic Party, and the elite government ministries, especially MITI and the Ministry of Finance, have greatly weakened in the past six years; many Westerners view these to be positive developments, because they believe that a weakening of these government agencies will likely contribute to greater opportunity for smaller Japanese businesses.

The Japanese system, and in particular the institution of lifetime employment would benefit from close scrutiny, in light of the following:

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A similar policy of lifetime employment was pursued on a worldwide scale by IBM until the early 1990s, when economic circumstances forced the company to abandon this tradition. More than 100,000 employees have left IBM, many under early retirement programs, without being replaced. Corporate downsizing, accompanied by "re-engineering," another strategy suggested by American academics, has helped make American companies more efficient and competitive.

Despite the fact that there has been widespread downsizing of American business steps that have removed inefficient operations and increased the competitiveness of many companies - there has actually been a gain in total employment in the United States.

The decrease in the employment rolls of larger companies has been more than compensated for by self-employment, the establishment of start-ups and increases in employment by companies with fewer than 1,500 employees; this is where the real growth is occurring in the United States, and is a phenomenon that could become an object lesson for Japan.

As I perceive the current circumstances, there is nothing fundamentally wrong with most of Japanese industry. Its products are generally excellent, and the nation continues to benefit from one of the hardest working, most skilled workforces in the world. The average age of Japan's population is among the highest in the world, but increased automation and other efficiencies can help a smaller work force maintain industrial output levels.

D. The Economic Environment of Japan

The Japanese traditions of thriftiness and saving are much more an asset than a liability, even though the Japanese drive to save has created a huge cash hoard that is largely unavailable to be used as a tool for helping Japan recover from its current recession. Also, the increasingly large Japanese government spending packages, which combine investments in public works of questionable priority with tax reductions, do not appear likely to cure the climate of lingering recession in Japan. Nevertheless, such spending packages indicate an increased willingness by the government to try to restore the economy.

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The core problem, as seen by Western economists and businessmen around the world, clearly resides in the terrible condition of the Japanese banking system. America faced this same problem with its failed savings and loan ("S&L") banking system in the early 1990s. The S&Ls, whose financial structures were principally based upon residential and commercial real estate mortgages, had been loosely administered by the U.S. government. They expanded too rapidly on ill-advised loans, so that many failed or were on the brink of failure in 1989 and 1990. To date, the U.S. government, based on legislation authorized by Congress, has spent over \$ 165 billion (U.S.) to repay depositors in these institutions. U.S. government officials currently anticipate that there will be further payments required, following pending litigation, of an additional \$ 50 billion (U.S.). But by confronting this situation directly, the U.S. government mitigated a serious problem, and prevented it from becoming a cancer on the U.S. economy.

It is estimated that because of lax administration by the Japanese, as well as overly friendly financial arrangements made between banks and companies of the same keiretsu, n2 potential banking losses resulting from institutions in Japan could be several times as large as those in the U.S. - perhaps as much as the equivalent of \$ 600 billion (U.S.).

VII. Directions for the Future

Obviously, the failure of the Japanese banking system is a sobering problem, but one that must be faced. Despite dark times for its financial institutions, Japan remains an enormously wealthy nation with huge cash reserves, a favorable balance of payments with virtually every industrialized nation in the world, and a large portfolio of valuable intellectual property and other assets. In my opinion, if these assets are employed more entrepreneurially than they have been in the past, Japan should be able to benefit from America's experiences and return to profitability and growth in the near future. The two key areas for entrepreneurialism are 1) financial institutions and 2) strategic alliances. These areas are, of course, related, but will be discussed separately.

A. Financial Institutions

Japan's finance sector should be increasingly open to qualified foreign investment bankers so that Japanese investors and companies can [*521] benefit from the complete range of creative financial tools available to large and small American companies in the United States. Major American financial houses and more specialized "boutique" firms should be able to operate fully in Japan, both independently and also in strategic partnerships with appropriate Japanese counterparts. Japan should also adopt a powerful regulatory legal framework, similar to that administered by the Securities and Exchange Commission and the Federal Deposit Insurance Corporation in the United States, to prevent the types of abuses that created the now-burst NIKKEI "bubble," as well as the precarious banking system that still exists.

Just as Japan absorbed the teachings of Demming and Juran in the 1950s, so too does the Japanese financial industry need to learn intensively about the modern products of Wall Street. Creative financing strategies spawned America's vigorous venture capital sector, which provides seed funding to thousands of entrepreneurial start-ups, many of which have grown into large, successful companies.

Furthermore, foreign financial institutions can also provide a variety of other valuable services to Japanese industry. Through the securitization of existing or projected cash flows from technology licenses, joint ventures and strategic partnerships, new high-yield, yet relatively safe, investment opportunities can be created for Japanese investors, which would bypass the overextended banks. Financial institutions can also broker transnational mergers and acquisitions whereby Japanese companies may more easily acquire equity in foreign companies, and vice versa.

By loosening its tight control over its financial markets, and by permitting full participation therein by foreign investment establishments, Japan would not be doing anything radical; it would merely be conforming to world trends.

For example, in March, 1999, Renault spent \$ 5.44 billion for a thirty-seven percent interest in Nissan and a twenty-three percent interest in Nissan's truck- making affiliate, Nissan Diesel Motor Company, which entitled Renault to three seats on Nissan's board. n3 Prior to this transaction, Nissan had lost money during all but one of the last six years. n4 While this transaction transferred considerable control of a large Japanese company to a powerful foreign-based multinational corporation, Nissan now has access to fresh financing, which strengthens its manufacturing and marketing position around the world. Japan, or at least Nissan, seems to have paid close attention Volkswagen's acquisition of the British

[*522] icon, Rolls Royce, and Chrysler's merger with Daimler Benz, both in 1998.

These suggested changes in Japan's financial world are not simple solutions, but are remedies long overdue. They could fuel a genuine revival of the NIKKEI, provide productive outlets for Japan's "savings mountain," and open up opportunities for Japanese entrepreneurs to build important new enterprises. Sony, Honda and Kyocera were startups that prospered and grew under the old Japanese protective system. If Japan could follow an entrepreneurial approach based on the American model, many more such Japanese success stories could surely be written. They would probably involve the most important contemporary technologies, enabling Japan to maintain its industrial leadership.

It has been observed that Japanese scientific and industrial inventiveness has, to date, largely been incremental, rather than brilliantly original. This generalized national characteristic is attributable to several factors: 1) the Japanese reverence for order, hierarchy and seniority, 2) Japan's highly competitive but authoritarian educational system which appears to reward excellence in rote learning rather than creative dissent, 3) the homogeneity of the Japanese population and 4) the government- controlled insulation of Japanese industry from foreign competition in the home market. These Japanese institutions and realities cannot be expected to disappear rapid ly, especially since they have successfully served the interests of Japan in the past. It has been observed, however, that moves away from these classic Japanese models are already being made by Japan's younger generation. This is a healthy trend.

B. Strategic Alliances

Japan cannot, however, calmly await the evolutionary decline of traditional institutions. It can, and must, compensate for these culturally imposed limitations on creativity. A partial solution to this disadvantage is for Japanese companies to continue to search for "licensing in" opportunities involving technologies that can help future growth and profitability. Better yet, Japanese companies should actively seek to develop strategic partnering to a high degree. This form of collaboration can enable Japanese scientists to be active participants in advanced research that occurs in environments which reward creativity with bonuses and stock options, in addition to peer approval.

Another advantage to investing time and effort in international strategic partnerships is that they provide a vehicle for Japanese executives, scientists and engineers to work closely with people from widely different national and cultural backgrounds. Ideally, a strategic [*523] partnership for a Japanese company would allow it to blend Japanese traditions with current Western business practices in ways that serve the needs of all parties most effectively. Such a partnership can only be successful if the partners clearly understand their objectives and are able to negotiate mutually acceptable accommodations, both at the outset of the venture and on a continuing basis.

To better illustrate the benefits of a strategic alliance, consider a Japanese semiconductor company that is an efficient producer of D-RAMs. It has been successful in the past, but now recognizes its inability to match the latest innovations of Intel or Advanced Micro Devices in developing state-of-the-art central processing unit ("CPU") integrated circuits, products that command much higher margins than memory chips, which are now commodities. The Japanese company then identifies, either directly or with the aid of a consultant, a small, entrepreneurial chipmaker in Silicon Valley that has some creative CPU design concepts, but needs financing and lacks marketing capability in Asia, Europe and Latin America. A logical partnering scenario between these two companies could include:

a direct cash investment by the Japanese company in the American company for a minority equity position that would include at least one seat on the board of directors and access to the Americans' laboratories and design strategies;

a research budget for the American company funded by the Japanese, who would have the right to monitor progress, and to place some of its most talented engineers in the California lab;

an understanding that the Japanese could perform some specifically described complementary research in Japan, especially to establish efficient and cost-effective large-scale production facilities for the envisioned product line;

regular meetings between the partners to exchange information on technical, marketing and management issues;

a pre-negotiated exclusive license for the Japanese investor to manufacture and sell the ultimate products in Japan and other defined territories, plus the right to be the manufacturing source of such products for the United States and the rest of the world, provided its quality and costs are competitive.

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The terms and general format outlined above lend themselves to many special deals that can be customized to the particular markets and needs of the parties. It should be especially noted that:

This kind of strategic alliance provides the Japanese with first-hand, immediate access to state-of-the-art technology, plus the informal and entrepreneurial research atmosphere that might be adapted at home and harmonized with the traditions of the Japanese company.

The Japanese company might utilize the services of Western financial sources in developing a creative way to arrange financing.

A door may have been opened for an eventual acquisition of the American partner, or at least an ongoing relationship with this creative source; the initial research input might also provide sufficient momentum for the Japanese company itself to become a serious factor in the design and production of CPUs and other proprietary integrated circuits.

The Japanese will have established a window through which to observe American creativity and management styles, and would thus be in a position to use this information to streamline their own traditional operations.

VIII. Conclusions

Past Japanese successes and institutions, without changes, do not provide an effective means to help Japan and its industries emerge from the current recession. However, the ingredients needed to accomplish Japan's recovery and continued success are certainly present. These factors include:

the discipline, skills and high energy of the Japanese people, together with their extraordinary ability to learn useful lessons from abroad, as exemplified by the westernization of Japan during the Meiji restoration, the democratization process following World War II, and the widespread application of the teachings of Demming and Juran;

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recognition of the insufficiency of laws governing the operation of banks and stock exchanges - Japanese industry is capable of competing successfully against domestic and foreign rivals, but the absence of realistic antitrust laws to promote healthy competition is a roadblock which could, however, be alleviated by introducing and adapting existing American and European legislation and jurisprudence to Japan;

increasing cultural modernization - certain respected Japanese institutions that have served Japan well in the past should be reexamined to see whether they should be changed to meet the challenges of the modern world. These include the educational system, the favoritism of keiretsus, and the scarceness of financial supports for start-up companies. Attention should also be given to the need for corporate downsizing, the tradition of lifetime employment with the same employer, over- reliance on seniority for promotions and the desirability of increasing opportunities for women to achieve senior positions. Old practices are usually slow to change but increased awareness of the outside world and its practical mentality should help fuel the engines of change for Japan.

In the shorter run, an aggressive policy of forming solid strategic partnerships with creative foreign companies can accelerate change and help reinvigorate many Japanese companies; these relationships can provide exposures to new ideas and methods, and can also provide vehicles for Japanese creativity.

New ideas, new technologies and new opportunities exist, perhaps to a greater degree today than ever before. In the past fifteen years, America was sufficiently self-critical, flexible and entrepreneurial to adjust to the needs of a rapidly changing world. These adjustments have spurred American industry to regain and consolidate world leadership in many areas, particularly advanced technology.

Current American successes can provide many useful models to help Japan emerge from its deepest recession of the past fifty years and to recapture its former word- class standing. The door is open, and the precedents exist. It is now up to Japan to recognize and to seize the available opportunities.

n1 The environment which led to the policy of lifetime employment has changed, and Japan has begun to appreciate the shift in the environment of labor. These changes point up the growing importance of entrepreneurialism.

n2 Families of companies under common control, e.g., the Mitsui, Mitsubishi and Sumitomo Groups.

n3 Renault, Nissan Seal Their \$ 5.44 Billion Deal, New York Times, Mar. 29, 1999, at A-19.

n4 Id.