

Sumitomo Chemical's Competitive Strategy
in a Global Economy

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In the following presentation, I would like to discuss: 1) the present state of the Japanese economy; 2) important factors of change in the business environment; and 3) Sumitomo Chemical's business strategy for global operations.

I. The Present State of the Japanese Economy

Japan has been suffering, not only from the pains of structural changes in mature industries, but also from the growing pains of new industries and the readjustment from one economic period to another. With the acceleration of globalization and the commencement of the information technology (IT) revolution, the "Japanese system" of mass production of standardized products can no longer perform with the same comparative advantages as before. At the same time, new industries, which will drive our future economic growth, are not yet fully developed.

The fall of the Berlin Wall in October 1990 symbolized the victory of democracy over communism. At the same time, the geopolitical condition of the Cold War, during which Japan demonstrated its economic strength in world markets, drastically changed. A number

of factors extremely favorable to Japan have either disappeared or significantly changed.

Herein lies the essential challenge which Japanese businesses and industries must meet. The traditional industrial system with its unique features such as indirect financing, bank credits based on landmortgages, crossshareholding and the lifetime employment system, worked extremely well for nearly four decades till the collapse of the U.S.S.R. in 1991. However, since competition became more intensive as a result of the attempted shift by many communist countries to a market-oriented economy, many of these features are no longer advantages. They have become burdensome and threaten the viability of some Japanese companies. This is especially true after Japan's economic growth rate started tapering off. This was further completed when the yen was highly appreciated vis-à-vis the U.S. dollar and other currencies in the 1980's.

In addition, since the bursting of the "economic bubble" in 1990, the Japanese economy has been suffering from serious problems such as a banking sector that is overburdened with an enormous amount of non-performing loans. Also, consumer consumption which accounts for about 60 percent of Japan's GDP has remained stagnant. This is clearly the fact that consumers lost confidence in their economic future.

As the result, the Japanese economy recorded a negative growth for fiscal 1997 and 1998. The Japanese government aggressively implemented a series of Keynesian-type fiscal stimulus packages. These programs started to take effect. It appeared that Japan had finally emerged from its long recession with the growth rate in real terms for fiscal 1999 and 2000 being plus 1.9% and 1.7% respectively. However, the growth rate for fiscal 2001 is estimated to fall to minus 1.0%.

The Japanese economy has clearly been under deflationary pressures. The economic recession in the United States adversely affected Japan. After the horrendous terrorist attacks on September 11, the outlook of the American economy seems to highly depend upon how soon consumption which occupied about 70% of the GDP (10 trillion U.S. dollars) will be recovered.

The critical issue now is whether Japan can implement structural reforms. I believe that the Japanese people should not be excessively pessimistic about the future of their country's economy. The Japanese, by and large, remain highly industrious. The Japanese had shown a high degree of flexibility in adjusting to changes in the economic and business environment at the critical times in the past. For example, they weathered the sharp increases of energy cost caused by the two oil crises of the 1970's.

Monetary assets accumulated in the private sector are estimated to amount to 12 trillion U.S. dollars, making Japan a major lender in the international financial community. With its GDP at more than 4 trillion dollars, Japan is still one of the largest economies in the world.

The imperative of structural reforms requires that strong political leadership and a commitment to putting Japan's house in order. This will require overhauling the political, economic and administrative systems. Prime Minister Junichiro Koizumi who took office in April 2001 is very popular among the Japanese people. Unlike his nine predecessors who were appointed Prime Minister over the past twelve years, he has been diligently trying to implement structural reforms.

Prime Minister Koizumi is quoted as saying, "When it comes to structural reform, there are no sacred cows!" His commitment to small government, deregulation, privatization of public-sector

entities and the development of individual creativity has been receiving strong support from the Japanese public.

The Japanese tend to think that their social systems cannot be changed without unanimous consent. Therefore, the speed of change may not be as rapid as expected. Reform and deregulation in the administrative system would cause friction with those who want to maintain the status quo in order to protect their vested interests. For bureaucrats, giving approval has been the very source of their power, and for many bureaucrats, deregulation means reduced power for them and their organizations. For the private industries which are subsidized by the government, deregulation can mean the intensification of competition. Indeed, too many vested interests - ideological, political and financial-stand in the way.

Needless to say, this is not the case prevailing only in Japan; it is rather a universal phenomenon observed both at present and in the past. The well-known 16th-century political scientist, Niccolò Machiavelli wrote in his "The Prince" (first published in 1532), "It should be realized that taking the initiative in introducing a new order of things is very difficult and dangerous, and unlikely to succeed. The reason is that all those who profit from the old order will be opposed to the innovator, whereas all those who might benefit from the new order are, at best, tepid supporters of him. This lukewarmness arises partly from fear of their adversaries, who have the laws on their side, partly from the skeptical temper of men, who do not really believe in new things unless they have been seen to work well. The result is that whenever those who are opposed to change have the chance to attack the innovator, they do it with much vigor, whereas his supporters act only half-heartedly; so that the innovator and his supporters find themselves in great dangers."¹⁾

It is clear that human beings act only when they are convinced. In this sense, Mr. Koizumi's persuasiveness will prove extremely

important to meet the enormous challenges that Japan must face. Some critics say are equivalent to those at the time of the Meiji Restoration in 1868 and immediately after the Second World War which ended in 1945. Japan needs vision for the direction in which we should be moving. Business is ahead of government in recognizing this. Business leaders have been asking Prime Minister Koizumi to expedite the development and implementation of a comprehensive economic policy program, covering a broad range of issues related to the social security system, regional finance schemes and the tax system. They have also been urging the government to pursue actively all remaining deregulation and other systemic reforms with a view toward stimulating private sector initiative. One of the recent accomplishments in this area is a decision by the government of Japan to introduce a consolidated taxation system in April 2002.

Note 1) Niccolò Machiavelli "The Prince" Edited by Q. Skinner & R. Price, Cambridge University Press (1988)

II. Important Factors of Change in the Business Environment

Corporate activities are influenced by the economic environment and vice versa. Japanese companies have been coping with above outlined challenges arising from significant changes in the economic environment which took place over the past decade.

By way of example, I would like to draw your attention to five specific factors of change:

- 1) The globalization of markets and intensification of competition;
- 2) Technical innovations particularly in numerous fields including IT, biotechnology, new material science and nanotechnology;
- 3) Changes in corporate governance philosophy with a stronger emphasis on "shareholder value";

- 4) Higher customer expectations reflecting changes in demographics and values; and
- 5) Increasing public demand for better environmental performance and greater focus on the ethical dimensions of business decisions.

Let me discuss in some detail:

- 1) The globalization of markets and intensification of competition.
Developing countries in Asia and Eastern Europe which shifted to a market-oriented economy, made entry into the global market with their low cost products. Competition became extremely keen and Japan has been under pressure to respond to these radical geopolitical changes.

Japan's manufacturing industries, particularly labor-intensive industries, suffer from the loss of comparative cost advantage. For example, according to a comparative survey conducted by Sanwa Bank's branch office in Singapore, the medium wage of labor (assuming the wage in Japan is 100) is: 6.05 in Shanghai, 3.1 in Shenzhen, China; 4.5 in Thailand; 10.4 in Malaysia; 3.7 in Indonesia; 5.4 in the Philippines; 2.9 in Vietnam; and 4.5 in Delhi, India.

Thus, in order to remain competitive in the global market, companies must trim weak and uncompetitive operations for cost reductions. They must also refocus and develop a more effective allocation of resources and wiser strategy of investment in new lines of business. The "hollowing-out" of industries as a result of the shift of Japanese manufacturing operations to those low cost countries in Southeast and East Asian countries is a serious issue for Japanese business and industry.

I would like to point out that the traditional "life-time employment system" an essential strength of the Japanese

management system. It worked very well during the period of high economic growth. However, it has become rather a burden on Japanese companies. Innovative factory automation systems such as numerical control mechanisms, the use of e-mail and the Internet have made traditional skills less valuable and in some cases redundant or unnecessary. In fact, some of them have become obstacles to survival and growth.

Thus, the traditional employment system in the private sector is undergoing change. Increasing job mobility has become essential to the transfer of human resources to more productive employment. Western-style assessment procedures have been creeping into big Japanese corporations. Many Japanese companies are redefining the concept of lifetime employment. Some companies have already introduced the Hay System which is a performance-oriented compensation program extensively adopted by American companies and "voluntary" early retirement for their employees. Most companies are in the process of reducing the size of its headquarters staff and decentralize decision-making through reorganization.

Many workers now feel unsure about their jobs. Older employees find the corporate culture to be less cohesive, and their identification with the company is weakening. Japanese management must develop new programs and policies that will bring about a strong feeling of solidarity between management and employees.

On the other hand, younger employees seem more prepared than their predecessors to take risks and pursue other career opportunities as they feel necessary. They do not mind foregoing the security of long-term employment for the opportunity of personal career growth. Traditional patience with the seniority-based wage and promotion systems is gradually

disappearing. In order to enable workers to develop new skills, it has become extremely important for Japanese companies to provide their workers with various training programs.

- 2) Technical innovation, particularly in numerous fields including IT, biotechnology, new material science and nanotechnology. The new technologies are not only changing the structure of industry but also creating the new foundation of the knowledge-based economy. Like other nations, Japan is working hard to capitalize on technological innovations and putting in place the laws and regulations suited to the new technological paradigm. International harmonization of regulations and standards should be pursued, but we must be careful that we do not develop excess regulations that stifle the creativity, growth and usefulness of this "new frontier."
- 3) Changes in corporate governance philosophy with a stronger emphasis on "shareholder value". Under the strong influence of institutional investors, corporate management strongly focuses on raising "shareholder value". This has been under way for decades in the United States and Europe. It is now rapidly gaining momentum in Japan. Japanese companies have traditionally put high priority on "stakeholders" -- e.g., employees, customers, shareholders and the community -- rather than "shareholders." It is essential for Japanese corporate management to strike a balance between "shareholder value" and "stakeholder value".

In a seminar on corporate governance held at the University of Pennsylvania several years ago, an interesting result of a comparative analysis on corporate governance, conducted by the U.S.-Japan Management Studies Center in Tokyo, was presented. In response to the question "which is more important, job security or dividends?," 97% of the Japanese respondents replied that

"job security is more important," while nearly 90% of the American and British respondents felt "dividends are more important." About 60% of French and Germany firms replied that job security is more important.

This basic difference in corporate governance practices is also reflected in responses to the question: "Whose company is it?" To this question, 97% of Japanese managers replied, "It's for the stakeholders and less than 3% of the Japanese replied "It's for shareholders (investors). On the other hand, more than 70% of the American and U.K. respondents replied that "the company is for the shareholders." Less than 30% of American and U.K. companies felt that "the company is for stakeholders," while approximately 80% of French and German companies replied that the company exists for the interest of all stakeholders. The similarity between the United States and the United Kingdom is striking. France and Germany are somewhat closer to the Japanese.

- 4) Higher customer expectations reflecting changes in demographics and values. The aging of the population and the emergence of new values are also important factors bringing changes to Japan. The low rate of population growth and the rapid aging of the population in Japan, though not uncommon in industrialized countries, are striking developments.

According to the Japan's National Population Institute, the population will peak in the year 2007 and start declining thereafter. The percentage of people aged 65 or older to the total population is presently around 17%. It is estimated that it will exceed 27% in 2020. Confronted by this situation, Japan will have to dramatically change its social security system.

5) Increasing public demand for better environmental performance and greater focus on the ethical dimensions of business decisions.

The Public Broadcasting Station in the United States broadcasted Bill Moyers' documentary on corporate handling of environmental issues titled "Trade Secrets" in March 2001. The lesson that we must learn is that there is very strong demand for higher environmental performance. Management of chemical companies has duly recognized that they should pay more attention to proper handling of environmental issues. Japanese chemical companies, like their counterparts in other industrialized countries in the world, have been working hard at Responsible Care and sustainable economic development.

The issue of the ethical dimensions of business decisions has also been drawing greater attention of the general public. Indeed, the recently disclosed actions by some top executives of Enron and Arthur Andersen have raised a serious question about the soundness of corporate governance in America. Those corporate executives are alleged to have taken a large sum of money for their personal gain, while denying their employees the right to sell their stock. This incident gave the world an impression that even the American system which has been believed to be most transparent is not complete and needs constant care and improvement.

III. Sumitomo Chemical's Business Strategy for Global Operations

As Peter Drucker once said, "cross-border alliance" has become the strongest integrating force of the business world. The changing business environment is forcing companies to select fields that best fit in their current corporate strategy and concentrate resources in such fields.

Thus, the word in current Japanese business strategy is "globalization." Indeed, the corporate strategy of going global is no longer a choice but a survival technique. It is a process by which they make use of managerial resources such as capital, technology, human resources, and information beyond national boundaries to respond to dynamic structural changes in domestic and international economic conditions.

In the traditional Japanese corporate scene, mergers and acquisitions (M&A) had not been common. However, in recent years, the situation has significantly changed in recent years. In the chemical industry, for example, Mitsubishi Petrochemical Co., Ltd. merged with Mitsubishi Kasei Corporation in October 1994 to become a new business entity, Mitsubishi Chemical Corporation. In 1997, Mitsui Toatsu Chemical Inc. and Mitsui Petrochemical Industries were merged into Mitsui Chemicals. In November 2000, Sumitomo Chemical announced its decision to merge with Mitsui Chemicals by the year 2003. These mergers of the chemical companies represented an important step in the imminent restructuring of Japan's chemical industry. Key strategies are placing high priority on capital utilization, cash flow, and selection of core businesses and concentration of resources.

Sumitomo Chemical's new 2001-2003 Corporate Business Plan has these fiscal years 2001-2003. It has the following three distinct elements in the corporate vision statement. They are as follows:

First, Effective use of our expertise in chemistry and life sciences to develop and commercialize innovative technologies and new generations of products. One of the company's distinct advantages lies in its ability to capitalize on the synergistic effects of various technologies and expertise that the company has accumulated and refined through our operation of five different business sectors,

i.e., Fine Chemicals, Petrochemicals, Agricultural Chemicals, Basic Chemicals, IT-related Materials and Pharmaceuticals Sectors.

Sumitomo Chemical Group companies have been trying to achieve "technology fusions" by close collaboration among themselves. For example, researchers of Sumitomo Chemical have been supporting Sumitomo Pharmaceuticals through the supply of bulk products, toxicological studies, organic chemical synthesis process development and biotechnology-related research.

Secondly, A vigorous expansion of our international business operations, with particular focus on Asia. The following recent developments in this region are particularly noteworthy:

- 1) China. With a population of 1.3 billion, China has achieved vigorous economical development over the past two decades. It has been making remarkable progress in carrying out reforms and economic liberalization. While China is still a developing country with its GDP being one-quarter of Japan's, it has enormous economic potential. But, China still faces numerous economic problems common to developing countries. They include the gap between the coastal and inland areas in terms of economic development and the need of technology and capital required to sustain development. The world cannot afford to let China fail in this shift to the market-oriented system.

China joined the World Trade Organization (WTO) in October 2001. China's full participation in the WTO is important for world trade. It will certainly help China become a full member of the world community. She must continue to work on putting in place adequate systems to protect intellectual property rights and patents and also to protect the environment during the process of industrialization.

- 2) A remarkable expansion of trade between Asia and the rest of the world, as well as within the Asian region:

In 1990, Japan's exports to Southeast and East Asia amounted to 86 billion U.S. dollars; it doubled to 194 billion U.S. dollars in 2000. Its imports nearly tripled to 143 billion U.S. dollars from 57 billion U.S. dollars in the same period.

The United States' exports to the same region also rose to 129 billion U.S. dollars in 2000 from 57 billion U.S. dollars in 1990. Over the same period, its imports increased sharply from 93 billion U.S. dollars to 263 billion U.S. dollars.

Similarly, EU exports to the same region increased to 108 billion U.S. dollars in 2000 from 44 billion U.S. dollars in 1990, while its imports increased sharply to 174 billion U.S. dollars from 54 billion U.S. dollars over the same decade.

As for intra-regional trade during the same period, the Association of Southeast Asian Nations' (ASEAN's) exports to China and Hong Kong, for example, quadruplicated from 5 billion U.S. dollars to 22 billion U.S. dollars. Its imports from China tripled from 5 billion U.S. dollars to 16 billion U.S. dollars. This high rate of growth in trade within the region is truly remarkable.

Because of the high economic growth potential, "Move to Asia" became a common strategy. I heard Sir Ronald Hamper, former Chairman of ICI speak at a Chemists Club luncheon in New York City. He told the audience, "In 20-25 years, the share of Asia in the world chemical industry will reach 50 percent, and unless you become active in Asia, you will be dead."

In the 21st century, Asia will continue to be a major driving force for world economic growth. Asia is extremely diverse in terms of history, language and culture. Asia is also diverse in terms of patterns of modernization and economic development. Hence, the kind of regional integration as we have seen in Europe would not be possible, but a somewhat loose economic community in Asia should be feasible and contribute to enhancing trade of goods and services to increase benefits to the countries concerned.

Finding a feasible path in the industrialization process is a profound challenge the developing countries will face in the 21st century. The leaders of the developing nations with rising nationalism are often caught in a dilemma. If the pace of economic development is slower, their performance does not measure up to people's expectations; and if the economy grows too fast, society will become extremely unstable, resulting in the social upheaval that we observe in many corners of the world. Thus, it is a vital important issue for the peoples of developing nations to maintain an inner balance between their traditional values and the impact of new science and technology in the modernization process.

Third, Establishing a dynamic and innovative corporate culture imbued with an enhanced entrepreneurial spirit. Great innovation IT has brought about a new technological paradigm for business and industry. We do not see its full impact yet but we are acutely aware that our business activities and life styles will eventually be subject to profound influenced by the IT revolution. Keeping this in mind, the company tries to invest in new ventures with a view to capitalizing on new business opportunities.

Sumitomo Chemical Group sells about 25% of its products outside Japan. Although it is higher than the Japanese chemical industry average,

it is lower compared with foreign multinational companies. In the Agricultural Chemicals Sector and the Petrochemicals Sector, however, company's overseas activities are significant. The Agricultural Chemicals Sector sells 60% of the products in overseas markets. The Petrochemicals Sector has a 270,000-ton-per-year polypropylene capacity in Japan and a 650,000-ton-per-year capacity in Singapore and Houston, Texas. Sumitomo's joint venture in Houston with Chevron-Phillips Chemical produces polypropylene for automobile applications based on its gas-phase manufacturing technology.

In the Asia Pacific region, Sumitomo Chemical has invested in petrochemical and basic chemical projects in Singapore. Singapore has a very open investment climate. This openness has been a major factor in the transformation of the country from a trading port into a modern industrial economy. The government has been pursuing a pro-business, export-oriented economic policy. In Singapore, over 3,000 multinational corporations have made direct foreign investment in the electronics and chemical industries, as well as other industries. Japan and the United States are Singapore's main sources of imports, as well as its main export destinations. Re-exports accounted for 40% of Singapore's total sales to other countries. Manufacturing amounts to about one quarter of GDP.

An economic partnership agreement was signed between the governments of Japan and Singapore in January 2002. While this bilateral agreement is designed to be a stepping stone for multilateral arrangements by the WTO, it is expected that it will provide both trade-oriented countries with a broader base for cooperation in trade as well as science and technology exchanges.

A Japanese consortium, led by Sumitomo Chemical, established Petrochemical Corporation of Singapore (PCS) in 1977 with a 50% equity participation by the Government of Singapore (which sold its stake to Shell Chemical later). Thus, this joint venture started as a

national project. An ethylene center company, the first of its kind in Southeast Asia was built. It was designed to provide feedstocks for the manufacture of polymer resins for industries and households.

In 1984, the first ethylene cracker of PCS began operations. The rapid and vigorous economic expansion in Southeast and East Asia enabled PCS to double its production capacity of ethylene, propylene and their derivatives. PCS's two plants have been running smoothly, producing one million tons of ethylene for petrochemicals, the largest naphtha cracking capacity in Asia. Sumitomo Chemical anticipates a healthy growth of the naphtha supply in Asia and plans to install another cracking unit in Singapore.

In 1999, Sumitomo Chemical started new facilities for manufacture of acrylic acid and its derivatives, methyl methacrylate resins, and super water absorbent polymers. Since these plants have been running at high operating rates, the company plans to build additional production capacities to meet increasing demands.

In January 2000, Sumitomo Chemical acquired the bio-pesticide and plant growth regulator business of Abbott Laboratories. The products of Abbott Laboratories will broaden the range of our agricultural chemical product mix. In pharmaceuticals, the company has pursued strategic alliances with other firms in the world. The drug development work continued to focus on primary fields, including cardiovascular systems, neurology and immunology.

It is extremely fortunate for Sumitomo Chemical to have been able to work with Professors Ryoji Noyori and Hideki Shirakawa who are Nobel Prize laureates in chemistry. Professor Noyori was awarded the Nobel Prize in chemistry in 2001, following Professor Shirakawa in 2000. They made great scientific discoveries, which would help the chemical industry strengthen its competitiveness by applying such discoveries to practical applications.

Professor Noyori originally developed the asymmetrical synthesis. One of Sumitomo Chemical's researchers studied cyclopropanation reactions under the guidance of Professor Noyori and succeeded in developing a new compound manufacturing process. The company's researchers worked on catalysts in collaboration with academia and discovered a new catalyst that can be applied to the asymmetrical synthesis of chrysanthemumic acid. The same process is applicable to pharmaceuticals and agricultural chemicals as well as to the next generation of catalysts for polyolefins.

Another example relates to the discovery of polyacetylene by Professor Shirakawa. A national project on electron conductive polymers was started under his guidance in 1981 and Sumitomo Chemical participated in the project. This led to company's discovery of a unique polymer called "LED." This polymer is quite promising as a major material for display panels.

IV. Concluding Remarks

There have been a series of great technological breakthroughs in biotechnology. We are at a stage when the whole base sequence of the human genome has just been identified. This is a result of research which began in the late 1980's. The enormous amount of generic information, combined with bioinformatics, high-throughput screening technology, and combinatorial chemistry will accelerate the development of new products. The chemical industry will be able to capitalize on such technological breakthroughs as the abundant sources of new applications in the coming decades.

Such technological innovations made by R&D efforts will certainly be the driving force of corporate growth, and have enormous potential to improve to the wellbeings of mankind. We expect that there will

be numerous opportunities for the Japanese chemical industry in general and for Sumitomo Chemical in particular to find practical applications for those unique discoveries. It is our strong hope that chemistry contributes greatly to reducing poverty, diseases and other human sufferings and making the 21st century a century of peace and prosperity.

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