KEIO BUSINESS SCHOOL

MINEBEA AND TAKAMI TAKAHASHI

COMPANY BACKGROUND

Minebea K.K. (Kabushiki Kaisha) was founded in 1951 to manufacture miniature bearings, and under the powerful leadership of Takami Takahashi since 1959, growth was accomplished through bold investments in plant and equipment, an aggressive strategy of diversification via acquisition, and production globalization developed before that of other companies. A summary of the financial performance of Minebea for the twenty-five years after 1963 is shown in Appendix 1.

In 1988, Minebea was a company with capital of ¥56.4 billion, (representing 366.7 million shares), sales of ¥156.3 billion (¥199.6 billion on a consolidated basis), pre-tax profit of ¥15.3 billion (¥7.3 billion consolidated), and 3,700 employees. What could be called its "core" business of bearings (miniature bearings, small-diameter bearings, and rod end bearings) only accounted for 28% of total sales while electronic equipment and components (small-scale precision motors, strain gauges, monitoring devices, calculators, keyboards, speakers, semiconductors, etc.) accounted for the largest percentage of total sales with 46%. Other businesses were machinery components (screws, die cast parts, etc.) with 13%, transportation equipment (motor vehicle wheels) with 3%, special products (defense equipment) with 3%, and other product categories with 7% of total sales, respectively.

Minebea possessed a large number of both domestic and foreign subsidiaries and affiliated companies, with the major ones listed below. Domestically, there were companies as diverse as NMB Semiconductor (very-high speed LSI manufacture), Minebea Electronics (manufacture of electronic materials, components, and devices), Keiaisha (Minebea's original parent organization, dealing primarily in scrap metal), Kanemori (sales of kimonos and bedding accessories), Audio Research (manufacture of acoustical equipment), Cosmo Prierre (cosmetics sales), Actus (home furnishing sales), and Teidai Kogyo (die cast manufacturing). There were over thirty affiliated companies overseas, the major manufacturing operations being New Hampshire Ball Bearings, Inc. (bearings), IMC Magnetics (small-scale motors, monitoring devices), Hi-Tek Corporation (keyboards), and

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For reference material, see Sore demo, watashi wa kaisha wo kau (In any case, I'll buy a company), by Masamitsu Kamura (Toto Shobo, 1987); Keiei no genten wa koko ni ari (Management Basics are These), by Takami Takahashi (Taiyo Kikaku Shuppan, 1987); Ware Tatakaeri (I Went to Battle), by Takami Takahashi (Keizaikai, 1989)

Universal Magnetics (small-scale precision motors) in America; NMB Singapore, Ltd. (bearings, electronic machinery, machine components) and Pelmec Industries (small-diameter bearings) in Singapore; NMB Thai, Ltd. (miniature bearings), Minebea Thai, Ltd. (keyboards, precision motors), and Pelmec Thai, Ltd. (small-diameter bearings) in Thailand; Taiwan Minebea Electronics Company (acoustical equipment) in Taiwan; and Rose Bearings, Ltd. (aerospace bearings) in Great Britain.

Including affiliated companies, Minebea employed 4,000 people in Japan and nearly 20,000 overseas: some 3,500 in America, 3,300 in Singapore, and 12,000 in Thailand. The Minebea Group was thus very multinational from the standpoint of personnel, and from a production standpoint it was even more global. In the worldwide market for miniature bearings, Minebea's market share was about 70%, and with a 40% market share in the combined miniature/small-diameter bearing market, Minebea was the world's leading manufacturer. Minebea's massproduced bearings were all made in Singapore and Thailand, and 95% of all its miniature or small-diameter bearings were either made in Singapore or Thailand. Moreover, 96% of all bearings sold in Japan were imported from Singapore or Thailand.

TAKAMI TAKAHASHI

Takami Takahashi graduated from Keio University's Department of Economics in 1950, and after working for eight years at Kanebo joined Minebea's predecessor Nihon Miniature Bearing (hereafter abbreviated NMB). While studying at Keio University, Takahashi was the student body president of the economics department and captain of the rally squad. The symbols Takahashi designed for squad use—Mickey Mouse and sweater-clad rally members—ushered in a new phase of cheerleading style. (See Note 1) While at Keio, Takahashi also started a pigraising business, and discovering quantities of used oil accumulating beneath U.S. military dining halls, collected it and sold it as raw material for soap. These college-student businesses were quite successful and generated considerable profits. While employed at Kanebo—a first-rate textile company in those days—Takahashi was on the elite track of labor management. He was also the superintendent of the women's dormitory at the Hikone factory, vice-president of a local union, and in 1954 took the lead in support of workers during the so-called Omi-kenshi (silk spinners') human rights dispute.

In 1959, then 31-years-old Takahashi joined NMB as a director at the urging of his father, Seiichiro Takahashi. The elder Takahashi was president of Keiaisha, which sold motor vehicle scrap metal, and NMB was a venture in which he had invested at the request of Mr. Gisuke Ayukawa (the well-known founder of the Nissan Group). NMB was at that time a small factory with only 55 employees. At age thirty-eight, Takami Takahashi became president of this company in 1966, but he had begun to aggressively manage as though he were actually president immediately following his arrival. In 1959—the year he joined the company—Takahashi went to America on a business trip and visited MPB Company, the U.S.'s largest miniature bearing

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Note 1. Takahashi had the following to say concerning his experiences in those years: "I wasn't an autocrat, but I always let my staff know precisely what it was I wanted to do. …you have to specialize in things. Not many can become leaders of people. These few leaders must train themselves, and put in a lot of effort…

manufacturer. He immediately imported the latest machinery which he had observed there, and in the following year he signed a mutual sales contract with the same company. This was the first time that NMB products were exported to the United States. In 1961, at the same time NMB became listed on the Second Section of the Tokyo Stock Exchange, it was decided to construct a large-scale factory at Karuizawa following overtures by Nagano prefecture, and using technology procured from SNFA of France, this new factory began operations in 1963.

THE GROWTH STRATEGY OF MERGER AND ACQUISITION

ACQUISITION OF THE REED FACTORY OF SKF AMERICA

About the time production of miniature bearings was begun at the Karuizawa factory, Takahashi personally took the lead in pursuing entry into the American market. By the time the sales subsidiary NMB America was established in Los Angeles in 1968, over 70% of total NMB production volume was being exported to America, and NMB had a 40% share of the total U.S. market. One year later in 1969, six diversified American manufacturers closed their miniature bearing factories; this state of affairs was followed by three major U.S. bearing producers considering import restrictions, and moreover a lawsuit and charges of dumping were filed by the U.S. Military Procurement Office. Finally, the U.S. Department of Defense issued a directive stating that "Procurement of military supplies considered necessary for national defense industries will not be made from any source that does not have factories in North America." Takahashi, confronted with this "crisis of company life or death" prospect of being locked out of the American market (to which his company exported 76% of its production), asked for an interview with the Chairman of the Joint Chiefs of Staff and pleaded his case. Encountering no flexibility on the part of the senior officers of the Department of Defense, Takahashi realized that the only way to resolve this crisis was to begin producion in America, and immediately began preparations to acquire a factory.

Information reached Takahashi from a leader in the U.S. bearing industry that SKF, the Swedish bearing maker, had an American factory for sale. Takahashi duly paid a visit to the company headquarters of SKF America and in only two hours' time reached an agreement to purchase the Reed factory in the suburb of Los Angeles for one million dollars. It was instant action without even taking time to see the factory itself. That was Takahashi's company acquisition number one, and at the same time the beginning of overseas production. This was in 1971, just before the "Nixon shock" which caused exchange rates to float. With is acquisition of the SKF factory, Takahashi had evaded the legal restrictions of the Department of Defense, but over half of the machines he had bought sight unseen were inoperable due to disrepair, and for a long time there were persistent labor management problems. Takahashi's first M&A venture could not be said to have been totally satisfactory, but Takahashi recollects that he learned the necessity of a strategy of diversification from such experiences in actual company acquisitions, from learning about methods of overseas capital raising (acquisition costs became lower due to currency fluctuations resulting from the "Nixon shock") and also from firsthand experience of the risks involved in a single-product industry such as miniature bearings.

ADVANCING INTO SINGAPORE AND FURTHER ACQUISITION IN AMERICA

In 1972, the year following the purchase of the SKF factory in America, NMB established the 100%-owned subsidiary NMB Singapore Ltd., the second base of overseas production. As opposed to the entry into America, which because of market protection was a forced decision with no room for alternatives, the Singapore plant was a planned entry to take advantage of low production costs. At that time, wages in Singapore were as low as one-sixth of Japan's, and in addition there were provisions for favorable tax incentives. As the first bearing manufacturer in that country, NMB Singapore qualified for pioneer status, and it showed a profit from it's first year of operation. The company sent 180 locally recruited factory employees to Karuizawa for an extended period of training and had production fully under way within a very short time. With the beginning of operations in Singapore, NMB had succeeded in establishing a system of internationally allocated production. In other words, there was a production base of standard products in Singapore, a production base in the American factory for the U.S. market (composed mainly of the Department of Defense), and the Karuizawa factory which handled new product development as well as production of specialty bearings requiring high levels of precision. Also, Karuizawa assumed the role of production control center to support internal NMB Group production and technology.

BEGINNING OF THE M&A STRATEGY

By 1972, NMB had a 70% share of the domestic miniature bearing market and exported 60% of its production worldwide (America being the major market), but it was clear that there were limits on the growth of a single-product manufacturer producing only miniature bearings. Takahashi identified precision motors as a diversification product and established the Astroshin Company: it engaged in development and manufacturing and Takahashi found that it was more difficult to operate than expected. After buying the American factory, Takahashi studied the growth strategies of U.S. conglomerates and learned how they were maintained by strategies of acquiring companies in various business areas, and of the possibilities of efficiently raising capital using such methods as public stock offerings after raising share value through company growth. In 1970 Takahashi began raising capital by public offerings in this way—a method still rare at that time in Japan—and he also actively sought funds in the capital markets (especially by issuing foreign bonds in overseas markets) and allocated these funds to factory acquisitions for the purpose of company growth.

In 1972, Takahashi bought a California-based electronics equipment maker called ITL Technology Corporation (with 500 employees), and as a result acquired ITL's subsidiary electronics parts maker ITL Singapore (with 450 employees). The following year NMB established a venture capital company in Los Angeles called Japan International Technology (JIT) which was successful in buying several American companies. In the same year, JIT acquired 57% of the stock of IMC Magnetics, a maker of small-scale motors and computer-periphery equipment. This company, with 650 employees, was at the time bigger than NMB itself.

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After 1972, NMB aggressively tackled company acquisitions in America using tactics as described above, and in the same year it also attempted its first domestic acquisition. Because Takahashi thought an aircraft and computer-related parts group essential as a diversification course, he picked Tokyo Keiki—a major manufacturer of aircraft gauges and instruments—as an acquisition target and acquired 29.4% of its stock. The leading shareholder in Tokyo Keiki was Sperry-Rand with 31.4%, and there was opposition to NMB's request for cooperation with Sperry-Rand from the management of Tokyo Keiki and other leading principals. In the face of opposition from Mitsubishi Heavy Industries (which had dispatched one of its own executives to be Tokyo Keiki's president) and others, in the end NMB was unable to acquire managerial control of this company.

M&A IN JAPAN

NMB's first successful acquisition in Japan was Shinko Tsushin Kogyo in 1974. This company, a maker of strain gauges, was listed on the Second Section of the Tokyo Stock Exchange, had 390 employees, sales of ¥2.8 billion, and operating losses. The sensor which was its main product was quite attractive: it had very wide applications in the gauge and computer industries. The following year NMB bought 50.9% of the stock of Tokyo Rashi for ¥1.9 billion, and also 51.2% of the stock of Shin Chuo Kogyo for ¥2.3 billion. Both of these companies were listed on the Second Section of the Tokyo Stock Exchange, and both had operating losses. (See Note 1) Tokyo Rashi had 650 employees and was a leading maker of precision screws with over half of the market share in aviation-related products. Shin Chuo was a maker of both defense-related and non-defense related equipment. In order to build these companies back up to profitability, Takahashi brought in technology from foreign firms and also implemented rationalization with technological support from the NMB factory in Karuizawa, production integration, personnel cut-backs and transfers, etc. (See Note 2)

In 1977, NMB acquired 27.8% of the stock of Osaka Sharin Seizo, also a company listed on the Second Section of the Tokyo Stock Exchange, for ¥1.5 billion. This company manufactured wheels for motor vehicles, had 510 employees, and—again—was a company with operating losses. The following year NMB acquired Hokuto Onkyo, using a one-for-three exchange of stock to acquire 60% of Hokuto's shares. This company was a major manufacturer of speakers with seven domestic factories (employing 800 people) and also a factory in Taiwan; after purchase by NMB production at these locations was concentrated into three factories and some production was shifted to Singapore. In the same year NMB bought a medium-sized company called Hata Tsushinki which made transformers.

In 1979, Shinko Tsushin acquired Doboku Keisan Center, a maker of metering equipment for the construction industry. In the same year NMB bought Teikoku Die Cast, a Second Section-listed company which manufactured die casts. It was also in that year that NMB bought Second Section-listed Kanemori. Kanemori was operating at a profit and was without debt; it sold kimonos and bedding accessories door to door and had over 2,000 employees. This was the first NMB acquisition in a non-manufacturing field. It was said that President Takahashi thought that this company would be useful to the NMB Group as a venture capital or consumer finance company.

OVERSEAS STRATEGY

In 1973 the NMB Singapore business—which had just begun to produce miniature bearings—was proceeding favorably, and by the second half of the 1970's product lines from acquired companies in Japan began to be shifted one by one to Singapore. Accordingly, manufacturing at NMB Singapore was diversified into products other than bearings. In 1976 strain gauges and stepping motors of Shinko Tsushin were made in Singapore and then exported to America and Europe. In 1977 production was begun of the precision screws of Tokyo Rashi and transformers of Hata Tsushinki. In 1983 NMB bought Kato Trading; this was accompanied by the start of manufacturing of calculators at NMB Singapore which were exported to America on an OEM basis. Also this year, production of Hokuto Onkyo speakers was started in Singapore as was OEM production of stereos. In 1979, NMB Singapore employed some 1,200 people in the bearing factories, and some 2,200 people in non-bearing fields, making it a major corporation with a total of over 3,400 employees. In that year the number of NMB employees in Japan was 1,200, and the American NMB group had a total of 1,300. Protecting itself with profits earned from its core miniature bearing business, NMB increasingly moved production from companies acquired in Japan to Singapore and planned further diversifications into non-bearing industries.

In 1980, Japan's third largest bearing maker, Koyo Seiko, found itself facing a financial crisis and put its Singapore subsidiary up for sale; NMB bought it for ¥3 billion, established Pelmec Industries, and began mass production of small-diameter bearings. The demand for miniature bearings was expected to increase dramatically, primarily in the office automation (OA) machine field, but there was also a sharp increase expected in the demand for small-diameter bearings in the VCR, computer, and OA machine industries.

As related above, manufacturing at NMB Singapore began with miniature bearings, quickly expanded into additional products in nonbearings: the NMB Group had become a very prominent Singapore corporation. However, Singapore was enjoying steady economic growth throughout the 1970's and labor shortages and wage increases were gradually becoming acute. The situation was evolving and the advantage of labor-intensive assembly was slowly being lost. For this reason, Takahashi decided that for any further expansion of

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Note 1. In 1975, Takahashi lured a man named Hanamura away from Nikko Securities and put him in charge of mergers and acquisitions. Hanamura resigned in 1981, the year NMB merged with four of its acquired companies to become Minebea.

Note 2. Takahashi had this to say about the top personnel in the companies which he acquired. "As a general rule we changed top personnel. However, we didn't just all of a sudden bring in someone from the outside and put him at the top. We picked someone who was maybe number two or number three in the hierarchy, someone with intimate knowledge of the company and the job. If you choose from within the company, everyone is likely to consent to his decisions. In other words, talented men exist in the company." Takahashi op. cit., page 210.

On the subject of personnel reductions: "I have merged with any number of companies up to now, and I have never hesitated to fire personnel. If the numbers just don't add up, you must begin by first reducing fixed costs. In labor management you have to fire people. Someone who can fire people and keep internal problems from developing is a real labor management professional. …in M&A, once you get a company, that's just the beginning. If simply acquiring a company was the ultimate goal, all you would need would be M&A experts. But then you have to restructure, and for that human power and management philosophy is absolutely necessary. (President) Hagino is such a person; therefore, he can fire people. Even when people are fired, there are no complaints…" ibid., pp 85-86 overseas production it would be better to pursue areas in Southeast Asia other than Singapore, and he investigated the Philippines, Malaysia, Indonesia, Burma, and Thailand as candidate locations. As a result of these comprehensive investigations, which considered the political situation, possible religious problems, labor market and wage levels, and government policy towards foreign investment, the overall decision was to select Thailand. (See Note 1) The Thai government had had a preferential treatment policy toward export-oriented industries since about 1975, and in 1980 with Japanese wages as a base of 100, Singapore was 35-40 and Thailand was 10: wages in Thailand being as low as one-fourth those of Singapore.

A number of Japanese companies had established themselves in Thailand since the 1960's, and in the early 1970's Japanese "over-presence" had reached the point where there were student movements to boycott Japanese products. However, after the U.S. military withdrawal from Vietnam, Thailand was viewed as having significant country risk, and direct investment from Japan stagnated. When Takahashi chose Thailand to be the location for the new factory, he by-passed the Bangkok area with its numerous Japanese companies and decided instead on Ayutthaya, at 80 kilometers not far from Bangkok but with no previous Japanese industrial presence. The plan was for an initial investment of ¥2 billion, and production was to be not only miniature bearings but also speakers and transformers, the entire volume of which would be exported. In 1980 the 100% NMB-owned company NMB Thailand was established, and in 1982 production was begun. The Thai Board of Investment had authorized preferential provisions such as an eight-year waiver of all corporate tax. For the necessary personnel in the nonbearing industries, Thais working at the Singapore plant were relocated to the new Thai factory, and a large core work force in bearings and college-educated engineers who had managerial or supervisory potential were sent to the Karuizawa plant for long-term training. No effort was spared for the sake of smooth production at the new location, and no difference was expected between the production efficiency in Thailand and that in Singapore or Karuizawa. At present, with 12,000 employees, this NMB operation is the largest Japanese manufacturing operation in Thailand and is producing miniature bearings, magnetic heads, strain gauges, keyboards, precision motors, small-diameter bearings, and other products.

THE MERGER OF FOUR COMPANIES

In October 1980, Takahashi used exchanges of stock to merge into NMB the four key subsidiaries and affiliated companies of the group—Shinko Tsushin, Tokyo Rashi, Shin Chuo Kogyo, and Osaka Sharin—and changed the name of the compnay to Minebea. The manufacturing departments of each company came under the control of Minebea's operating divisions. As a result of the merger, Takahashi believed that Minebea's power to raise capital was enhanced, and he evaluated highly Minebea's ability to pursue essential investment

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Note 1. "We have invested over ¥50 billion in Thailand and have 12,000 employees there. Around 1970, I thought that as a factory location anywhere within Japan was just no good, and way back then I predicted that Honda would outstrip Toyota. Of course, a company like Toyota can have excellent efficiency operating with just one location near Nagoya. But on the other hand…if you look long term a company like Honda has the advantage. In those days, I figured that sooner or later the free world would become just one big market. Therefore, I thought that whoever expanded internationally the soonest would be in a good position to succeed." Takahashi, op. cit. p. 80

for greater competitiveness. Also, he saw merit in the merged companies' effective use of undervalued assets, efficient use of money, and advantages in the economical purchasing of materials and in recruiting personnel.

In 1982, Hokuto Onkyo and Hata Tsushinki were merged and reestablished as Minebea Electronics. In the U.S., Minebea acquired Pacific Propeller, a manufacturer and repairer of aviation propellers; it was incorporated into the IMC Magnetics Group. In 1983, the medium-sized refrigeration-use fan motormaker Kondo was acquired, as was the 100% Sony-owned, high-quality speaker maker Audio Research. Also in the U.S. that year, the number three computer keyboard maker Hi-Tek was merged into Minebea. In 1984, Teikoku Die Cast was merged into Minebea and a company called Cosmo Prierre was established to sell cosmetics. Also, Minebea Electronics and Audio Research were merged to form NMB Audio Research.

ENTRY INTO THE SEMICONDUCTOR BUSINESS

In 1984 Takahashi astonished the semiconductor industry—then in a serious slump—by founding NMB Semiconductor (NMBS) to manufacture and sell LSI chips. Eighteen percent of NMBS's capital came from Minebea, and three venture capital companies also contributed 18% each, with banks investing the remainder. Mr. Tamura, executive vice-president of Tokyo Sanyo Denki, was recruited to be NMBS's president, and 256 kilobyte dynamic RAM technology was brought in from the English semiconductor maker Inmos, which also assisted with sales. Concerning the entrance of Minebea, a precision machine component maker, into a semiconductor business which was characterized by fierce competition between major manufacturers, the opinions of leading electronics makers—who had long since entered the market—were haughty ("We'll observe their performance"). However, Takahashi felt that the semiconductor was just another machine component, and gave forth the opinion that for Minebea, which specialized in mechanical engineering components and devices, the choice of semiconductors as a step in the direction of electronics was a perfectly natural progression. He claimed that he had absolutely no anxiety concerning the capital, human resources, or technological aspects. Minebea invested ¥30 billion and built a state-of-the-art LSI factory in Takahashi stated that even in the sales aspect Minebea had a stronger sales network overseas than Japan's other electronics makers and that he had no fears whatsoever.

In that year Takahashi also acquired one of the three American makers of miniature bearings, New Hampshire Ball Bearings (NHBB) by means of a friendly TOB (takeover bid). At a cost of $110 million (¥27 billion), the company was acquired at a cost of more than twice the market value of $23 per share.

On this point Takahashi said "This was a success precisely because we paid more than twice the market price. There are any number of examples where someone tried to buy at market price and failed because of the backlash." Settlement of the acquisition of NHBB required a year and a half: during that time the acquisition was subjected to a strict investigation by a board consisting of the Department of Defense, the Justice Department, the Department of the Treasury, and others for a total of eight agencies. It was said that the most difficult part was being cleared of anti-trust suspicions. Takahashi himself was subjected to three full days of inquiry by dozens of people, but having endured that cleared the way for the acquisition. After NHBB was acquired, NMB America's Reed factory was brought under the umbrella of NHBB, American management was replaced, several Minebea manufacturing managers and engineers were brought in, the production system was overhauled, and within three years of purchase Minebea had managed to improve its earnings.

OFFERING TO MERGE WITH SANKYO SEIKI

In 1985, Minebea acquired a nineteen percent share of precision machinery maker Sankyo Seiki to became the leading shareholder, and suggested to Sankyo Seiki's top management that they become equal partners in a merger. Sankyo Seiki was a manufacturer of music boxes, micro-motors, and other precision components with capital of ¥6.5 billion, sales of ¥98 billion, and 3,400 employees. Takahashi evaluated the company's technology and talent and concluded that the company was late to expand overseas and that its financial performance was low, but also thought that in a merger a complementary effect could be realized. Against this, the Sankyo Seiki side felt that the management philosophies of the two companies were incompatible and that there was no merit in a merger. At the same time they formally turned down Takahashi's proposal, Hachiju-ni Ginko—Sankyo's leading or "main" bank—successfully maneuvered to stabilize shareholdings and guarantee 61% of the stock.

In early 1986, as the leading shareholder, Minebea nominated three directors to Sankyo's board and proposed a plan to improve management, but again this was turned down by the Sankyo side. Takahashi then sent a letter to 250 managers of Sankyo Seiki stating that a merger of the two companies was "The best plan to survive in a difficult environment, combining Sankyo Seiki's technology and talent and Minebea's system of international production." In July of 1986, Minebea charged that president Yamada and other Sankyo Seiki executives had hurt the company by using a dummy corporation to buy up its own shares in violation of commercial law.

Notwithstanding such repeated offensives by Minebea, the attitude of Sankyo remained unchanged. In March 1988, Minebea and Sankyo reached an agreement whereby Minebea would sell to affiliated companies of Sankyo Seiki 14.1 million of Sankyo's shares at ¥1,100 per share, and the end was reached of the Minebea/Sankyo merger problems after three years of struggle. The total purchase price came to ¥15.5 billion, and because the average cost of the stock when Minebea bought it was ¥1,380, Minebea suffered a loss in the transaction of some ¥4 billion. Takahashi said "At the beginning I thought that there was a complementary relationship between the two companies, but then there was a severe change in the state of affairs. There occurred a wearing out of managerial resources, and before I knew it the goal of complementing each other became a goal of merging to save one of the companies. However, the side to be rescued did not see it that way. The amount we invested in Sankyo Seiki was huge, but even with a loss we decided to give up."

TRAFALGAR-GLENN'S OFFENSIVE TO PURCHASE MINEBEA

In August of 1985, just after the first newspaper articles had appeared concerning Minebea's attempt to buy Sankyo Seiki, the American investment company Trafalgar Holding and the British stockbroker Glenn

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International, acting together, announced that they had acquired a considerable total of 23% of Minebea's shares by buying Minebea stock, convertible bonds, and warrant issues. Takahashi said "I have judged that this is not a TOB (takeover bid), but that their aim is to profit from the buying and selling of stock while staging a mock purchase attempt (greenmail), and I have taken appropriate countermeasures. My purpose is to bring down the price of Minebea stock. The first step will be to make a private offering of ¥16 billion worth of convertible bonds (20 million shares). That will mean an increase in the number of stable investors. The second step will be to merge Kanemori with Minebea. The aim of this move will be to reduce the overall percentage of stock held by Trafalgar-Glenn." In response to these moves by Minebea, Trafalgar-Glenn issued a takeover bid proclamation and filed an injunction requesting that the merger with Kanemori be declared invalid. However, in April 1986 Trafalgar-Glenn sold their Minebea stock at ¥620 per share and the eight-month struggle came to an end.

CHANGE OF THE PRESIDENCY

Minebea had stirred up management journalism in the months after August 1985 with its problems concerning Sankyo Seiki and Trafalgar-Glenn, but during this time acquisitions continued apace and there were also changes in top management due to the health of president Takahashi.

In 1985, Minebea bought the American company Miami Lakes Operation for ¥3 billion. This company was a maker of power supply equipment for computers. In 1987 it bought for ¥2.1 billion the British firm Rose Bearings, a manufacturer of specialty aerospace bearings (spherical rod end), and with this acquisition Minebea became the world's top maker in this field.

In the autumn of 1986, Takahashi's health deteriorated, and he was hospitalized and underwent surgery. In January 1987, Takahashi resigned as president, and assigned executive vice president Ogino to be his successor. Takahashi withdrew to a position as advisor to the board of directors together with vice-president Ishizuka. Takahashi then assumed presidency of the respective distribution divisions of the Minebea Group—Kanemori, Actus, Cosmo Prierre, etc. Ogino had been a subordinate of Takahashi (a foreman at a factory in the days when they both worked at Kanebo), had joined NMB in 1962, worked mainly in the manufacturing area, and at the time had overall responsibility for all domestic and foreign manufacturing. At his appointment speech, Ogino said "I've known Takahashi for over thirty years. I respect him more as my "mentor" than as my superior. If I am told to be president, then that is what I will do." But in September, Takahashi had recovered both his health and his self-confidence, and leaving his position as advisor returned as chairman of the board of directors, and appointed Ishizuka as vice-chairman.

BUSINESS PHILOSOPHY OF TAKAMI TAKAHASHI

As Minebea's leader, Takahashi had developed the company as described above, and from the early 1970's attention was paid to Takahashi's opinions as well as to his business behavior. The following are some of

Takahashi's words on business strategy, views on human resources, criticisms of Japanese business society, and his life-style.

GROWTH VIA ACQUISITION

Takahashi had this to say in response to the question of why he acquires companies:

"Simply because I want to expand business. In capitalist economies the bigger the enterprise the better. With a big company there is more room to employ all the management resources of people, materials, and money. This is especially true in Japan. The greater the scale of a company the greater its business power. To attain this goal of scale, it is much faster to expand via acquisition, to tie in with a large number of companies than it is to expand via internal growth."

Takahasi said that while it is possible to double one's sales in a given time using internal resources, one can quintuple them by acquisition. He said: "Because I am a businessman, not an engineer, I do anything as long as it generates a profit. That's why we got into the clothing and cosmetics businesses. It is just a matter of assigning priorities for the effective utilization of time and money." Takahashi had formerly studied American conglomerates and had used such references for his own business expansion, but he noted that "A conglomerate that merely buys and sells companies for the sake of profit per share of stock is no good. That's not a real business. That's an empty business." He said "Where I differ from a conglomerate is that I am basically interested in operation. Before I make a decision on an acquisition, I always ask myself if I can effect a strategy for that company, if I can operate it and control it, or not. If I don't have self confidence on those points, I don't go ahead."

Concerning his first unsuccessful domestic acquisition attempt of Tokyo Keiki, Takahashi said: "People say that from that experience my approach changed from hostile to friendly, but that's not true. In Japan the only companies that can be bought by negotiation are ones in tatters. You can't acquire good companies in any way except force." In the late 1970's he made several acquisitions in rapid succession. Takahashi remarked "Up to then I had bought several companies which were operating at a loss, but from that point on I had a policy of buying companies which had relatively good income." Takahashi indicated that in the case of "bail out acquisitions" there were advantages to be had—undervalued assets and so forth—but because the risk was so high, the burden was heavy. Also, the business climate in Japan was changing somewhat, and compared to previously there was slowly more acceptance of Takahashi's growth-via-acquisition strategy, and Takahashi thought that perhaps int he future it might be possible to sell a company when its value was high.

On the other hand, concerning his experiences during these years, Takahashi said: "The truth is that buying a company in Japan that has high earnings is difficult. Recently the term M&A (merger and acquisition) has become fashionable in Japan, but to speak plainly the conditions just don't exist for friendly or hostile takeovers to be possible. At best, only merger strategies are possible." Impeding M&A activity were both attitudes and institutions. Business behavior was changing in response to deregulation and internationalization of finance, but in Takahashi's view the attitudes of Japanese businessmen and bankers had hardly changed at all. As examples of institutional and bankers had hardly changed at all. As examples of institutional and customary practice barriers, there were mutual holdings of shares among financial institutions as well as various under-the-table entwinings of interests, "goodwill" repayment periods of five years in Japan (in America periods of up to forty years were permitted), and there were also administrative laws on foreign exchange restricting foreign ownership of stock in Japanese companies to ten percent.

Concerning his experience with Trafalgar-Glenn buying up Minebea stock, Takahashi said that there was a problem with implementing a defensive strategy against a takeover bid in Japan: institutional disapproval of a company holding its own stock. Takahashi said that he did not believe in the concept of stock cross-holdings by institutional investors in Japan as a defensive policy against offensive stock purchases. He claimed he even tells the banks who hold Minebea stock that "It's fine with me if you sell it when the price goes up." Takahashi said that the best policy to maintain control of management is to maintain satisfactory financial performance and raise the price of the company stock, and in addition to increase the amount of stock. He proposes that if Minebea had over 300 million shares at over ¥1,000 per share, to control over half of it would require ¥150 billion, and therefore the company would be safe.

SUCCESSES AND FAILURES

When asked what factors were responsible for his business successes, Takami Takahashi listed the following three: instinct, "brains," and effort. Most important was instinct: a gut feeling for knowing "where the problems are and what actions to take for success;" a personal characteristic that had to do with insight, decision-making ability, risk-taking, etc. (See Note 1) "Brains" meant knowledge and analytical ability. Effort meant always thinking things through very carefully. Because Minebea was now a large company, Takahashi reflected that now he would have to think even more deeply and more exhaustively than before. (See Note 2)

When asked if in his experiences in business he had ever "fumbled the ball," Takahashi offered these examples. First, he had joined Kanebo, spending eight years there as a white collar employee, and as a businessman those eight years were wasted, he said. (See Note 3) Also, there were times when he erred on the direction of growth or got involved with a no-growth company. The acquisition of Teikoku Die Cast was an example of this. Even in such cases, however, there might be an acquisition of technology, know-how, or capital gains; even with a failure there was always something which could be nurtured. But there was always a residue of regret when a lot of time was spent on something with limited potential. Also, he had established a joint venture (SWC) in Singapore with a Swiss company to make cases for wristwatches, but due to a financial deterioration of the parent company there were no orders forthcoming. Both Teikoku Die Cast and SWC had gone out of business. Furthermore, on the limits of a president who was not an engineer, Takahashi gave two examples of when he had withdrawn from a project because he could not evaluate future prospects when they were introduced into the acquisition talks. One was with a connector company: Takahashi canceled the purchase plan because he was afraid of the necessity for tremendous effort after the acquisition to improve the financial position. The other concerned a reed frame company which he was asked about acquiring—

Takahashi looked at the factory but felt no enthusiasm. Takahashi recalled that if he had bought these companies, Minebea would now be a company with sales of ¥200 billion.

MINEBEA EXECUTIVES

Takami Takahashi went along with the general agreement that his was a one-man management. Some in Minebea's management stated that in the entire company management. Some in Minebea's management stated that in the entire company there was only one general manager. (See Note 1) Takahashi said: "Top management bears total responsibility for risk and makes decisions. Absolutely no blame can be laid on other people or on surrounding circumstances. When you make a decision and something goes wrong, you have to put all effort into finding a solution. If the situationis beyond saving, you make a new decision. As a matter of course a wise man sometimes has to reverse himself." Some managers claimed that Takahashi said one thing in the morning and a totally different thing in the evening, and if you pointed this out to him you would be told "you are too inflexible." Takahashi said "You only need one generalist in a company. There is no mistaking that my job is to properly allocate professionals." Blow Takahashi were financial officer Ishizuka (longtime second-in-command as managing director or executive vice-president, since September 1987 vice-chairman), production officer Ogino (former managing director, president since January 1987), and sales officer Ishikawa (managing director), all of whom Takahashi thought trustworthy. Takahashi delegated total authority to these men when he judged that everything would go smoothly under their control; conversely he intervened heavily whenever he thought things would go wrong. Managers at the Karuizawa factory said "We think that this is a one-man company, but we actually do our jobs quite unhindered. Delegation of authority in this company is complete." Takahashi said that the three key memebers in their respective functions exhibited about an equal amount of capability, and that the company possessed a professional group of men of ability. Of the eight years Takahashi had spent at Kanebo, four years had involved experience in a labor management department, and he though of himself as a labor management specialist.

It would be accurate to say that the trio of Ishizuka (who joined Minebea in 1958), Ogino (joined 1962), and Ishikawa (joined 1963) were "native-born" staff who had been in Minebea from its founding, but until very recently the only top executive who had entered the company right out of college was Ishikawa. In 1986 six younger executives in their 40's—who had joined right out of college or who were about the same age—were

Note 1. "All hearsay information has to take into account the subjectivity of the speaker, so it's best if I can verify things myself. Especially with overseas information, if you're not careful you can lose your neck. I knew that it was always important to refine my own sensitivity to information." Takahashi op. cit. p. 59

Note 2. "But in the end it's mostly luck, of course. People may say that Takahashi can see the future, but that's only a joke, of course. I've never once thought that I felt confident enough to know sitting at my desk what would happen in the future. One more thing is who you happen to meet. I felt this when we were buying SKF's Reed factory." Takahashi op. cit. pp. 67-69

Note 3. Takahashi had this to say when asked "Whta did you learn at Kanebo?": "Not much. In other words, I didn't think top management was any good. As for why I thought they were no good, they never put much effort into their jobs at the same time they were always using company money to enjoy themselves. I completely associated myself with the actual factory workers. The majority of them trusted my ideas and actions… I was confident that the people would believe in and follow me." Takahashi op. cit. pp. 42-44 appointed to the board of directors.

When asked a question concerning his successor, Takahashi replied "Any debate about my successor is nonsense. If one is necessary, the matter will naturally decide itself." A few years previously, when Takahashi had become ill and required surgery, he had called together about fifty executives of the company and nominated Mr. Matsuoka (a member of the board, Takahashi's brother-in-law, and vice-president of the board of directors of Keiaisha, Minebea's largest shareholder) to be his successor should anything happen. Takahashi felt that Matsuoka was a man who, as a coordinator, could maintain the cooperation of the key members and other executives. As mentioned previously, when Takahashi underwent surgery for the third time in January 1987, he designated Ogino, the number threeman in the company, to be the next president.

HUMAN RESOURCE AND ORGANIZATIONAL CULTURE

Takahashi was of the opinion that "I never think that there is any lack of talented individuals in this company. Because I can recruit from other companies if I need a man of ability, particularly for the officer class, I never worry." Also, "In this company people are free to come and go. If someone wants to quit I make absolutely no attempt to hold him back. If someone says of his own accord that he wants to quit, that's fine. When someone leaves, we can promote those who worked below him. There have also been people who quit for a time and came back, saying 'I had thought that you would try and get me to stay.'" Takahashi also said, "Because men of talent gather in proportion to the status level of the company, I have no excessive demands." and "The company has no responsibility to develop its employees; I tell them to grow on their own." (See Note 1) "In the work places of the company there are a lot of people who go about their jobs in a fun, lighthearted way say this is a cold company, and those who say it is a warm company, but actually it is neither." (See Note 2)

Note 1. "In a company with over 200 million shares, if someone owns more than fifteen percent he should devote himself to the company. It's not necessary to have 51%." Takahashi, op. cit. page 71. The largest shareholders in Minebea are listed below (Yuka Shoken Hokokusho [Financial Statements of Minebea], 1987)

	share holdings (in thousands of shares)	% of share holdings by total issues
Keiaisha K.K.	30,868	11.80
Sumitomo Trust Bank	12,652	4.84
Takahashi Business Economy Research Foundation*	12,347	4.72
Dai-ichi Life Insurance	8,400	3.21
Nihon Choki Shinyo Bank	8,001	3.06
Hokkaido Takushoku Bank	5,134	1.96
Taiyo Kobe Bank	4,487	1.72
Tokai Bank	4,276	1.63
Dai-ichi Kangyo Bank	4,082	1.56
Mitsui Bank	4,074	1.56
Total	94,321	36.06

*This was a foundation established at the request of former president Seiichiro Takahashi, who endowed in with his shares which became the foundation of its assets. The purpose of the foundation was to conduct investigation and research on business economics and other worthwhile projects.

At the Tokyo office the separation rate was comparatively high, as was the number of people who had joined from other companies. In Karuizawa, Minebea groomed young engineers and skilled workers who had joined the company fresh from college and high school, and the separation rate was lower than it had been in the past. Takahashi had praised Ogino, who had long supervised the Karuizawa factory, as "the number one labor management specialist in Japan," and Ogino himself said that he had self-confidence in his ability to attract and retain technicians and skilled workers. Takahashi said "You can recruit senior managers but you can't just hire technicians from the outside."

Takahashi gave the opinion that there were not many company presidents in Japan who went so far as to write their own memorandums. His objective in writing instructions on company policy and decisions was to make sure that they were thoroughly understood by everyone in the company, not just the managers. In Minebea there were no company slogans, QC circles, suggestion programs, etc. It was said that because quality was ensured in the work place as an everyday matter, there was no need to enact ameliorating QC circles. Takahashi said that "There is no unpleasant Japanese-style pressure in this company."

DOMESTIC AND INTERNATIONAL MANAGEMENT

Takahashi stated "I make no particular distinction between domestic and international management. From the beginning I've never given any thought to such a thing as an overseas strategy." Minebea had no department such as an international division or overseas division. The triumvirate of Ishizuka, Ogino, and Ishikawa bore direct responsibility for the financial, manufacturing, and sales areas respectively without any distinction of domestic versus overseas operations. Karuizawa had tight collaborative relations with the Singapore and Thailand factories, and over half of the technicians and skilled workers had had experience going on a business trip outside of Japan or being assigned overseas. In recent years growth of the Singapore and especially Thailand factories had been remarkable, and Minebea's company-owned Boeing 727 was flying two or three times a week between Tokyo, Singapore, and Bangkok transporting people and materials (raw materials, finished products, and tools).

AMERICA AND JAPAN

From his experiences since the late 1950's in personally leading the expansion into the American market, Takahashi appreciated the frank, open atmosphere of American business society and its application of an indiscriminating, fair spirit in dealing with foreigners. American first-rate companies treated even a no-name

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Note 1. "My favorite theme is that the job educates the person. Being thrown into an actual working environment is what encourages personal growth far more than what comes out of my mouth. When working extremely hard, you find out who is outstanding and who is not, and in the end it is the outstanding people who remain. In this way the promotion of personnel is eventually decided. It's very rational." Takahashi op. cit. pp. 208-209

Note 2. "In Minebea, there are no relatives of a director including myself. What I mean by this is that there are no hidden forces at work in personnel decisions. It is a "dry" organization." Takahashi op. cit. page 209. However, in December 1988, Takahashi appointed his thirty-three year-old son-in-law Yoshihisa Kainuma as legal affairs officer on the board of directors; the man had qualifications as a lawyer in both the US and Japan.

Japanese bearing maker fairly so long as it adhered to the business principles of price, quality, and service. Takahashi said that he became keenly aware of the difference in attitude compared to Japan's business "establishment" (the major companies, banks, and trading firms). (See Note 1)

Takahashi said that the business society in Japan is one where the main players (i.e., the major companies, banks, and trading firms) unfairly take advantage of others in a "society where businesses use their social clout." From the standpoint of his personal experiences, Takahashi strongly criticized the circumstances they perpetuate in which it is very difficult for a small or medium-sized firm or a venture business to take root. Also, Takahashi severely berated Japanese managers for their way of doing business in which they do not fulfill their responsibilities to shareholders in a publicly-held company. Takahashi said: "A company president in Japan has authority like the president of a country. Even should he fail to pay a dividend, if he has any nerve he can't be fired, and even should he recklessly sell company assets, as long as he is paying interest to the banks he won't lose any of his status and can continue being president forever. Under these circumstances can you really call this a capitalistic society?" He continued: "Japan is an agricultural, feminine society, but I habitually behave with the instincts of a hunter."

Takahashi named the following three points as enervating factors in American business society: first, venture businesses—which use new technology to open up new markets—and the availability of venture capital to support them; second, underlying the general principle that a company belongs to the shareholders and not to the managers, the existence of take-overs which act as a check-mechanism by shareholders against management; and third, the existence of anti-trust laws to restrict monopolistic behavior by large companies.

To speak frankly, the cause of America's industrial decline has been its neglect of the primary goal of "making things." There are people who assert that American and Japanese industrial might has traded places because of Japan's low labor costs and the diligence of its workers, but that argument sidesteps the responsibility of American managers. In industry, success will surely come if you make a good product at a low price. People who manage without knowing the factory floor will fail, no matter how good their planning or control systems. Management in Japan is weaker than management in America, but because of this Japan utilizes freedom on the factory floor, flashes of inspiration, and exhortation of worker energy. Success in industry and business requires three things: "brains," or the power to develop products; "face," or marketing ability; and "body," or manufacturing power, but in this age success or failure largely depends on the third factor, that is, who has the more powerful "body." The origin of the reversal of American and Japanese industry can be said to lie in the difference in manufacturing power.

Note 1. "Deep in my heart, I have a lot of appreciation and respect for America. ...If it hadn't been for America's magnanimity and virtue after the war, the Japan we know today would not exist. Japanese technology is outstanding, but if you consider where its roots are—and this includes rationalization and everything else—it all came from America. As for revising it and adapting it to mass manufacturing, that was Japanese. Never for a moment do I forget that America is a great nation." Takahashi, op. cit. pp. 51-52

LIFE STYLE

"Business is a game without a goal. Because in this game there is a lot of money being wagered, it's interesting and keeps you on the edge. In my younger days I was crazy about mahjong, and just as I would want to get to the mahjong table as soon as possible, now every day I feel I want to go to the office early. To me business is not for the sake of the country, as the old-timers used to say, but neither is it for the sake of the investors in my case. I work because it is interesting; in other words, I work for my own sake. As a philosophy of life that's not very deep, perhaps, but I don't think it is necessary to be overly serious when it comes to business."

Takahashi performed his office duties from a modest president's office in the Tokyo headquarters in the Kanda district of Tokyo. He utilized a helicopter for his comings and goings to the Karuizawa factory or Tateyama semiconductor plant. For receiving honored guests in-country, he used either his private residence in Denenchofu or his mountain resort in Karuizawa which was said to have cost ¥5 billion. Takahashi never met or entertained at night clubs or tea-houses in the evening, and arriving home every night by 7:30 spent his evenings pondering business at home, or writing.

"I've been working for well over twenty years, and while there were some rough moments, I've enjoyed my job. I probably can't work for more than ten more years at the maximum. In Japan there are a lot of active executives over 65, but I don't think that they actually work. My mother and wife are always telling me 'It's about time you stopped.'"

Looking back on the past, Takahashi said "Compared to now, my college days at Keio University were much nicer. I was leader of the rally squad, leader of the student union, and in my junior year I read the farewell speech for the seniors at graduation and also read the farewell speech at my own graduation. I did everything I wanted to do. I was an entrepreneur as well, and my student businesses were successful." When asked if he had thought about moving into, for example, politics as a second career after retiring from business, Takahashi replied "No. If I had wanted from the beginning to be a politician like my younger brother (the late Takamochi Takahashi, a representative of the Democratic Socialist Party) I think I could have been a success. But now I am constantly concerned with my health. After I retire, I think I want to have a life style where I can visit all of our factories around the world and write reports."

RECOLLECTIONS AND OBSERVANCES

In April 1988, the case writer conducted an interview with Minebea Chairman of the Board Takahashi and asked his opinions converning management tasks presently facing him and business strategy in the future. Takahashi replied as follows:

> Approaches toward business management have changed compared to when I first set my hand to company acquisitions, but I don't think that Japanese business behavior has changed much at all. Large Japanese corporations (including Matsushita and Nissan) have done many "rescue-type" company acqui-

sitions. Frequently, these companies are approhaed by banks or the government to bail out a business in trouble, or obtain a company in a merger for practically nothing using grand justifications like "it's for the local community" or "for the sake of people" or "the sake of the world." In comparison, it is often said critically of this company that we try to buy out companies just by neatly paying a lot of money. It seems that among Japanese there is a feeling that things are much cleaner if little money changes hands. I think that it's strange to be criticized for acting businesslike. There is a capital gain in re-building a company whose business performance was poor, but there is still considerable risk. It is very hard to repeatedly buy companies in rescue operations.

Our conducting of business acquisitions is different from the M&A profit taking that investment banks do. We position the company we have acquired as one part of our overall operations. We use synergies between the main body of Minebea and the acquired company, and if we can shift production of the merged company's product to our factories in Thailand or Singapore we can increase synergies even more.

M&A has become a fashionable word, but within Japan the idea is still on the "fashionable" level. We have not yet developed the systems and practices of a business society in which M&A can be actually practiced.

In our experience with Sankyo Seiki we paid out ¥4 billion—a heavy loss—but as far as I'm concerned it was like paying a condolence gift. My method is to try a merger or acquisition if I think it will result in profit, and if I think a company is no good, I am businesslike and stay away from it. There will be no deviation from this method, and I will continue to engage in M&A. I have found from these experiences, though, that Japan's owner-like managers are even more stubborn than I had imagined, that employees and labor unions don't express their own opinions or desires very clearly, and also that if managers stick tough even the banks cannot exercise their power.

If Japan's system doesn't change, it seems likely that M&A will never become widespread. On the other hand, it is probably just a matter of time. Because the ideas and concepts of Japanese bureaucrats change quickly, I think we are moving in the direction of deregulation in any event. Even though Japanese companies in America are wholeheartedly engaged in M&A, they aren't allowed to do it in Japan, and internationally this cannot be seen as logical.

Because in Japan the practice of holding your company's stock is not permitted as a self-protection strategy against a hostile takeover attempt, there are no effective steps available. Because I totally disagree with establishing stable stock ownership through cross-holdings by financial institutions, I do nothing to encourage it. The very best defense strategy is do ensure that a company's financial earnings are sound, and to maintain the company's stock price at a high level.

As for Minebea's strategy for the future, I have no thoughts on emphasizing domestic operations or overseas operations, or internal growth or growth by acquisition. Only one thing will never change: aspiration for growth. I never allow a chance for growth to get away. The Minebea Group has invested

¥50 billion in Thailand, and with our Thailand factory the largest exporting operation in the country, it has already acquired a social existence of its own. Right now I am considering a shrimp cultivating operation joint-managed with Thai capital; we would export the proceeds to the Japanese and American markets. I am also interested in another joint-venture along the same lines, with Thai capital, to raise pigs in China and export them to the Japanese market.

sample

Appendix 1

NMB's financial performance (1963 - 1988)

(unit: millions of yen)

Year	Total Sales (exports in parentheses)	Operating profit	Ordinary profit	Profit after tax	Profit per share (dividend per share in parentheses)
1963	266 [13 (5%)]	93	59	34	5.4 (7.5)
1964	318 [68 (21%)]	85	40	▶ 60	▶ 9.5 (0.0)
1965	409 [203 (50%)]	86	25	18	2.9 (0.0)
1966	829 [568 (69%)]	257	193	79	12.5 (5.0)
1967	1,442 [1,007 (73%)]	517	363	60	6.3 (6.0)
1968	1,823 [1,144 (63%)]	580	429	81	5.7 (6.0)
1969	2,250 [1,226 (54%)]	698	501	414	19.5 (6.0)
1970	3,358 [1,842 (55%)]	1,057	755	627	22.4 (7.5)
1971	4,212 [2,382 (56%)]	1,328	935	791	24.0 (7.5)
1972	5,278 [3,032 (57%)]	1,216	1,175	982	23.2 (7.5)
1973	7,474 [3,723 (50%)]	1,386	1,454	1,411	26.7 (7.5)
1974	11,729 [6,588 (56%)]	1,577	1,304	1,215	19.1 (7.5)
1975	12,467 [8,537 (69%)]	1,954	1,709	1,461	19.2 (7.5)
1976	14,748 [8,567 (58%)]	299	167	356	3.9 (7.5)
1977	18,141 [9,194 (51%)]	▶ 650	▶ 551	136	1.5 (5.0)
1978	20,152 [9,179 (46%)]	591	844	297	3.2 (5.0)
1979	26,952 [9,031 (34%)]	2,110	1,803	865	9.4 (5.0)
1980	45,116 [15,295 (34%)]	3,533	2,532	1,286	12.7 (5.0)
1981	73,533 [22,263 (30%)]	3,790	3,410	1,729	14.7 (6.0)
1982	91,131 [30,174 (33%)]	5,714	6,898	3,488	21.0 (7.5)
1983	94,140 [32,520 (35%)]	3,560	5,052	2,496	12.2 (8.5)
1984	130,707 [51,482 (39%)]	7,131	9,171	4,657	21.4 (9.5)
1985	146,289 [71,140 (49%)]	7,621	11,280	5,801	26.1 (11.5)
1986	113,153 [39,108 (35%)]	3,213	8,596	4,455	16.4 (11.75)
1987	127,701 [50,361 (39%)]	6,721	9,062	5,444	20.8 (11.75)
1988	156,521 [75,251 (48%)]	9,739	15,256	7,109	22.3 (11.75)

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