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Keynote Speech by Mr. Hideki Komiyama, Executive Vice President, Corporate Executive of the Sony Corporation, Chairman of Sony Electronics (SEL), USA

The transformation and sustainability of the Japanese consumer electronics industry in the context of a rising Asia

(SHOW TITLE POWERPOINT SLIDE)

I. Introduction

Ladies and Gentlemen,

It is a great pleasure and honor to have this opportunity to address you today on the topic of “Transformation and Sustainability in Asia.” Having worked in the Japanese electronics industry for so many years, I remember when Japanese electronics manufacturers first began exporting their products to the US and were struggling to make inroads into this market. Today, I am happy to note that a fine export from Japan in the form of Daisuke Matsuzaka is coming to Boston, who I have no doubt will give all Bostonians and Red Sox fans a lot of excitement and pleasure. It would be particularly exciting to see Matsuzaka compete against such other great Japanese exports as Matsui of the Yankees, or Ichiro of the Mariners. That would surely increase the number of Japanese tourists visiting the US and spending their money here. How lucky, for both the US economy and for Red Sox and Yankees fans, to have our best players here!

The “export” of Japan’s baseball players to the US, which is not such a novelty now,

was something quite unimaginable just a few decades ago. It shows the transformation and elevation that Japanese baseball has undergone. Likewise, the Japanese consumer electronics industry has been undergoing a transformation of its own, which will be the focus of my presentation today. I will also highlight the challenges that face the Japanese electronics industry in the context of a rising Asia.

II. A brief look at the history of the 20th century consumer electronics industry

Today, when one mentions the word “consumer electronics,” companies such as Sony, Panasonic, Sharp, Samsung and Philips, immediately come to mind. A couple of decades ago, this was not necessarily the case. Some of you may be too young to remember, but when my colleagues and I at Sony were struggling to establish a foothold in the US market, our greatest and largest competitors at the time were US brands such as RCA, Zenith and Magnavox, in addition to GE and Motorola. It is no exaggeration to say that for Sony, RCA was *the* primary competitor to beat, both in consumer electronics and in broadcast equipment.

In the early days of color TV, RCA held an outstanding number of patents related to color TV tube manufacturing. RCA also had formidable strength in technology development. Take, for instance, LCD flat panel displays. If you go into any major store

that sells electronics today, you would see LCD flat panel TVs from Sony, Samsung, and so on. However, when Sony came out with its state of the art Trinitron TVs for which it won an Emmy Award in 1968, RCA announced an LCD flat panel TV, touting it as the future of Television and highlighting its ability to be hung on a wall (SHOW POWER POINT SLIDE no 2).

We all know now that RCA was right on the mark... and almost 40 years ahead of their time.

Yet in just 20 years, RCA and other US brands that were at the top of the US consumer electronics market in the 1960s, were either gone or eclipsed by Japanese players like Sony. RCA, for example, was eventually bought out by General Electric and then later sold to the French electronics manufacturer, Thomson.

My intent in telling these stories is not to gloat over the demise of these great American companies. It is simply to say that from my personal experience, it was most fulfilling to see that, through our hard work, we were able to provide quality products to our customers and wipe away any notion that “Made in Japan” meant poorly made. There is no doubt that, along with other Japanese industries such as the automobile industry, the Japanese consumer electronics industry had made a major contribution to transforming the perception of consumers around the world about

Japanese products. Another point I would like to emphasize is the fact that, nothing is permanent. If past lessons are not learned, history has a tendency to repeat itself.

Since the mid 1980s, a transformation has been underway in the consumer electronics industry as a result of several waves of change, including the rise of non-Japanese – particularly Asian – players and the entry of new extra-industry players into the market. To pinpoint precisely when the electronics industry in Asia began to take off is difficult. However, one can argue that due to the rise of Japanese competition, US manufacturers such as RCA and Zenith began to seek low cost offshore manufacturing facilities in the late 1960s in an effort to reduce costs, investing in such East Asia regions and countries as Taiwan, Hong Kong, and Singapore. Meanwhile, in South Korea, a highly effective government-led industrial development effort was giving birth to a domestic Korean electronics industry.

In retrospect, offshore assembly by US manufacturers did not stave off Japanese competition, and it could be said that the shift of offshore production to Asia contributed to bringing to the East Asia region advanced techniques and manufacturing processes that were originally the domain of US manufacturers. In turn, the spread of manufacturing know-how and electronics technology gave rise to local East Asian electronics companies dedicated to producing increasingly high-tech electronics

products.

Along with the rise of the Asian electronics industry came what I call the first major wave of change to hit the Japanese consumer electronic industry. In September 1985, came the Plaza Accord, from which coordinated devaluation of the US dollar by the top five industrial economies of the time led to the yen appreciating rapidly against it. Appreciation of the yen led to higher export prices for Japanese manufacturers including consumer electronics firms, which, in turn, had two major effects. First, Japanese manufacturers began to step up their foreign direct investment in East Asia where production costs were lower (SHOW POWER POINT SLIDE no. 3).

Second, Japanese consumer electronics firms began to shift into higher value segments of the industry where competition was based more on product differentiation and technology than on price, while consumer electronics imports from the newly industrialized nations and regions of East Asia substituted for lower value segment products that were previously manufactured in Japan. For example, almost immediately following the Plaza Accord in the mid 1980s, Aiwa, a former audio-visual subsidiary of Sony, shifted virtually all of its audio product production from Japan to Singapore and began to “export” its low cost mini hi-fi systems and audio products to Japan with much success. In the meantime, Aiwa’s parent company, Sony, concentrated on fine tuning its

high end home audio and video products and spreading its newly developed digital technology as embedded in the compact disc, which had been released just three years before.

In retrospect, it can be argued that the rise of offshore production of electronics products, beginning with the shift of US manufacturing followed by Japanese production, enabled the newly industrialized nations of East Asia to accumulate a knowledge base from which new and local companies could develop and grow. In the crowded realm of consumer electronics, however, it was still the major Japanese companies like Sony and Matsushita that were the largest players, with more and more consumer electronics products such as digital cameras, DVDs and electronic games being released each year.

I recall that at the time of the Plaza Accord, certain articles were written suggesting that rapid appreciation of the Japanese yen would basically kill off Japan's export-oriented industries such as consumer electronics. Alas, it failed to do so, and instead, the yen's appreciation at that time transformed the industry from a domestic export business to that of a global network with production, research and development – particularly in the areas of software engineering and circuit design – spread throughout the globe.

III. The waves of change and transformation

If we can call the Plaza Accord the first wave to transform the Japanese consumer electronics industry, we are currently experiencing three more waves more or less simultaneously – that is, digitalization, the Internet and China.

The advent of digital technology, which Japanese consumer electronics manufacturers were at the forefront in bringing to market, appeared, at first, to be another breakthrough in differentiation that gave the Japanese a further competitive advantage. Ironically, however, the final output in audio and video signals using digital technology showed less of a difference in quality than that which was apparent among the major manufacturers using analog technology. This, in turn, has pressured Japanese manufacturers to find other points of differentiation focused on design, brand strength, and user ergonomics. Manufacturing products that embedded digital technology such as DVDs also became easier for new and smaller companies who could build them using components and computer chip sets that are, in effect, complete solutions or reference designs provided by outside companies at low cost. As a result, new players could enter the consumer electronics market more easily and develop digital technology products in

a much shorter time frame than was possible in the analog age. The impact of digital technology in this respect is profound. Over the past twenty years, it had generally been the case that a new technology in consumer electronics would be released at a relatively high price in Japan before making its way in the US and European markets approximately two years later at a lower price. It would then be another couple of years before it would eventually hit the global mass market. We have seen this to be the case with such technologies and products as the home video recording system and portable video recording devices. Now, digital technology has reduced the product life cycle drastically, enabling electronics manufacturers to introduce a product in all markets simultaneously. This, in turn, is making it more difficult for large firms to recoup on their large scale investments in product development and technology. The wave of digitalization in the consumer electronics industry has resulted in more players in the market, less differentiation in product features and quality, a intensification in price competition as a result of new low cost players, and an increasing array of complimentary products from which consumers may choose, making it increasingly difficult for companies to raise profit margins.

The second wave to hit the consumer electronics industry is the Internet, and particularly Broadband Internet, which has given rise to new business models and led to

new possibilities in transactions, freedom of choice, and greater overall efficiency. The Internet has allowed new players in the consumer electronics industry to capitalize on the benefits of horizontal specialization. Specifically, companies can now manufacture a product at a lower cost through a global network of suppliers and designers who are connected to each other through the Internet. No longer is it necessary for a company to follow the paths of the major Japanese consumer electronics firms and invest large amounts of money to create a vertically integrated production process for getting products to market. As with the case of the digital wave, the Broadband Internet wave has further lowered the barriers to entry for new players in consumer electronics market while giving consumers around the world an almost infinitely large basket from which to choose. In short, as with digitalization, the Internet has further intensified competition in the consumer electronics industry (SHOW POWER POINT SLIDE no. 4).

The combination of digitalization and the Internet is having a formidable impact on the consumer electronics industry. In addition, we now have China to contend with. Major consumer electronics companies, including Sony, have been investing heavily in China setting up factories that are large enough to achieve the economies of scale necessary for mass sales to the global market. It is now common for certain consumer electronics products from major Japanese brands to be produced in China and sold in the Japanese

or US markets. With its tremendous industrial and engineering potential, China is becoming the factory to the world, consistently churning out low cost high quality products. While many of the consumer electronics products exported from China are marketed under well-known Japanese brands, I believe it is only a matter of time before a Chinese consumer electronics brand creates a lasting impact on a field currently comprised of large Japanese, Korean, and European companies. Just look at history. Who could have imagined that products from a country that, several decades ago, was considered capable only of producing 'shirts, pajamas, and perhaps cocktail napkins,' as US Secretary of State John Foster Dulles once said, would become dominant in the US consumer electronics industry? The Japanese consumer electronics companies must not underestimate their opponents, rest on their laurels, or have an attitude of blind arrogance with respect to China if they are to avoid the same trap that befell the major US consumer electronics firms years ago.

Another aspect of history to take into account is the shift of comparative advantage that has been taking place in the East Asia region, including Japan and China. As was the case of the Japanese consumer electronics industry vis-à-vis the US, the East Asian economies and China have been able to achieve a comparative advantage vis-à-vis Japan due to their success in lowering the cost of production. This shift became more

and more apparent as the electronics industry of Asia and China developed, and Japanese consumer electronics firms began to shift production to these areas, where cost savings were better realized. Meanwhile, the Japanese consumer electronics industry – as I mentioned previously – has attempted to increase its competitive advantage by creating more high-value added, technologically advanced products that would compete on product differentiation. But, as we look at current developments in the industry, I believe it will only be a matter of time before Chinese manufacturers begin producing and competing with higher value added products, utilizing more sophisticated technology. We have seen this happen with our Korean rivals, who only a decade ago were producing mass market low value consumer electronics products (SHOW POWER POINT SLIDE no. 5).

As they have seen their competitive advantage in costs erode, they have moved into higher value added segments and now are formidable competitors with the Japanese in the global market. There is no reason to doubt that the Chinese will be able to do this as well. And given the comparatively high number of talented engineers coming out of their universities and the growing spirit of entrepreneurship in China, there is a strong possibility that Chinese consumer electronics firms may become major global industry players several years down the road. As I see it, China is both an opportunity and a

challenge for the consumer electronics industry.

IV. Challenges to the consumer electronics industry and Asia

If the 19th century was the British century with Britain as the industrial workhouse of the world, the 20th century was certainly the American century, with the US becoming supreme from a geopolitical standpoint and its economy the largest and most influential. There is no doubt that the US will continue to lead in the 21st century and have a great influence on the global economy. Yet despite the dominance of the US economy, within the latter half of the twentieth century, we have seen the rise of the Japanese and Asian consumer electronics industry and the decline of the US consumer electronics industry. Predominance in size did not ensure that all sectors of the US economy would remain competitive. Yet, through a 'creative destruction' process, we have seen the transformation of former US consumer electronics players such as GE and Motorola as well as the birth of new companies and products such as the personal computer and cellular phone rise up and formidably compete in the global market. This painful, but rewarding, experience is something I feel offers much value for the Japanese consumer electronics industry.

As we have seen, the ascendancy of China, digital technology, and the Internet are

having profound effects on the consumer electronics industry and intensifying the level of competition. Long before any of them, however, the Japanese consumer electronics industry was a crowded and highly competitive field. Even after various firms have exited certain segments of the business or were absorbed by others, we still have at least 13 major Japanese companies (Sony, Canon, Matsushita, Toshiba, Fujitsu, JVC, Sharp, NEC, Hitachi, Pioneer, Sanyo, Funai) with annual sales of more than US\$ 3 billion competing with one another. Digital technology is increasingly raising the bar for product differentiation, while the cost structures of most of these major players headquartered in Japan is making it difficult to achieve comparative cost advantage over Asian and Chinese players. Only a few small Japanese players have efficiently and effectively utilized outsourcing and achieved extreme cost cutting and even fewer, among those, have achieved low cost leadership. While the field of producers is becoming increasingly crowded, we are seeing an increasing concentration of retail buyers with a few large scale players becoming global retailers. With more and more companies in the market, and a rising number of products with similar quality and features, it can be argued that the balance of power between suppliers, such as the Japanese consumer electronics firms, and buyers, as represented by a few large scale retailers, will continue to tilt in favor of buyers and encourage further competition

(SHOW POWER POINT SLIDE no. 6)

V. Options for the Japanese electronics industry

Under such conditions, how can Japanese consumer electronics companies maintain their competitive edge and continue to survive? The answer lies in innovation. Innovation, however, does not mean simply the creation of new products. Innovation also extends to the creation of new business models and processes, as well as the creation and utilization of global technological standards such as what Europe has achieved in GSM cellular phone technology. As I mentioned earlier, considering the enormous potential of China in terms of engineering prowess, it is only a matter of time before a Chinese company will develop a low cost-high value product that matches or perhaps surpasses in quality, features, and design, a product made by a Japanese electronics firm. Under such circumstances, the Japanese may increasingly need to leverage other assets such as unique movie and music content and financial services and develop a model that can comprehensively link and deliver content, products and services to the customer. How many of the current major Japanese consumer electronics firms can do this is, however, another issue.

A second answer lies in the facilitation of further creative destruction through business

segment selection and concentration and through M&A. We are currently seeing this process underway in Japan as more and more companies are exiting certain product categories and focusing on their respective core businesses and areas of core competence. Alliances among the electronics firms are being created not only within Japan but also with companies in other regions and industries. As a ripple effect, alliances between Japanese and Asian firms are becoming even stronger. However, the question remains as to whether this process can ensure the survival of all 13 of the major Japanese consumer electronics firms, and the jury is still out as to what the Japanese consumer electronics industry scene will look like after the dust settles.

To facilitate this creative destruction process, the Japanese government will have to step up its efforts in further deregulating the Japanese economy and lowering costs. Thanks to government deregulation, certain costs have gone down significantly as evidenced by the fact that Japan now has the lowest cost of broadband access in the world (ITU World Information Society Report 2006). On the other hand, Japan still has the highest cost of living. To this end, further efforts could be made in deregulating the labor market and lowering the barriers to entry for certain industries to encourage competition. Access to and availability of venture capital should be improved to facilitate the creation of new businesses and opportunities for employment. The

government should also rationalize the highly protected agriculture sector and further encourage the liberalization of food product imports that would allow consumers to increase their disposable incomes and encourage consumption of high value added products. The liberalization of food product imports through the establishment of Free Trade Agreements would also entail lowering tariffs on manufactured products produced in Japan. A liberalization of immigration policy that would make it easier for talented people to come and work in Japan should also be considered. One way to encourage a brain drain into Japan would be for the Japanese government to undertake university reforms that would enable these institutions to attract the best and brightest from all over the world.

The government should also explore lowering the effective corporate tax rate, which – at approximately 40% – is considerably higher than that of China, which is expected to reduce the corporate tax rate to 25% from the current rate of 33% over a five-year period (announced at the People’s Congress, Dec 24 2006), and Korea, which has a corporate tax rate of 27.5% (Toyo-Keizai January 07).

To conclude, while Japanese consumer electronics firms continue to explore for options and strategies for facilitating creative destruction and survival in an age characterized by attaining low cost and efficiency in a global market, it will become

increasingly difficult for Japanese companies to remain in high cost Japan if the Japanese economy does not improve its competitive edge over other economies through such measures I previously mentioned. With the decline of the relative competitiveness of the Japanese economy a distinct possibility, Japanese electronics companies will need to further accelerate the process of globalization of the industry, which had largely commenced at the time of the Plaza Accord, by utilizing the competitive advantages of each region or country and constructing a value chain of business operations around these areas instead of continuing with a Japan-centric business model.

Finally, a third option is to completely exit areas where there is little possibility of achieving long term product differentiation vis-à-vis low cost players, and concentrate, instead, on higher value added electronics products or entirely new fields of business. This is essentially what US companies such as GE and Motorola have done so successfully, and where RCA has failed. For the major Japanese consumer electronics firms that have been dealing with the mass market, this would entail truly large scale restructuring throughout the industry, which we have yet to see happen.

VI. Sony's pursuit of competitive advantage in the electronics industry

At this point, I would like you to allow me to have the pleasure to indulge in a little bit

of corporate P.R. for Sony. As I have mentioned earlier, a major option for the consumer electronics manufacturers to consider in order to effectively compete in this age of dramatically fierce competition is through the relentless pursuit of innovation. A major driver of innovation for Sony in this instance is through the utilization of High Definition, or HD technology for which Sony is a leader in its development and adoption in electronic devices and contents of all kind. By having a full range of broadcast, consumer hardware products as well as content assets, Sony is leading the industry in HD digitalization and is uniquely positioned to enjoy the forthcoming global transition to high definition with such HD products as BRAVIA LCD TV, HD camcorders, broadcast HD equipment, and we are on course to substantially increasing the percentage of Sony products supporting HD (SHOW POWER POINT SLIDE no. 7). No one is better positioned throughout the value chain-“From the lens to the living room”-to benefit from the shift from standard to HD than Sony.

We have also released the Blu-ray disc which we believe will appeal to consumers who are eager to experience and save content in the HD format. Blu-ray can not only store a full length movie in HD, but also has room for interactive games, which can be played using the PS3 (SHOW POWER POINT SLIDE no. 8).

We have also recently launched other unique and innovative products such as the Sony

Reader, which has done extremely well in the US, and the Mylo (SHOW POWER POINT SLIDE no.9).

For your information, in just the first few weeks of online availability of the Sony Reader, we had quickly sold out our initial available stock. Consumer feedback has been overwhelmingly positive, and the publishing industry is very supportive by providing current and backlist titles in eBook form for the Sony Reader. The Sony CONNECT store now has more than 10,000 titles available for download and continues to grow. As for the Mylo, this product has been embraced by the public and press. It was named “Gadget of the Week” by Time.com, and “Gadget of the Month” in Popular Science magazine.

Sony understands that innovation is the key to differentiation and that in this new age of competition where the waves of the Internet, digitalization, and China are hitting the consumer electronics industry, innovation is not only about making products that elicit a “wow!” response from our customers, but also of providing a unique experience to our customers through the combination of products, contents, and services. The Sony Reader and Mylo just mentioned are examples that combine unique hardware with contents and services. As such, the attractiveness of the Sony Reader, Mylo, PS3, Blu-Ray products and so on, will be enhanced by the availability of supporting

services and content. To this end, Sony has entertainment assets such as the world's largest digitalized film/TV content library, its music companies and Sony Online Entertainment.

Aside from coming out with innovative products, contents, and services, Sony will continue to look for new business opportunities where we can enhance our competitiveness and provide a new value-added experience for our customers. We will continue to fine tune our operations so as to allow us to compete effectively in the highly competitive field of electronics. We will also be open to new opportunities for collaboration and alliances that will further drive our businesses and sharpen our competitive edge.

VII. Conclusion

I do not believe, unlike Marx, that there are any iron laws of history. History need not repeat itself if we are cognizant of the past. It may be, however, that in the long term scheme of things, what we are witnessing in the rise of other types of exports to the global market such as Japanese animation, films, music, food, services, money, and now baseball players, is an indication that Japan as a nation is developing a new competitive advantage that will eventually make it a major "soft power" player in a global post

manufacturing-industrial society.

Japanese consumer electronics companies, on the other hand, need not go the way of other once-great pioneers of the consumer electronics industry such as RCA and Zenith if they are prepared to take some truly decisive steps to transform themselves into organizations that can compete in the new industry structure of the 21st century, which has been shaped by digitalization, the Internet and China. At the same time, they must keep in mind the lessons of the past, never underestimating their opponents, never resting on their laurels, and never assuming an attitude of arrogance.

Thank you (SHOW POWERPOINT SLIDE no. 10).

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