

Interview with Jitsuro Terashima, chairman, Japan Research Institute

# Top Priority: Create New Industries Using Japan's Technological Potential

By Hiroshi OKABE



Jitsuro Terashima

In the wake of the first genuine change of government in postwar Japan, the nation's economic policy has entered a period of historic transformation. Amid the global financial crisis in the aftermath of the Lehman Brothers collapse in September 2008, a paradigm shift is taking place worldwide. In such a rapidly changing climate, what form of nation should Japan seek to be and what sort of structural reform should Japan challenge? In an interview with *Japan SPOTLIGHT*, Jitsuro Terashima, chairman of the Japan Research Institute, proposed that from now Japan should, with full force, pursue a policy of creating new industries. In this regard, Terashima, who has analyzed international political and economic trends for years, noted Japan currently has the potential technologies to lead the world in the 21st century.

## Hammer Out New “State Model”

**When looking at Japan's economic structure from a historical viewpoint, what are the problems?**

**Terashima:** Japan, a resource-poor country, has proceeded with a policy of efficiently procuring natural resources, exporting high-quality, value-added products to the rest of the world and earning foreign currency, thus becoming an affluent country. This model of a trading state was effective in growing Japan into an affluent country in a certain era. That state model worked so well at one stage that other countries pushed forward a policy of modeling after Japan under the slogan “Look East.” Looking ahead globally, meanwhile, the world is ushering in an era of “the virtual state” in which the quality and status of a state are determined by its capabilities to create invisible assets such as technology. Japan, however, has yet to hammer out a new state model in response to such a global change. I believe that's the biggest problem facing Japan. The trading state model followed the colonialism-based state model under which the decisive factor for evaluating the power of a state lay in its capabilities to boost production of resources through territorial expansion as typified by the British Empire. In the wake of the Industrial Revolution, having and reinforcing capabilities to make industrial products became the crucial factor for a successful state model. In the era of the virtual state, sources of value become invisible, as instanced by such assets as technology, software and service. The fact that Singapore is thriving despite its small land area and limited capabilities to turn out industrial products showcases what form a new state model should be.

**Japan is confronted with the challenge of transforming its export-dependent economic structure into a domestic demand-oriented one. In**

**light of the historical transition in state models, how should Japan push forward its economic transformation into a domestic demand-oriented one?**

**Terashima:** A review of the historical transition in state models highlights the need for Japan to not just produce goods for domestic consumption but also try to boost domestic demand with its capabilities to create invisible assets if it aims to transform its economic structure into a domestic demand-oriented one. With the population projected to decline in the years ahead, it does not make sense to call for expanding domestic demand merely based on ideas of conventional economic elements. No domestic demand-oriented economy could be realized unless domestic demand grew robustly backed by such invisible assets as systems, software and culture. The problem is that the phrase “export-oriented” conjures up images of such products as automobiles. When it comes to capabilities to produce goods, Japanese manufacturers are increasingly shifting their production bases to China and India. To prosper beyond the restraints of such economic elements as population and labor force, Japan must gain the upper hand with its overwhelming intellectual power, the clout to create invisible assets. Without having sophisticated views on what sort of state Japan should seek to be, it is impossible to transform into a domestic demand-oriented country. Such transformation cannot be achieved only through a shift of viewpoint within the framework of a manufacturing-oriented nation.

## Create New Industries Rather Than Stimulating Consumer Spending

**The Cabinet of Prime Minister Yukio Hatoyama is pushing ahead with a policy of directly providing benefits to the household sector through such**

**measures as child-rearing allowances, thereby stimulating personal consumption. This is based on the perception that the Japanese economy remains stagnant largely due to sluggish consumption. Will this policy prove fruitful?**

**Terashima:** Looking at Japan's structure of income distribution in the 21st century, the disposable income of workers' households decreased 7% in nine years from 2000, or 730,000 yen a year. In the meantime, the corporate sector accumulated internal reserves. To rectify the disparity in income distribution, the new administration is pursuing a policy of directly providing money to workers, who double as consumers, as a way of expanding consumption. It is not hard to understand why the administration is implementing such a policy, which stems from the perception that consumption does not grow without stimulating the household sector. However, the Japanese economy, made up of the household, corporate and public sectors, effectively works only when the three sectors combine to function well. Directly injecting money into households is not the right policy even though I understand the frame of mind on the part of the administration. The challenge the Hatoyama administration will inevitably face is not the frivolously expressed phrase of "growth strategy" but an industry start-up policy – what sorts of industrial sectors to be created and groomed. The economy does not gain vitality without formulating a mechanism that structurally supports stronger consumption. It is not the right policy to have households receive distributions from the government in temporary allowances. Under the Hatoyama administration, a future-oriented creative industrial policy has yet to come into view. In countries such as in Northern Europe where the economic theory of redistributing income for social benefits is in place, it may be natural for the government to foster children by distributing child-rearing allowances to households because children belong to society. But that is not the sort of policy Japan should pursue. The direct injection of funds into households should not be implemented as a sustained policy measure, though it may be acceptable as an emergency one. What the government should do immediately is to devote its full energies to creating and reinforcing new industries.

### **Switch to Viewpoint of Benefiting from Weakness**

**Specifically, in what areas should Japan pursue the policy of creating new industries?**

**Terashima:** The weakest point for Japan lies in its heavy dependence on imports for supply of resources. How should resource-poor, narrow Japan move out of the current reliance on imports for energy and food supply? In this respect, technology and added value become important. To understand what a change of viewpoint means, let me cite one example. Japan ranks 61st in the world in the national land area. However, it is the sixth largest country in the marine area, including its territorial waters and exclusive economic zone. Hence, Japan is a maritime power. According to a survey conducted by experts, as many as 11 seabed hydrothermal deposits looking like magma outburst openings have been located in waters around Japan. These deposits have the huge



*This "Terashima Library" owned by the author possesses some 25,000 books.*

potential to supply a variety of resources ranging from rare metals to energy. The question is how to deepen the potential at hand and put them to practical use by sophisticating seabed exploration and mining technologies. To answer this question, it is necessary to make up a game in which Japan considers how to overcome its weakness – dependence on imports for energy, resources and food – with its own technological potential. The game results in the creation of new industries. Such a shift of viewpoint becomes important. Exploration technology is closely related to space technology, and precision technology for positioning is indispensable to explore resources. Measurement errors can be reduced to centimeters by launching a quasi-zenith satellite. Without such technology, resource exploration remains ineffective. What is important for Japan is to hammer out a strategy for supplementing its weakness with its own technological potential.

**Another weak point is that Japan depends largely on imports for food because of its low self-sufficiency rate.**

**Terashima:** Japan's food self-sufficiency rate is currently at 41% on a calorie basis. Technology is also essential to improve the self-sufficiency rate. In the field of food as well, high technologies are necessary, particularly biotechnology for seed research, flash-freezing technology to keep food fresh and technology for efficient transportation. Currently, primary industry accounts for only 4% of Japan's working population, with the average age of its workers advancing steadily. For this reason, productivity in that sector will in no way improve even though the government provides subsidies to individual farming households and tries to protect them with high import tariffs. However, moves are growing – albeit gradually – toward fostering the agricultural sector as a system, like under a corporate farming system, establishing agriculture as a sector for division of labor and eventually restoring food production with state-of-the-art technologies. Japan's annual food exports have surpassed 500 billion yen but are still only less than a 10th of imports, which amount to 6 trillion yen. Over the next several years, however, such exports are expected to reach 1 trillion yen. Already, Japanese high-grade fruits and cooking ingredients are on sale at supermarkets in Hong Kong, Shanghai and elsewhere. Agriculture will develop into a full-fledged industry if it is infused with high technologies and competent human resources, using production and distribution companies as its platform of corporate farming.

Photo: Mitsubishi Aircraft Corp.



Artist's sketch of small passenger jet MRJ

## Aeronautics Seen Succeeding Autos As Key Industry

### What problems does the manufacturing sector face?

**Terashima:** It is of great significance to create a product cycle after an era of automobiles. If nothing is done, the auto industry then may turn out to be the last major industry for Japan. But the “core” auto industry itself is changing. Japanese automakers, along with their component suppliers, have relocated their production bases to China one after another. Automakers of all countries in the world have manufacturing plants in China today, boosting the country’s potential vehicle output capacity to more than 18 million units per annum. Even if China’s domestic vehicle sales expand to 13 million, more than five million vehicles are left unsold. This projection raises the question of what to do with China’s surplus auto production capacity – whether or not these surplus vehicles will flood international markets. The year 2010 marks a major turning point at which the Japanese auto industry faces the enormously big problem of how it is going to survive in the years ahead. In such circumstances, will Japan be considering a post-auto product cycle? The auto industry is important because it is a platform-type industry that has synergy effects on a broad range of sectors. Production of a completed car requires the integration of new materials, an engine, nanotechnology and IT. In other words, the supporting base of the auto industry is so vast that numerous people have been able to enjoy affluent lives in postwar Japan. The question is how the 120 million people in the Japanese archipelago should develop the next mainstay industry in the wake of the core auto industry’s exodus to China.

One solution to the question of how to nurture platform-type industries lies in the small passenger aircraft Mitsubishi Regional Jet (MRJ) (photo above) currently under development by Mitsubishi Aircraft Corp. The domestic manufacture of completed aircraft leads to the integration of Japanese technologies such as those of materials and engines. Later this year the fourth runway at Haneda airport (which is closer to central Tokyo than Narita International Airport) is set to be put to practical use, with more international flight slots opened up. What is most convenient for passengers at Haneda airport is not a daily flight by a jumbo jet but shuttle service by midsize jets between Tokyo and Seoul and other major Asian

cities. I used to be asked why Japan has not been able to make any passenger jet when it has sophisticated manufacturing technologies. My answer is that it is not that Japan has not been able to do so but that there were high marketing walls keeping Japanese players out. Japan has given up manufacturing aircraft because the global aircraft market has already been dominated by Boeing Co. of the United States and Airbus S.A.S. of Europe, leaving little room for Japanese firms to make inroads. With the advent of an era of great movement within the intra-Asia region, however, the aircraft market has begun to change. Many foreign visitors to Japan are from Asian countries. Furthermore, Asian countries will far exceed the United States as destinations for Japanese travelers in the near future. Close interchanges with Asian countries are thus becoming potential (sources of air-related businesses) for Japan, and will be supported by upgraded airport infrastructure and domestic production of midsize passenger jets. These factors, if combined adequately, promise steady headway in the MRJ project.

## Japan No Country of Frail Money Games

**Pessimism is growing in Japan with regard to the future. There is increasing anxiety about a contraction in its own market in view of the declining birthrate and the graying population.**

**Terashima:** The problem of fewer children and the aging population, when looked at from a different angle, reminds us that Japan has high technology that is applicable to solution-type robots for use in nursing care and other welfare services. Technology is the very foundation and the path through which Japan should move forward. As a country that has devoted itself to manufacturing in real earnest, Japan has amassed technologies as a result. From now, the fate of Japan hinges largely on its capabilities to integrate and consolidate technologies. The Japanese people have lost self-confidence to an excessive degree. But when you come to yourself, you will know that the current situation is just the contrary. While the world has been undergoing a structural transformation in the aftermath of the collapse of economic money games, I feel that the reputation of Japan for its potentialities is gradually gaining ground. This is because Japan is not a country preoccupied with playing the market but one having, as its potentialities, strong corporate and other brand power that is underpinned by its technologies. In the field of information and communication technology (ICT), for instance, Japan’s digital TV format has been adopted by some South American countries such as Brazil and Colombia. This is an indication that the reputation of Japanese technology is mounting steadily.

**Japanese business circles seem to have a phobic mentality about the yen’s appreciation.**

**Terashima:** There is the widespread perception that a strong yen is a life-threatening factor for export-oriented Japan. But the situation is just the opposite. Currently, we are not in a dire situation where our currency is debauched and we can buy nothing even for 10,000 yen. The yen’s appreciation against other major currencies should be taken to indicate the time has come that we can buy for 90 yen a product that used to be priced at 360



yen. The problem lies in Japan's failure to strategically cash in on its mounting purchasing power. The perception that Japan is an export-oriented country is so deeply ingrained that everything unfavorable for exports is regarded as unfavorable for Japan in general. What is extremely important is to have the viewpoint of strategically making use of the yen's appreciation. In the absence of such conceptual power, everything looks tragic. The strong yen has provided Japan with enormous opportunities that can be exploited if appropriate policy measures are carried out. I am sometimes perplexed about how to answer questions while staying abroad such as this: "What steps will Japan take next now that the yen has become so high?" I am willing to express my personal views, but the current situation does not allow me to clarify the government's policy with confidence.

### **Measures to tackle global warming, too, are believed to have potentialities in creating new industries.**

**Terashima:** Environmental technology represents Japan's very potential. In this regard, coal deserves attention, for example. Among fossil fuels, coal has a bad reputation on the grounds it is not friendly to the environment as it discharges a large amount of CO<sub>2</sub> when burned. But Japan has a significantly high level of clean coal technology aimed at reducing the environmental impact of coal-based energy generation. This sort of technology is extremely effective in providing a solution to such countries as India where coal accounts for more than 50% of power generation. Also noticeable are water-related technologies in which Japan is one of the world's top countries, such as those for recycling water and desalinating seawater. Insufficient supply of water resources is said to be a major bottleneck for the further development of China. Opportunities for offering Japanese technologies are steadily growing worldwide. The harder the United States tries to push forward its "Green New Deal" policy on the initiative of President Barack Obama, the greater the need will be for a cluster of Japanese technologies such as solar panels, metals for propellers in wind power generation systems and new materials. Environmental technology is the area where Japan can take advantage of its technological prowess.

### **Base Diplomacy on Pro-US Stance & Closer Ties with Asian Neighbors**

#### **What do you think Prime Minister Hatoyama's vision of an East Asian Community means for Japan?**

**Terashima:** Since the end of World War II, Japan has built up certain levels of relationship of trust with Southeast Asian countries. On the other hand, there still remains a latent sense of distrust between Japan and its key immediate neighbors – China and South Korea. The phrase "East Asian Community" becomes significant as a "nonbinding goal" to dispel such distrust and build up a bond of trust. Needless to say, you cannot expect to create a community similar to the European Union (EU) all of a sudden. But the EU itself started out as a proposal for dispelling mutual distrust. To control distrust between Germany and France, the European Coal and Steel Community (ECSC) was created (in 1952), and has

developed step by step into the present EU. Likewise, it does not make sense to say there is no mutual distrust in East Asia. Actually, in Japan there are concerns about China's ever-increasing presence. That is why it becomes even more important for the two countries to come out with "nonbinding goals" toward which they should always work together. For instance, they can seek to expand cooperative efforts such as the Chiang Mai Initiative launched to forestall a currency crisis. In the environmental area, it is also meaningful to create an atomic energy community similar to the EU's European Atomic Energy Community (EAEC) as part of efforts to dispel mutual distrust with respect to nuclear power. On the academic front, Japan is set to conclude agreements for mutual recognition of college and university credits with China and other Asian countries. This is expected to help boost exchanges of students even more. In other words, Japan should seek to steadily build up what is commonly regarded as meaningful for both Japan and its Asian partners under the so-called successive approximation method, thereby overcoming mutual distrust.

#### **Wouldn't Japan's greater commitment to Asia shake the Japan-US alliance?**

**Terashima:** What Japan needs to proceed with gradually from now is to let itself off the hook by lessening its excessive dependence and expectation on the United States. On the economic front, the ratio of Japan's trade with the United States to its global total fell below 14% in 2009. On the other hand, the ratios of its trade with China and Asia as a whole surpassed 20% and closed in on 50%, respectively. Japan's interdependent relations with Asian countries will deepen even further in the areas of economic relations, logistics and human movement. In all aspects, it is important for Japan to place priority on relations with the United States while at the same time building up multilayer relations with its Asian neighbors. This is what I call *shinbei-nyua*, maintaining the pro-US policy while seeking closer ties with the rest of Asia. Japan should gradually lessen its overdependence on the United States to make its position more stable. That is the roadmap Japan should pursue. Japan-US relations are actually not so stable as widely believed. The structure of the current Japan-US relations is distorted, with too much emphasis placed on the military aspect. In the economic sphere, there is no bilateral agreement that ensures stability in ties between the two countries. Unlike relations between South Korea and the United States, there is no free-trade agreement (FTA), either, between Tokyo and Washington. The Japanese and US economies have matured enough, so it looks only natural for the two countries to conclude an FTA. But they have neither an economic partnership agreement (EPA) nor an FTA. Japan should strive to deepen economic ties with the United States, while at the same time seeking to have the excessively tight bilateral military and security alliance fit in gradually with the realities of the global political climate in the 21st century. I think this is the right position Japan should take. It is important for Japan to seek a mature, flexible relationship with the United States rather than sticking to the realization of an equal one. **JS**

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