

Challenges and Prospects for Economic and Industrial Policy in the 21st Century

– Building a Competitive, Participatory Society – (The Industrial Structure Council's Report)

By Hattori Keiji

Summary

– Faced with worldwide market integration and a rapidly graying society, Japan's sustained development will hinge on Japan becoming a competitive, participatory society. The socio-economic system based on self-sufficient units which has underpinned Japan's development for the last half-century should be replaced by a more open, interconnected structure.

– To achieve this objective, future economic and industrial policy must perform a coordinating function, developing various basic conditions necessary to promote a major encounter between supply and demand.

– More specifically, the competitiveness of the economic system must be constantly strengthened, primarily through technological innovation. As a forerunner in terms of the aging of society, Japan also needs to create institutionally wide-ranging opportunities for jobs and social participation to realize the values, exploit the diverse abilities, and achieve the potential of each member of society, the elderly included, throughout a life-time of dreams and incentive.

– Such a transformation will respond to the challenges of the 21st century, most of which are shared by nations around the globe, by linking supply and demand elements into a new virtuous circle.

Chapter I: Introduction – Leading the Way into the 21st Century

While Japan has achieved a remarkable degree of economic development over the last 50 years, that momentum has ground to a halt at the turn of the century, with the country oppressed by

a sense of opaqueness and preclusion in regard to the future. What has happened is that the socio-economic system which has functioned effectively to date has lost its validity in the face of the changing prerequisites on which the world operates, but no vision has emerged to orient a new paradigm.

While the new era will present a variety of challenges, given the proven ability of the Japanese people to adopt and adapt, this should be viewed as an opportunity to develop new yet quintessentially Japanese systems. We should not wait for the market or other countries to bring the new era to us; rather, we need to draw our own blueprint for the future and approach this through a process of endeavor, creating, as it were, our own self-portrait.

Our current task is to sketch a vision for sustained development for the next quarter-century based on a virtuous cycle of supply and demand, and to lay out concrete measures for achieving that vision, encouraging national debate to this end.

Chapter II: A New Era and New Choices

(1) Global market integration and a multi-dimensional, multi-layered international system

Markets are becoming increasingly integrated worldwide, intensifying competition among companies and among countries' respective systems. The international system is moving away from a uni-polar focus on the United States to become far more multi-dimensional and multi-layered, with the intricate balance of the interests of major powers and other regions serving to support a new international economic order. Asia will regain its position as a world economic growth center and further deepen its interdependence and synergy with Japan, lend-

ing weight to the regional economy as a unit. The challenge in this context will be for Japan to display initiative in developing a new economic order.

(2) Increasingly marked global-scale problems

Global warming and other environmental constraints will grow more severe. The COP3 agreement will need to be recognized as a temporary transit point. Oil supply will become increasingly shaky, particularly in Asia, raising the possibility of another oil crisis. Tightening environmental and energy constraints in Asia and elsewhere will have to be dealt with.

(3) Early graying for Japan

Japanese society will age rapidly, outstripping the rest of the world. After 2004, the population will decrease by around 10 million, with approximately a third of society aged 65 years or older. The world age pyramid will become increasingly inverted in the 21st century as other countries too begin to age. The major challenges presented by the new era will be intergenerational income distribution through, for example, social security, and the optimal exploitation and utilization of the abilities, knowledge, experience and purchasing power of each individual, including senior citizens and women, as well as development of the conditions necessary to achieve this.

(4) Major technological innovations transforming the socio-economy

Information technology will permeate all sectors, dissolving borders and both diffusing and centralizing functions. These and other qualitative changes such as the crumbling of existing organizations and diversifying affiliations will occur at all levels, including nations, societies, companies and

individuals. Technological innovation in biotechnology, energy, the environment and materials will advance dynamically in a process of mutual stimulation and fusion. The major challenges will be the strategic promotion of the technological innovations which are the wellspring of economic growth, and the development of social applications for these innovations.

(5) Transition to sustained growth

The sluggish growth of the 1990s should be viewed as reflecting structural changes spurred by changes in the conditions which underpinned Japan's strong post-war economic growth. Without reform, Japan will face long-term negative growth, declining disposable income and a national burden of some 60 percent, increasing the sense of preclusion and overloading the next generation. Japan must reform its cur-

rent socio-economic system, which is premised on swift economic growth, and instead seek the foundations for sustained growth.

Chapter III: Vision for a New Age

(1) Future vision for the macroeconomy – Sustainable economy achieved through small government and technological innovation rents

Sustainable economic growth will be vital in maintaining and increasing national vitality, reducing the burden on future generations and fulfilling Japan's obligations to the international community. The challenge for Japan will be to institute various reforms to restore the fiscal primary balance and boost disposable income while constraining the national burden to 50 percent, achieving real growth of around two percent.

Japan's economic growth has not been heavily influenced by quantitative fluctuations in the labor force. This would suggest that despite the expected decline in labor population, technological innovation and informatization, as well as the reform of the socio-economic system, could bring two-percent growth within reach. Compensating for labor shortfalls by importing unskilled labor would be precipitate; rather, Japan needs to boost productivity through greater international specialization and a remodeled industrial structure. Even where the government effects fiscal structural reform through reduction in public investment, adapting the industrial structure to respond to the needs of an aging society will open the way for domestic-demand-led expansion of production and employment, regional areas included.

Chart 1 Outlook for Expanding Markets amid New Era (Note 1)

	Current State	Year 2025	Average annual growth rate	Growing Industries
Thirdware Industry (Note 2)	About 5 trillion yen	About 28 trillion yen	6%	<ul style="list-style-type: none"> Information-related home appliances fitted for networking, digitalization Robots designed as units of systems Automobiles with ITS and other information services added
Frontier Industry	About 5 trillion yen	About 15 trillion yen	4%	<ul style="list-style-type: none"> Ocean (Marine space utilization, marine resources development, etc.) Aero space (environment-friendly supersonic aircraft, communications and broadcast satellites, commercial rockets, etc.)
Aging Society Industry	About 39 trillion yen	112~155 trillion yen	4%~5%	<ul style="list-style-type: none"> Industries that respond to diversified needs of the elderly (leisure, housekeeping agencies, security control, barrier-free houses, etc.) Health/Medical treatment (health securing, prevention of illnesses, home medical treatment, genetic diagnosis, etc.) Welfare/Care (home care business, etc.)
Environment Industry	About 15 trillion yen	About 60 trillion yen	5%	<ul style="list-style-type: none"> Environment creation/Environment restoration (tree-planting in urban areas, environmental auditing, etc.) Environmental protection/Antipollution (LCA assessment, ISO, conformity assessment, CO2 solidification, equipment to prevent air and water pollution, etc.) Recycle (systematization of recycle, disposal of waste, etc.)
Fashion and entertainment Industry	About 31 trillion yen	About 49~73 trillion yen	2%~3%	<ul style="list-style-type: none"> Content area (video games, animation, movies, music, etc.) Fashion area (fashion design, interior design, etc.) Leisure area (sports, sightseeing, etc.)

Note 1 : These estimates are not targets but projections as of today that have been calculated through comprehensive analyses on the basis of various statistics, industrial developments and other information. Therefore, these estimate figures should be interpreted with wide margins. Moreover, duplications should be considered concerning the market scale of each industry.

Note 2 : Considering duplications with other industrial sectors, this report projected the market scale of information-related home appliances alone.

(2) *Future vision for industry – “third-ware” industry built on Japan’s strengths, new industries emerged in response to expanding demand*

While Japanese economic development has been supported by a manufacturing platform, with Asia initiating an escalating course of price cuts and oversupply, particularly for mass-produced goods, Japan will no longer be able to pin its competitiveness on technological improvement-based cost-cutting. We will need to build on our strengths to date to create a robust industrial structure backed by substantial added value, drawing creative rents from sources such as innovative technology. Further, in light of the growing weight of the service industry and the transformation of services into tradables, Japan will also need to boost the productivity of the service industry.

Amid increasing informatization, Japan’s manufacturing industry will retain an advantage only by exploiting its inherent strengths through the creation of “third-ware,” a fusion of hardware and software, and by opening up new frontiers such as aerospace. The changing times will also expand the market for industries responding to social needs in areas such as aging, the environment, and fashion and entertainment. International specialization with Asia will be possible in these industries, and because they respond to needs shared worldwide, Japan should also be able to expect rents from world markets. (Chart 1)

(3) *Creating a new Japanese system – from self-sufficient circles to more open, interconnected structures*

The socio-economic system which supported Japan’s economic development throughout the post-war period comprised a succession of self-sufficient circles, with each organization securing its own resources – technology, information and human resources, for example – handling evaluations in-house, and absorbing risk independently. Growing competitiveness based on technological improvement and greater production efficiency, as well as the confidence in future development creat-

ed by a company-based society and swift growth, formed a virtuous circle of supply and demand elements and produced an equitable and stable society.

However, entering a new age, the existing system is beginning to malfunction, and needs to be replaced with a new system adapted to the times. Such a system must be more open and more interconnected – in other words, opportunities, information, evaluation and other elements must be opened out, while elements such as costs and risks are shared and minimized across society as a whole. This new Japanese system will emphasize sustainable growth, participation by senior citizens, and harmony with the environment, while the former two-dimensional public-private social structure will gain the extra dimension of Non-Profit Organizations (NPOs).

(4) *Vision of the socio-economy – independent individuals and a lean, effective state*

The socio-economy produced by this new system will comprise, on the one hand, independent individuals with a strong sense of self who are also sympathetic toward others and understand public values, and on the other, a lean, effective state which provides the basic conditions for self-realization, and in which individuals and companies work actively on value creation, engaging on their own initiative, for example, in the development of economic security, safety-nets, and an international economic order. The new socio-economy will constantly rejuvenate, providing for diverse choices and ways of life, and will applaud market challengers, allowing fair disparities.

(5) *New benchmarks – greater creativity, more opportunities, greater affluence*

Benchmarks for judging the socio-economy of the new century will include: (i) the expansion of competitive intellectual assets, tipping the ratio between exports and imports of intellectual assets; (ii) the expansion of diverse job opportunities and opportu-

nities for social participation, raising social participation rates for women and the elderly; and (iii) the realization of more materially and spiritually affluent lifestyles through the enhancement of living spaces and greater harmony with the environment. Japan should seek to rank first in the world in all these categories.

Chapter IV: Economic and Industrial Policy – Development of a Competitive, Participatory Society

(1) *Basic principles of economic and industrial policy*

The perennial challenge for economic and industrial policy is to expand national wealth through the construction of robust development foundations. To adapt to the new age, Japan should aim to create a virtuous circle for the 21st-century-style socio-economy and to hand down to the new generation the foundations for sustained development.

To respond to increasing worldwide market integration and the emergence of the Asian nations on the international stage, Japan must maintain and develop a competitive supply platform led by creative technological innovation and corporate start-ups. Further, to meet growing demand for the realization of diverse individual values, as well as the challenges presented by inversion of the age pyramid, wide-ranging opportunities need to be created in terms of participation in the labor force and society, allowing each individual, senior citizens included, to explore their respective dreams and abilities. Japan’s specific goal, therefore, will be the creation of a competitive, participatory society.

The challenges of the new age require that economic and industrial policy develop the various basic conditions necessary to promote a major encounter between supply and demand, performing a coordinating function. In other words, it will become increasingly important to uncover the various forms of potential demand and to strengthen the supply platform necessary in responding appropriately to this.

Chart 2 Virtuous circle for the 21st-century-style socio-economy



(2) Basic axis for economic and industrial policy – development of a more competitive economic system and a participatory society

To build a more open and interconnected socio-economic system, Japan must look beyond industrial competitiveness to enhancing the competitiveness of the economic system as a whole. This goal, together with the formation of a participatory society in which each member of society can achieve life-long self-realization based on a diverse range of available choices and ways of living, should be established as Japan's policy axis for the next quarter-century.

A self-disciplined and sustainable economy is only possible where there is a virtuous circle of supply and demand. The current breakdown of a company-centered society has left the public facing the future uneasily in a defensive, pull-back mode in terms of their daily lives and consumption. Demand has slumped accordingly, cutting the cyclical links between supply and demand.

Japan needs to build a 21st-century style socio-economy sustained by a virtuous circle of supply and demand suited to a new age through the formation of a participatory society. Such a society will induce vigorous activity, a sense of satisfaction and high hopes for the future among all its members, phenomena which will operate in tandem

with the re-engineering of robust safety-nets (social security, for example) to create solid demand at a variety of levels, creating the above-mentioned virtuous circle. In developing policy, it will be vital to consider not only conventional supply-side challenges, namely enhanced competitiveness, but also to widen the policy perspective to embrace the socio-economic system as a whole, the demand side included. (Chart 2)

(3) Orientation of policy design and operation

In light of the changes expected to occur in the global and domestic environment, the orientation of policy design and operation should be toward: (1) basing policy on constant dialogue with the public; (2) integrating domestic and international policy; (3) introducing more integrated and flexible macro- and microeconomic policy; (4) promoting joint policy development among the relevant ministries; and (5) expanding policy scope to include individual companies, NPOs and individuals.

Chapter V: Policy Development in the Future

1. Strengthening the competitiveness of the economic system

(1) Designing an economic system and rules adapted to international competition – people-centered initiative with a human face

Amid worldwide market integration, international competition among systems is already a reality. To meet this challenge, Japan needs to engage in economic structural reform and constant examination and improvement of the economic system as a whole with a view to enhancing competitiveness. Rather than the traditional emphasis on money and goods, it will be vital to display more people-centered initiative in the operation and formation of the international economic order. Japan particularly needs to participate more actively in the secretariats of the various international organizations – key planners and information sources – by assigning public and private-sector personnel to these. Given the anticipated destabilization of the oil supply over the medium to long-term, Japan's energy policy net needs to be thrown more widely, not only ensuring a stable energy supply for Japan alone, but also establishing cooperation with the oil-producing nations and the Asian countries. Among fossil fuels, natural gas should be given particular priority.

(2) Vitalization of frontier – opening technological innovation – government initiative and wider opportunities for foreign researchers

A catch-up policy based on technological improvement is a thing of the past; Japan now needs to create its own unique technology by shifting to an open and interconnected innovation system. Strategic areas must be identified (aging and the environment, for example), and resources channeled into these, including competitive research funding comparable with U.S. levels (0.3 percent of GDP). The necessary mechanisms and budget should also be set in place toward the establishment of an evaluation system, and for technological governance by the people. Active appointment of foreign researchers will be particularly important in stimulating research institutions, and a full review should be undertaken of immigration policy, including introduction of a permanent residence scheme like that of the U.S.

(3) Strategic use of informatization – rule development

The evolution of informatization, while reducing not only the walls between states and existing groups and organizations but also personal contact, will also provide the momentum for socio-economic development and reform. At the same time, an information society also embraces the risk of chaos. It will be vital to develop the necessary foundations for the positive use of the harvest reaped from informatization, to cater for the digitally illiterate, to establish rules covering, for example, e-Commerce and certification for global and borderless cyberspace, and to develop mechanisms for crisis management and the protection of individual privacy.

(4) Front-running development of an environment friendly socio-economy –

presenting a model for the world (top recycling levels, etc.)

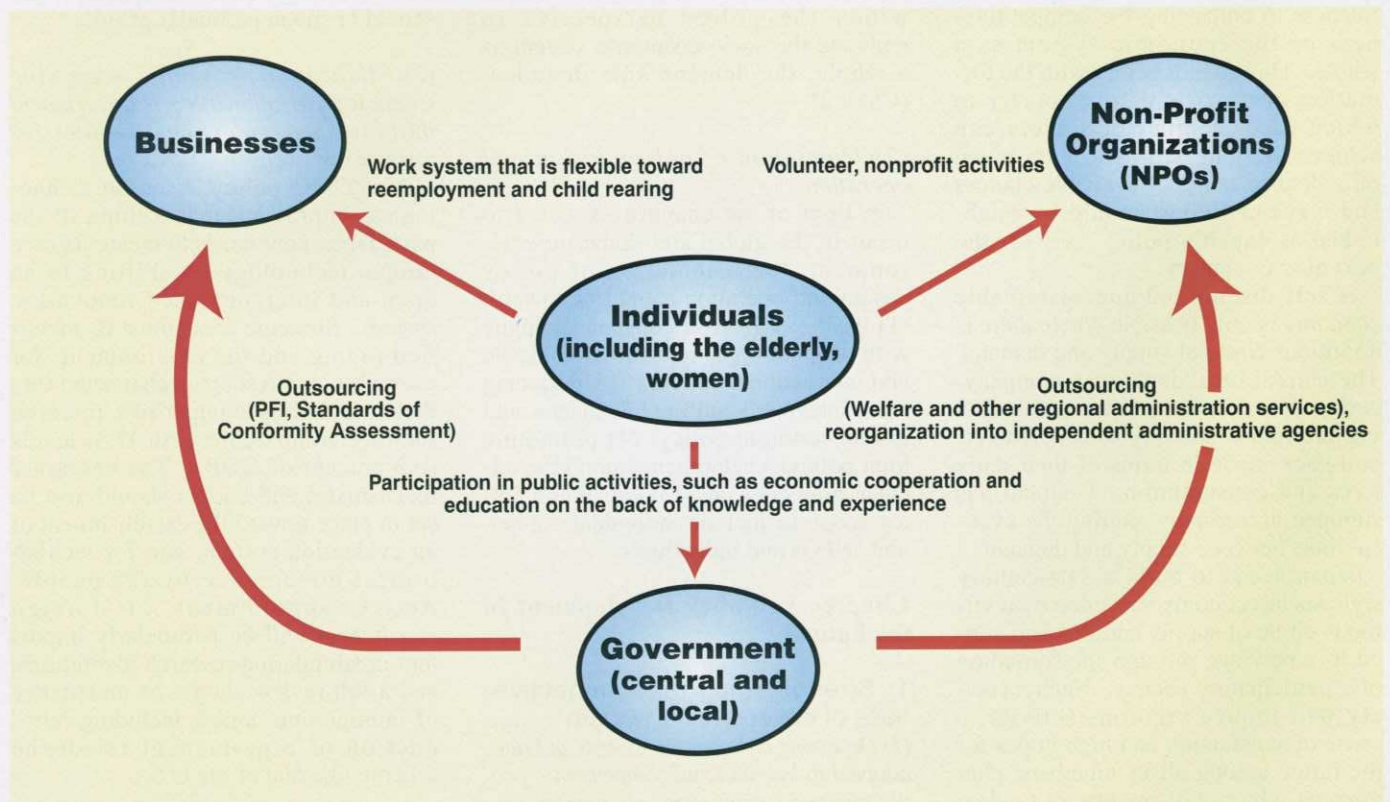
Japan has a stockpile of energy-saving technology, materials technology and the various other necessary environmental technologies, as well as the industrial platform for commercializing those technologies, with the potential to lead the world in developing an environment friendly socio-economy. In the century ahead, Japan will provide models solving global problems while retaining economic competitiveness. Tasks facing Japan include: construction of an energy supply structure with low CO2 emission levels; establishment of the world's highest recycling targets and development of the necessary mechanisms toward a "closed-loop" socio-economy; promotion of the commercialization of "green" goods and services through certification systems; and international environment-

related cooperation, including the strategic use of ODA in the environmental sector without waiting for requests.

(5) Further integration of the Asian economy – integrated domestic and foreign policy

Asia and Japan will become further integrated, creating an Asian economic unit. Recognizing that growth bottlenecks for Asia will also be bottlenecks for Japan, it will be important to develop greater integration between domestic and foreign policy. Japan should promote the liberalization of regional trade and investment, the harmonization of intra-regional systems, and the development of the various necessary economic systems, as well as more actively taking in foreign researchers and students and moving ahead in this direction by deepening comprehensive

Chart 3 Image of participatory society



economic ties first with countries such as the Republic of Korea and Singapore. As the Asian economic development process is expected to meet with growing energy and environmental constraints in the years to come, Japan should play an active role in developing safer nuclear technology and energy infrastructure, as well as in improving the environment of megacities.

2. Formation of a Participatory Society

(1) Broad-ranging provision of diverse opportunities for work and social participation – designing a social system with NPO and senior citizen participation

As the first nation to experience the full-fledged aging of society, the social systems which Japan designs will attract world attention, and will also transmit Japanese values to the world. Establishment of the foundations for sustained development will pivot on taking advantage of the knowledge, experience and purchasing power of the older generation, who will account for the bulk of the Japanese population. Japan will need to build a society of life-long self-realization, affording each individual (the elderly included) with diverse opportunities and a *raison d'être*. Tasks will include: introduction of an employment system oriented toward participation by senior citizens, based on more flexible wages and working conditions (a re-employment system); participation in public sector areas of activity (senior ODA, education, etc.), as well as the pro-active expansion of outsourcing of such work (welfare, certification, PFI, etc.); and development of the necessary conditions for NPO activities, through such measures as local "currencies" for the accumulation and exchange of voluntary individual contributions. (Chart 3)

(2) Human resources development toward greater creativity, expertise and internationalism – growing variety of staff in schools and daily contact with other cultures

Human resources will be Japan's sole

resource in the coming century, and must therefore be of the very highest quality. Japan will need to cultivate basic scholastic abilities such as mathematics and science, communication skills, and diverse and high-level expertise, also increasing acceptance of other cultures. This will require the participation of numerous outside private-sector personnel in educational institutions from the elementary level up; improved administration and guidance of university students; the large-scale development of graduate-level experts; and the active admittance of foreign students by educational institutions, as well as their employment by companies and appointment at management level in local branches. Given the status of English as the international lingua franca, it will be vital to fully launch spoken English education by foreign teachers from the elementary level, as well as to improve mechanisms for supporting the children of employees of foreign affiliates who are seconded to Japan.

(3) Formation of attractive local communities – independent local communities supported by local residents

The aging of society is proceeding rapidly in local communities, while regional development reliant on external resources has already reached its limits. Accordingly, the distribution of burdens and benefits needs to be clarified, diverse participation by local residents and NPOs in administrative services encouraged, and local communities made more independent. Important challenges for endogenous, independent development will include: improvement of the independent fiscal resources of local governments; a sweeping review of existing administrative divisions in line with changes in living and economic zones; adaptation of industrial structures to respond to the aging of society; and coordination among local regions and cities, particularly key cities, making use of informatization.

(4) Dealing with a low birth rate – child-raising to be shared by society as a whole

The low birth rate should be regarded as adjustable over the long-run and within Japan's response capacity. As child-raising is effectively a national investment in the future, immediate steps should be taken to ensure that the burden it imposes is shared by society as a whole. To eliminate the M-curve, flexible wage structures and working conditions will need to be introduced to secure the necessary child-raising time, such as flextime and work-sharing among child-raisers. Private-sector participation should also be encouraged to improve child-raising support, a come-back employment system introduced to avoid opportunity cost, and measures improved for reducing the economic burden of child-raising, with both public- and private-sector contributions to child-raising bolstered.

(5) Establishment of a robust safety-net and support for market re-entry – establishment of a social security system dispelling uncertainty over the future, and a higher evaluation of challenges

The key to a robust safety-net will be the establishment of a sustainable social security system which allows a total picture on which the public can rely in their life-planning. Re-designing the current social system is a priority in terms of dispelling uncertainty over the future. Realization of a constantly rejuvenating society will hinge on offering higher evaluations of challenges while also allowing for fair disparities, ensuring the appropriate placement of human resources throughout society. It will be important to review seniority systems, relax labor-related laws such as the Worker Dispatching Law, and introduce vouchers to provide support for personal capacity-building and facilitate smooth market re-entry.

IIJTI

Hattori Keiji is the assistant director at the Policy Planning Office, Minister's Secretariat, Ministry of International Trade and Industry.