

JAPAN ECONOMIC CURRENTS

A COMMENTARY ON ECONOMIC AND BUSINESS TRENDS

Asia's Division of Labor and Japanese Corporate Strategy

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The operations of companies in Asia have been profoundly affected by the financial crisis in the United States, the high price of oil, and the deceleration of the Chinese economy, and economic growth seems to be entering a leveling-off period. Even so, many agree that the recent developments are likely to have only a limited impact on economic growth in Asia. From the microeconomic viewpoint, moreover, this is rather the ideal time for companies to implement reforms.

When viewing the long-term trends in the financial performance of Japanese corporations, one can observe a series of turning points. Major recessions occurred on a number of occasions in the past, such as following the Plaza Accord of 1985 (which set off the yen's climb), the yen's sharp rise in 1995, and the financial crisis before and after 2000. On each occasion, the profitability of Japan's businesses suffered. However, the measures corporate executives took at these times contributed to business upturns thereafter. The last several years seem to have been another such time of upturn.

From what perspective should companies promote reforms? A variety of problems need to be tackled, including the need to look beyond short-term structural change to build an operational setup that can take full advantage of the opportunities presented by the growth potential in China and other parts of Asia. Of course, there must be no slacking off on innovation at home. But there is a high likelihood that chances for strong growth henceforth will come to Japanese companies from emerging markets, notably the Chinese and other Asian markets. Moreover, the shape of the industrial structure at home is likely to be determined by the kinds of operations Japanese firms conduct in these regions. In this light, we may say the time has come for firms to review their growth strategies from the long-term perspective.

International management trends in recent years

Let us ascertain the trends in the overseas operations of Japanese companies in recent years through statistical analysis. A glance at the

long-term trends in foreign direct investment shows that 1985 marked the start of the full-fledged globalization of Japanese corporations. Amid concerns about the yen's rise over the long term and continuing trade friction, firms shifted course from their traditional business strategy, which centered on exports, and boosted their direct investments to step up overseas production. During the 1990s they engaged in a major shift of production activities into Asian countries, recognizing that they would have to allow the domestic industrial base to be hollowed out to some extent. Around the middle of the decade China emerged as the main destination of their investment, which swiftly expanded.

Compared with multinational corporations in the West, Japan's corporations did not initially acquire much experience in internationalization during the period

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after World War II. It was only over the last 15 years that they entered an era of building up an overseas operational base. At first, there were many challenges they had to address. According to the Basic Survey of Overseas Business Activities of the Ministry of Economy, Trade, and Industry, the average recurring profit rate of overseas affiliates in fiscal 1996 (April 1996 to March 1997) stood at only 2.5% in manufacturing and 1.2% in nonmanufacturing. Executives at the time had their hands full just setting up and expanding operational bases, leaving them unable to devote attention to enhancing the profitability of their overseas affiliates.

This situation has been improving rapidly since 2000. Average recurring profit rates of overseas affiliates reached 4.5% in manufacturing and 3.8% in nonmanufacturing in fiscal 2005. We may say that Japanese corporations managed to significantly improve the profitability of their overseas operations over the past 10 years. Manufacturing led the way in this profit improvement. The sales of overseas affiliates are now ¥87 trillion in manufacturing and ¥97 trillion in nonmanufacturing, while sales of the parent companies amount to ¥198 trillion in manufacturing and ¥167 in nonmanufacturing. However, these

parent company totals include exports worth ¥51 trillion in manufacturing and ¥13 trillion in nonmanufacturing. Taking exports into account, we find that their sales in manufacturing come to ¥147 trillion in Japan and ¥138 trillion overseas, while sales in nonmanufacturing come to ¥154 trillion in Japan and ¥110 trillion overseas. In the case of manufacturing, overseas sales have reached a scale close to domestic sales, meaning that the overseas operations have expanded to become one of the profit-earning pillars today.

Comparative advantage of overseas activities

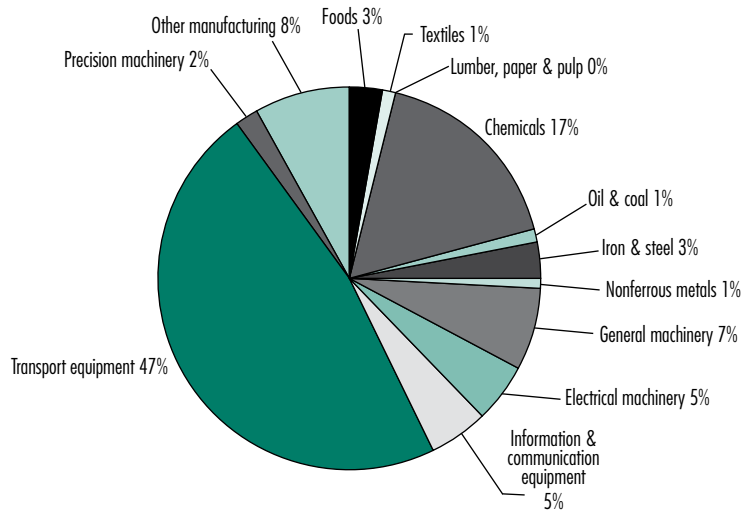
Which, then, are the areas in which overseas operations have an advantage in competition? The two charts show overseas manufacturing affiliates' shares of sales and profits by business category (broken down into the major groups of the Japan Standard Industrial Classification). Looking at sales shares, we find that 41% of all overseas sales come in the transport equipment category, followed by 21% for information and communication equipment, 8% for chemicals, and 6% each for electrical machinery and general machinery. In the case of profits, transport equipment contributes 47%, chemicals 17%, general

machinery 7%, and information and communication equipment and electrical machinery 5% each.

In terms of both sales and profits, automakers have a prominent place in the overseas activities of Japanese manufacturers. (Indeed, the auto industry at present accounts for close to half of these activities.) One feature of the industry is that overseas profit shares have grown higher than sales shares in recent years. The information and communication equipment category, by contrast, accounts for a fairly large share of sales but a relatively small share of profits. Electrical machinery and general machinery have 5%–7% shares of both sales and profits. Chemicals have a large 17% share of profits against a modest 8% share of sales.

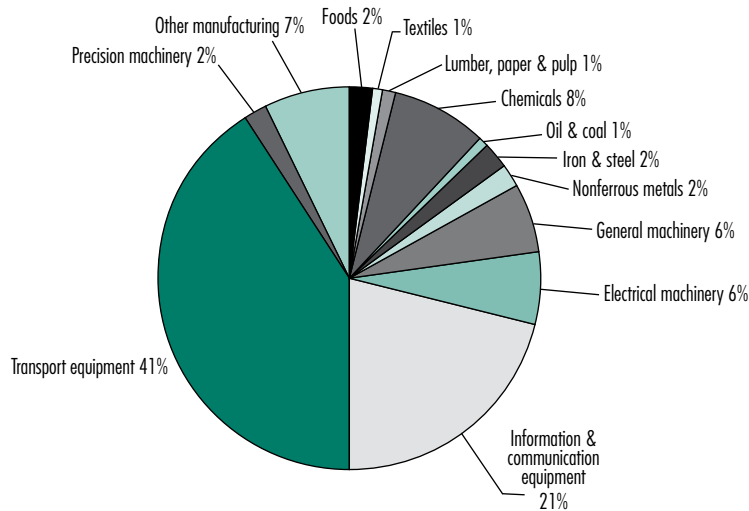
These statistics tell us which Japanese companies have been able to build up true international competitive power in their overseas operations. The auto industry has a weighty presence, and its profit base is reliable. Information and communication equipment is an area where industry trends propelled companies' globalization but where establishing profitability has proved to be very difficult. Operations are becoming more international, but

Figure A. Shares of profits



Source: Ministry of Economy, Trade, and Industry, Basic Survey of Overseas Business Activities.

Figure B. Shares of sales



Source: Ministry of Economy, Trade, and Industry, Basic Survey of Overseas Business Activities.

system when this system is developed and put into production, a high level of coordination is requisite even at the level of the product's parts. The auto industry is a representative example. A "modular" industry, by contrast, standardizes the interfaces between the parts of the product system, and each part can be designed independently of the overall product. A typical example is the personal computer industry.

Architecture, technological knowledge, and competitive advantage

Comparative advantage in overseas business activities is strongly influenced by the architectural characteristics and technological knowledge characteristics inherent to an industry and, as a result, the way the industry deploys overseas operations. In the 1993 article "Knowledge of the Firm and the Evolutionary Theory of the Multinational Corporation," Bruce Kogut at the University of Pennsylvania and Udo Zander at the Stockholm School of Economics examined the relationship between the knowledge characteristics of technology to be transferred and the approach taken in technology transfer.

whether the firms involved have gained a competitive edge remains doubtful. The chemical industry has a highly competitive domestic base, and it also has successfully built up profits in overseas operations.

This analysis of the composition of overseas manufacturing affiliates shows us where comparative advantage lies in their operations.

Autos and chemicals are two fields where businesses in Japan have "integral" (integrated) organizational capabilities, and they also enjoy an advantage in their overseas activities. By contrast, businesses are facing harder going in industries where product architecture has evolved in the "modular" direction. Here, an "integral" industry is one in which, in order to optimize the overall product

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They employed three measures to classify technological knowledge: codifiability, teachability, and complexity. They postulate that in cases where the knowledge involved in technology transfer can be relatively easily codified and taught, and when its complexity is low, it becomes possible to transfer the technology at a low cost and to take advantage of externalities and the public-good character of the knowledge. In such cases there are good prospects for selecting an open, broad approach to technology transfer, making use of licensing or a joint venture in which the company has only a minority stake. On the other hand, in the case where the technology is not easily codified or teachable and is complex in nature, the costs of technology transfer move up. In this case, they suggest, the company will be inclined to hold on to technological knowledge, using the difficulty of imitating it as a source of competitive advantage, and pass it on only to wholly owned local subsidiaries.

This hypothesis can be applied to the foregoing discussion of architecture. That is, with a product system employing modular architecture, codifiability and teachability are both high. Design efforts are made to remove complexity within the system as much as possible. In an industry with such technological characteristics, technology transfer can move forward broadly through alliances and licenses. Indeed, the key to a competitive edge in this case depends on how widely technology can be transferred, utilizing these technological characteristics. We may say that just such relations have been formed between the United States and Taiwan in the fields of personal computers and central processing units.

With a product based on integral architecture, by contrast, the technological knowledge to be transferred is not easily codified or taught from the start. It is complex

knowledge. When transferring such technology overseas, there is a need for the parent company to retain control over it by means of, for instance, its ownership policy. Technology transfer of this integral architecture will proceed on an "organizational" basis, and the investment burden will be heavy. Overseas operations in the auto industry are an example of this.

Making strategic arrangements for further growth

Three points emerge from the above-mentioned data and reasoning. The first concerns the development of international organizational capabilities as a firm grows into a multinational corporation. Japan's firms enjoy a competitive advantage in integral industries, but overseas deployment comes at a high transfer cost, and technology transfer must proceed on an organizational

Table 1
Architecture Type and the Approach to Technology Transfer

	Knowledge subject to technology transfer			Characteristics of technological knowledge vital to competitive advantage	Approach to technology transfer
	Codifiability	Teachability	Complexity		
Modular architecture	High	High	Low	Externalities and public good character of technological knowledge	Licensing, outsourcing, joint ventures
Integral architecture	Low	Low	High	Difficult to imitate technological knowledge	Organized technology transfer using controlling direct investment

Source: Prepared by the author based on Kogut and Zander (1993).

basis. It has long been said that for Japanese companies to globalize, fostering personnel and creating organizations are more important than anything else. When firms in integral industries seek to advance overseas, they must diligently address the task of developing human resources and organizations, and they must accomplish this task within the international dimension. Many Japanese businesses need to devote attention to this point.

The second point concerns the importance of forging alliances with Asian companies that have modular capabilities, an area of Japanese weakness. Japanese companies may have excellent organizational skills of the integral type, but if they make an unreasonable commitment to a modular business, there is a danger they will come up short in normalizing competition. Nonetheless, this is an area where possibilities can be found for cooperation in an international division of labor with companies of other Asian countries.

The third point concerns the ability of Japanese companies to innovate and secure comparative advantage by means of foreign direct investment. The overseas operations of firms are deployed using the organizational capabilities at home as a base. The

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deployment of overseas operations in a growth region such as Asia basically entails making the most of Japan's comparative advantages and strengthening complementarity with operations at home. Pursuing production in other Asian countries enables the realization of efficient operations. Japan's firms can seek expansion in operational areas where their own organizational skills can be put to good use, and they have room for supplying materials, parts, equipment, and technologies to other Asian countries.

These three points are perspectives that Japanese companies must not overlook when formulating a growth strategy for international activities centered on the Asian region. Having given thought to these points, firms can devote attention to a managerial strategy focused on the next growth stage. During this period of leveling off in macroeconomic growth, firms need to ponder seriously the directions of

change in the external environment and renew their appreciation of their own organizational capabilities.

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A Time for Action and a Time to Lead: Democratic Capitalism and a New "New Deal" for the US and the World in the Twenty-first Century

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Societal Challenges of the Twenty-first Century

There are specific approaches that need to be considered across regions, sectors, and technologies in order to help us all transform global and precipitous threats into real opportunities for peace and prosperity around the globe.

On November 4, 2008, a level of participation by US voters in a presidential election unseen since 1908 shone a new ray of hope on a world full of gloom and doom; this indeed may be a major part of the solution required to tip the world onto a better path away from despair and decline.

The key concept that leaders in politics, the economy, society, and science need to endorse and make the conscience and mantra of us all as citizens and economic agents is the systemic inter-connectedness of the world. Therefore, to address challenges and opportunities today, sectors of priority where sustained action and inspired democratic leadership are needed must be empowered by both top-down policies and bottom-up, grass-roots initiatives and the intelligent use of technology. These sectors are as follows:

1. The financial/economic system
2. Environmental challenges

3. Feeding and healing the world
4. Energy challenges
5. Educational challenges
6. Political democratic reform across the world
7. Transformative government across the world
8. Equity and security across the world
9. Technology innovation and entrepreneurship as drivers of knowledge-based societies

These challenges are themselves logically and systemically interlinked in many and complex ways.

Complexity of Knowledge Societies

Current local, regional, and global economic and financial conditions and trends make the need to trigger, catalyze, and accelerate high-quantity and high-quality entrepreneurial initiatives that are based on high-quality and high-quantity innovations (low-, medium-, and high-tech) even more clear and present, as such initiatives are one of the major ways and means of targeting and achieving real, sustainable GNP growth that can eventually be accelerated.

Creative destruction is the "powerful mechanism" transforming and

adjusting not only economies, but also societies, into new techno-economic regimes, and has profound implications on societal equilibrium and status quo. The systemic socioeconomic and cultural impacts of technology and innovation-driven creative destruction must therefore be better understood and politically managed. Instead of being a wild force, creative destruction can and must be steered and put into the service of democratic societies.

In doing so, policies should become not only global but also holistic and more sophisticated, thereby overcoming their traditional sectoral boundaries (i.e. research, innovation, education, the labor market, transportation, and health).

The holistic policy perspective should support and leverage creativity in the entire society, while losses due to the destructive powers of (radical) innovation and entrepreneurship should be alleviated at the level of the individual as opposed to the level of firms or sectors, irrespective of how big and important these firms or sectors are for the nation. If not, inequality, bitterness, defiance, distrust of democratic institutions, and violence will only increase and worsen throughout the world.

Hence economic growth may come from new and qualitatively different

and superior initiatives in "sunrise" industries, as well as from the revival of existing industries, as it may be strategically more prudent to invest scarce and precious resources in carefully calculated strategic "bets" against main societal threats, rather than continuing to throw them at waning industrial sectors and declining firms. In that sense, it may be best to provide incentives and possibilities for retraining, reinsertion, and/or early retirement programs in order to allow real growth strategies to be implemented.

The so-called low-tech sectors are constantly revitalized and revolutionized with the help of generic technologies and innovative management practices. One need only think of the green revolution with the tremendous effect it still has on societies, including urbanization. Textiles, the food industry, and construction are but a few examples of areas where innovation and entrepreneurship are already making a difference. From a sector-specific perspective, one could assert that high-tech growth is a myth. In fact, structural change is actually a very slow process in all national economies, and the high-tech sectors still represent a very low share of these economies. The truth is that more often than not, old industries adopt

new technologies and breed new solutions, since expertise and know-how can usually migrate and capitalize on closely interlinked activities and technologies.

Hence, already we are discerning a dilemma regarding targets in the modern innovation policies we need most. Hidden innovation practices must be better understood and supported, and it should not be just the new and high-tech areas of industrial development that benefit from the public policy support and R&D funding of more or less the same prioritized areas across the globe; that is, biotechnology, nanotechnology, ICT, and most recently, clean-tech.

The Nordic Model

The secret to the success of the Nordic countries and economies is that policies address and balance the needs of the many, not the few, and that they do so without hampering personal development paths. The majority of citizens are included in multi-local decision-making webs, and early on they learn to trust and manage the basic rules of distributed power. It follows that innovation cannot exist without trusting the individual and without individuals trusting the state and the public sphere.

Let us briefly consider what are the main achievements of these societies:

- The level of corruption is low, and there is a system of checks and balances and transparency that makes the public trustful and willing to contribute to common goods and to societal investments in education, training, health, public infrastructures, etc. There is always scope for improvement, but the fundamental challenge for these societies is to preserve these qualities intact.
- Flexicurity systems enable the forces of creative destruction in the economy to freely unfold and develop while the individual (the ordinary employee) is protected from the adverse consequences of these forces, and they also increase mobility in the labor market. Hence, incentives to try and fail and to innovate and experiment at the individual level are amply present, and risk-taking costs are clearly lower in Nordic countries compared to other areas of the world, where individuals are more worried about job security since the consequences of becoming unemployed are enormous,

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affecting the education and status of their children, etc. Again the main challenge is the problem of "moral hazard," where individuals are tempted to lavishly misuse societal benefits. This is why empowerment through allocating responsibilities, articulating expectations, and integration is a major policy and cultural issue in Scandinavia.

- Developing individual competencies and focusing on high-quality education for all, as well as on lifelong learning policies, seems to be an additional major advantage of the Nordic knowledge-based economies. Lifelong learning in this respect is a key issue, as is trust in, quality of, and effectiveness of public services at all levels. Hence, the lessons learned from the Nordic countries are that innovation in the broad domains of economic life, investment in human capital, development of democratic processes, and constant innovation in the public sector are fundamental aspects of future prosperity.

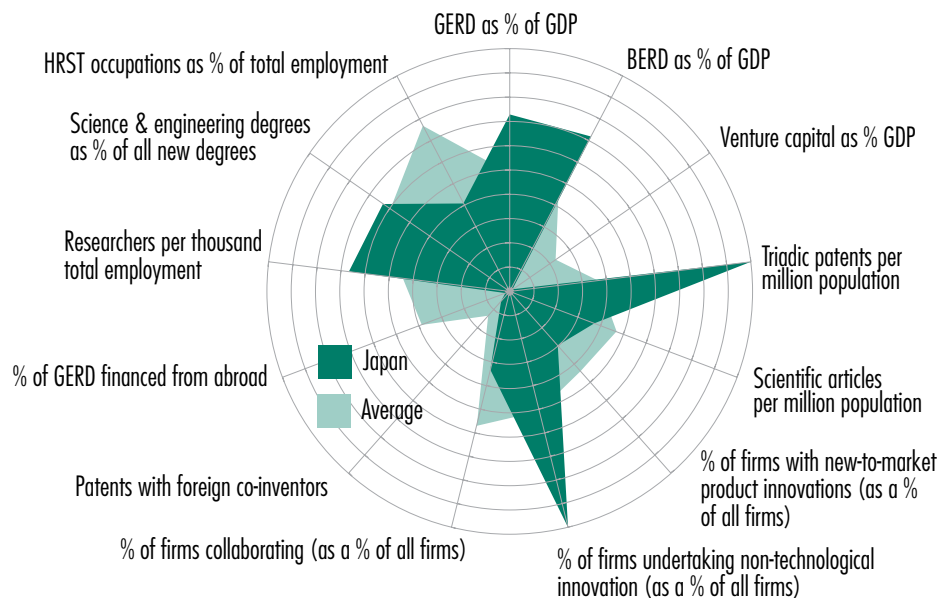
From this follows the direct derivative of a collection of top-down policies as well as bottom-up initiatives. Specifically, the concepts of *robust competitiveness* and *sustainable entrepreneurship* are pillars of a regime that we call "democratic capitalism" (as opposed to "popular or casino capitalism"), in which real opportunities for education and economic prosperity are available to all, especially—but not only—younger people. These are the direct derivative of a collection of top-down policies as well as bottom-up initiatives (including strong R&D policies and funding, but going beyond these to include the development of innovation networks and knowledge clusters across regions and sectors).

- We define *sustainable entrepreneurship* as the creation of viable, profitable, and scalable firms. Such firms engender the formation of self-replicating and mutually enhancing innovation networks and knowledge clusters (innovation ecosystems), leading toward robust competitiveness.
- We understand *robust competitiveness* to be a state of economic being and becoming that avails systematic and defensible "unfair advantages" to the entities that are

part of the economy. Such competitiveness is built on mutually complementary and reinforcing low-, medium-, and high-technology and public and private sector entities (government agencies, private firms, universities, and nongovernmental organizations).

First, existing and new small and medium enterprises (SMEs) that can provide better solutions for less and are more environmental friendly will always be winners—even and perhaps especially in down markets and recessionary economic cycle stages. This is an area where fiscal, monetary, institutional, intellectual property rights (IPR)-related, and other public-private sector programs and initiatives are needed to help unlock, capture, and fully leverage the value-adding potential of the world's knowledge creation infrastructure (i.e. universities, research institutions, and private sector R&D facilities) by providing incentives and establishing a large number, scale, and scope of pilots connecting organically and effectively all stages of the value-adding knowledge chain (from the lab to the market via world-class SMEs that are both locally as well as globally oriented by design and new ones from their inception).

Figure 1. Science and Innovation Profile of Japan



Source: OECD Science, Technology and Industry: Outlook 2008- OECD © 2008 - ISBN 9789264049918

Second, the role of a public sector that is ever-innovating—not only toward greater levels of efficiency and effectiveness, but also toward new ways of organizing and addressing newly emerging issues with the objective of providing framework conditions for socio-economic development and empowering and attributing responsibility to citizens—is fundamental. The more complex the world, the more important it is to develop the intelligent, robust, responsive, progressive, and flexible organization of public services and policies.

The Japanese Context

Japan is a country that, according to many indicators, is at the forefront of global knowledge production. The *OECD STI Outlook 2008* states: "... R&D outputs have not always appeared commensurate with the substantial investment in R&D. ... Strengthening the efficiency of the innovation system will be essential to increasing growth" (see figure 1).

Yet, strengthening the efficiency of the innovation system implies that greater efforts should be invested in making Japanese society even more responsive and flexible to the needs of future knowledge societies and even more open to innovation and entrepreneurship by focusing on individual skills and empowerment.

In particular we would like to point out the following challenges:

- **Low levels of international R&D linkages, including a relatively low level of high-skill mobility.** For example, there is very little R&D funded from abroad in Japan.
- **Career paths open to women.** Generous maternal leave schemes and greater inclusion of women in highly skilled professions is still a considerable challenge for a society that has one of the most rapidly aging populations in the world.
- **Job mobility is very low.** This is probably a reflection of the low structural change in Japanese society, a result partly due to excessive regulation in the most dynamic segments of all modern societies—that is, the service sector—and partly due to a low degree of entrepreneurship and venture capital investment and low numbers of new entrants in a number of key economic sectors. Instead of securing jobs, Japanese society should pay more attention to increasing job mobility rates

through ambitious and bold flexicurity and lifelong learning policies, as in the Scandinavian countries. This does not mean, however, that Japan should pursue a high-tech policy of economic restructuring.

- **Innovation in the public sector** should be prioritized as a key area of policy focus.

The fundamental point to be made here is that all these issues are areas where several policies intermingle. These are also areas that are closely related to the final performance and direction of the Japanese economy and society. Therefore, they should also be regarded as societal and economic challenges requiring considerable and more encompassing

policy reforms than the ones already announced in the narrower domain of present research and innovation policies. Again, the ultimate aim is that policies contribute to the empowerment and innovativeness of responsible citizens in a democratic and prosperous society.

The challenge and opportunity is to engage on a large enough scale to convert the past failures of courage and imagination into future successes, and to learn to convert counter-productive cynicism into empowering dreams grounded in reality.

A further challenge will be to identify and outline clearly and convincingly to all citizens in the US and the world a vision for the future and a strategy for change that is comprehensive, feasible,

and compelling enough to overcome the "cynicism premium" that politics has to pay to atone for prior failures of omission and commission.

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