Japan 2010: Prospective Profiles

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Cleared for Public Release

Center for Naval Analyses
4401 Ford Avenue • Alexandria, Virginia 22302-1498
Approved for distribution: March 1996

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Summary

The Commander, Seventh Fleet, asked CNA to assess the security environment of the Asia-Pacific Region (APR) between now and 2010. Through an examination of relevant economic, political, and demographic data and projections, this research memorandum seeks to identify alternative Japanese security-policy orientations in the year 2010. The Project’s final report, *The Dynamics of Security in the Asia-Pacific Region* (CNA Research Memorandum 95-172, January 1996), discusses the implications of these trends (and of the probable trends in other countries of the region) for U.S. forces, particularly the Navy.

Approach

A threefold analytical approach is used to analyze alternative Japanese futures. This involves first identifying predictable long-term trends and “critical uncertainties” in the Japanese political economy—that is, crossroads with unusual significance in determining long-term futures. The approach then uses these systematically predictable and uncertain aspects as building blocks in developing scenarios of alternative futures.

Findings

This analysis identifies nine predictable elements of the Japanese future: rapid aging; high centralization of domestic political power; high short-term savings rates; increased offshore investment; rising technological capability; greater energy insecurities; closer Southeast Asian (as opposed to Northeast Asian) ties; enhanced capacity to be a major East Asian political-military player; and cultural propensity to be inward directed.

Obviously, many of these traits predispose Japan toward greater activism, although aging and cultural characteristics may encourage the
status quo tendency toward quietism. Critical uncertainties include the U.S. forward-deployed presence in Korea and Japan, the prospective effects of Japan’s electoral reform and potential politicization of security issues, long-term savings rates, Taiwan’s relationship with mainland China, the profile and timing of Korean reunification, Sino-Japanese relations, and Japanese public reaction to crises elsewhere in the world, particularly in Asia. Most of these prospectively pivotal developments are political-military contingencies in which American actions or inaction—together with the representation of American behavior in the Japanese media and policy process—can fatefully affect how Japanese security policy evolves.

This paper presents four scenarios for the Japanese future to 2010, based on the predictable long-term trends and critical uncertainties just outlined: (1) a responsive-reactive Japan (50-percent prospect), (2) an assertive Japan (30-percent probability), (3) an autistic Japan (15-percent prospect), and (4) an isolationist Japan (5-percent likelihood). The strongest overall prospect is thus for a continuation of Japan’s prevailing, relatively passive political-military orientation, despite Japan’s rising economic capabilities and expanding geostrategic options. Yet there is a 50-50 chance of disturbingly different outcomes, with the probabilities subject to significant influence from outside Japan.

Reemergence of a responsive/reactive Japan, broadly similar to that of the 1987–89 Takeshita Prime Ministership, could promote many positive outcomes in U.S.-Japan relations. Cooperative burden sharing would be relatively easy to achieve. So would the continuing deployment of U.S. forces in Japan. Joint weapon development and deployment, including such projects as theater missile defense (TMD), could also likely be undertaken.

In contrast to the reactive Japan scenario, an assertive Japan, with a much more proactive foreign policy, would not necessarily be overtly hostile to the United States, but there would be considerable potential for trans-Pacific tension that could spiral into an open break. How an assertive Japan would relate to the United States would depend profoundly on whether it had confidence in American security guarantees. Without such confidence, undesirable consequences could
include: burden-sharing disputes and withdrawal of U.S. forces from Japan; active expansion of Japanese air and naval forces, and of their missions; unilateral deployment of TMD and possibly independent overhead reconnaissance and targeting by satellite; and possible acquisition of nuclear weapons, probably in the form of a sea-based deterrent force.

The two other variations (autistic or isolationist Japan) are given low probabilities of occurring by the year 2010. Although these outcomes are unlikely, they would have unsettling implications for the United States. American policy, in particular, could significantly raise the prospect of perverse outcomes, if it is insensitive to emerging Japanese realities.

None of the four Japanese orientations explored here would have a profound impact on U.S. military access and transit, other than possibly a strongly nationalist version of Assertive Japan. Isolationist Japan would, however, imply loss of U.S. bases in Japan, including Kadena and Yokosuka. These developments could have major regional significance in the context of rising Chinese political-military influence, including the gradual emergence of a Chinese blue-water navy with a major East and South China Sea presence. The loss of Misawa Air Base would also be significant with respect to monitoring, surveillance, and countermeasures in relation to Russian strategic forces operating from Petropavlovsk and in the Sea of Okhotsk.

Recommendations

This analysis strongly suggests the importance of a stable, credible U.S. presence in Japan in reinforcing Japan’s current, yet potentially problematic, pro-U.S. orientation. The U.S. presence will significantly influence Japan’s defense policies because it will determine the credibility of broad U.S. nuclear and other security guarantees to Japan. Such a presence cannot be taken for granted 15 years hence.
To strengthen its prospects, and to reinforce the U.S.–Japan alliance more generally, this study suggests:

- Focusing on the importance of retaining at least a nominal forward-deployed U.S. Korean presence, even when reunification occurs, to avoid “singularization” of the U.S.–Japan presence.

- Paying careful attention to media strategy in Japan, within the context of changing Japanese politics in which the media will play a heretofore unprecedented role.

- Attending to minor working-level irritants, such as traffic patterns around Okinawa bases, that complicate the U.S. presence in Japan.

- Broadening the concept of alliance to include “comprehensive security” elements of special concern to Japan, such as energy and civilian technology.

- Deepening the sense of trans-Pacific mutuality through diverse U.S.–Japan joint projects. Some of these projects should address the populist, isolationist critique of the current bilateral relationship that has broad, and rising, post-Cold War credibility in both nations.
Introduction

This research memorandum is part of a study sponsored by the Commander, Seventh Fleet, to assess the security environment of the Asia-Pacific Region (APR) between now and 2010. The study attempts to identify the most probable evolutionary trends in the APR out to 2010, and to derive implications for U.S. forces, particularly the Navy. This memorandum identifies these trends for Japan. The implications for the forces and for the Navy are contained in the final report for this project, *The Dynamics of Security in the Asia-Pacific Region.*

The approach to Japan's future pursued here is a delicate, but we hope systematic, combination of macroanalysis and microanalysis. It seeks first of all to identify the important, predictable long-range trends, such as demographic change, that will shape the availability of government resources and the environment for government, corporate, and individual decision-making. After isolating the predictable elements of the Japanese future, we outline a series of conceptually possible alternative futures for Japan that might emerge over the coming 15 to 20 years. To determine the actual plausibility of these scenarios, the analysis identifies a series of critical uncertainties and, where possible, incremental benchmarks. These should help the analyst to judge progress toward the alternative futures, as well as the utility of the framework as a whole. In almost all cases, the analysis avoids straight-line projections and assumes a high probability that much of the Japanese future will be discontinuous and counterintuitive.

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Predictable elements of the Japanese future

Perhaps the clearest emerging reality of the Japanese political economy over the next generation is that Japan will be aging more rapidly than any major advanced society in human history. At the end of 1992, around 13.1 percent of the Japanese population (which equates to about 16.3 million people) was over 65 years of age.\(^3\) As figure 1 shows, this is roughly the same share as in the United States, and is significantly less than the share of elderly in Germany and Sweden and many other European nations.

Figure 1. Persons 65 years old and over: Percentage of total population (1900–2025)\(^a\)

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\(^a\) Based on UN world-population prospects, estimates, and projection as assessed in 1990. Figures for Japan are based on population census information and estimates by the Institute of Population Problems. Source: Ministry of Health and Welfare, Latest Demographic Statistics.

\(^3\) Keizai Koho Center, Japan 1995: An International Comparison, 9.
As figure 1 also suggests, however, Japan is experiencing its most rapid period of aging. This began around 1990, and will continue until just after 2000. By the year 2000, a full one-sixth of the Japanese population, or roughly a 25-percent larger share than now, will be over 65. Before the year 2020, Japan will become one of the oldest nations in the world. By that year, if Japanese Ministry of Health and Welfare projections prevail, nearly one-quarter of the Japanese population—or nearly double current levels—will be over 65, compared to less than 20 percent in the United States, less than 13 percent in China, and only 10 percent in Thailand.

Aging will have at least two major implications for the Japanese political economy: a decline in the size of the national labor force and a converse rise in the health and welfare burden that Japanese society must bear. The rising welfare burden will likely be mitigated by the tradition that families, rather than public institutions, care for their elderly. It will also be eased by preemptive government steps, taken by the Ministry of Finance in the late 1980s, to cut back entitlements so that they do not severely aggravate the national budget deficit. The abolition in 1987 of free medical care for the aged, and the initiation of a small copayment requirement in its place, were typical of such measures.

Some economists and policy commentators suggest that aging will bring a sharp decline in Japan's national savings rate. The preliminary evidence from the first few years of rapid aging (since the late 1980s) is that this decline will not materialize to any pronounced degree. After a steady decline from the early 1980s until 1990, household savings rates in Japan have reversed. Indeed, they have slightly risen since 1990, despite the very rapid aging of Japanese society as a whole.

This new trend has dual origins: (1) persistent or even accelerated savings by the elderly, who do not want to inconvenience their...

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4. See, for example, Bill Emmott, The Sun Also Sets: Why Japan Will Not Be Number One (London: Simon and Schuster, Ltd., 1989).
5. See Bank of Japan, Kokusai Hikaku Tkei (Comparative International Statistics), annual.
families and (2) the still-persisting network of informal family support for the elderly, which generally prevents them from becoming wards of the state. Even if aging ultimately does provoke a renewed decline in savings rates, the downturn is, for cultural and social reasons, likely to be very gradual. The prospects of a shrinking labor force due to aging are more real, and pose more fundamental dilemmas for Japan than does any prospect of economically insurmountable welfare burdens. Japan has little way of preventing a decline in the size of its labor force due to aging; the numbers of people in the retiring age cohorts are simply too big. Some postponement of retirement, and the employment of increasing numbers of part-time workers, often female, who previously had not been members of the labor force, will dilute this historic demographic trend. But they will do so only marginally. For example, under Japan's traditional retirement system, nearly 9 million people in the cohort are likely to retire at age 55 over the next five years. Yet fewer than 8 million people in the equivalent teenage cohort will be entering the labor force to replace its retiring elders.6

Inevitably tighter labor markets in the short run, however, are not likely in the long run to force a disruptive transformation of Japanese society—through an influx of really large numbers of “guest workers” from China or elsewhere in Asia, for example. Propelled by Japanese domestic labor shortages and the rising value of the yen, there has been some gradual increase in the number of foreign workers. The number of foreigners entering Japan legally for the first time to work rose from 69,183 in 1987 to 97,101 in 1993, and the Ministry of Justice estimated the presence of around 45,000 additional illegal workers in the latter year. Yet there is little likelihood of a huge, discontinuous further increase. All conceivable political configurations would vigorously oppose this. And the administrative capacity of Japan, an island nation with a well-organized bureaucracy, to restrain larger-scale unwanted immigration is also clear.7

Actual outcomes are likely to be more socially stable than any chaotic influx of immigrants. The existence of large, preexisting “labor reservoirs” in the domestic Japanese political economy—including distribution, agriculture, and labor-intensive small business—will be the most important stabilizing factor. Japan has, for example, nearly 6 million workers employed in its grossly inefficient distribution sector alone. The release of workers from these labor reservoirs into the general economy will help to ease prospective labor shortages, as it responds to foreign demands for rationalization.

Overall, demographic trends are unlikely to seriously destabilize the Japanese political economy or significantly harm its economic performance. As noted above, even very rapid aging seems unlikely to greatly reduce the savings rate. This may mean that Japan's current account surpluses will remain higher, and its currency stronger, than would otherwise be the case. Persistent surpluses could lead to expanded Japanese investment in Asia, and a further "hollowing out" of domestic Japanese industry. Jobs in Japan will no doubt be attractive for foreigners, especially Chinese, in view of Japan's buoyant currency. But labor shortages will not impel immigration into Japan, as was true in Western Europe during the 1950s and 1960s. Japan will find enough workers in its own domestic labor reservoirs, and its political system will be disposed to favor them over prospective Asian immigrants.

Predictable change in the political system

The Diet passed landmark electoral-reform legislation in January 1994, fundamentally changing the system for electing members of the all-important Lower House for the first time since 1947. The legislation provides that 60 percent of the Lower House will henceforth be elected from single-member districts similar to those prevailing in the Anglo-Saxon world, with the rest being selected from party-determined electoral lists, parallel to the electoral process for Germany's Bundestag. Operational provisions for implementing the new system, such as electoral-district boundaries, have also been finalized.

Thus, Japan's next general elections will definitely be held under its provisions, taking place sometime before July 1997 when the current Diet's four-year electoral mandate expires.

It is difficult to say precisely who will be elected under the new system, or what configurations the faction-ridden Japanese political party system will assume in the short run. Indeed, the pending electoral changes initially increase the volatility and unpredictability of the party political system because they make the existing multiparty system—especially the Socialist Party as currently constituted—unviable. But in the longer run (i.e., by the year 2001 or so, when a minimum of two general elections will have been held under the new system), several structural consequences in party politics are predictable with a fair degree of confidence:

1. Politicians will have incentives to make much broader political appeals than in the past. Rather than cultivating a small target constituency of 10 to 20 percent of the electorate (the minimum required to be elected under the old multiple-member constituency system), they will be seeking a plurality of 40 to 50 percent of the total vote. Distributive politics—such as promises of roads, bridges, or subsidies to specialized constituencies—will likely become less important. Symbolic appeals—to consumer interests or nationalism, for example—will conversely become more so.

2. Intraparty factionalism will decline, especially within large parties, such as the Liberal Democratic Party, which have heretofore fielded multiple candidates in the multimember districts. This change will occur because politicians will no longer need a supplementary mechanism (heretofore the factions) to aid them in intraparty electoral struggles within their districts for all-important House of Representative seats. Henceforth, each party will, by definition, typically field only one candidate per single-member district (60 percent of total seats), and party organization will determine list priorities in the 11 large regional voting blocks that will elect the remaining 40 percent of total seats. The electoral change should help to make Japanese political leadership more decisive on both domestic and
international issues because managing intraparty factional divisions will be less of a problem than it was before.

3. The political party structure will tend toward two large, middle-of-the-road parties, broadly similar to the pattern prevailing in the United States and Britain. Of course, distinctive Japanese social characteristics may continue to support some marginal bias toward greater pluralism. The existence of the large Buddhist group, Soka Gakkai, which has sustained the Komeito party since the mid-1960s, or divisions within the labor movement, which have sustained distinct Socialist and Democratic Socialist Parties since 1960, for example, may have this effect. But there will be a powerful tendency toward consolidation around two large, relatively nonfactionalized parties, driven by changes in the electoral system. Once again, this tendency should help remove structural constraints that have made it difficult for decisive leadership to emerge in postwar Japan.

Predictable changes with respect to trade and investment

As economists never fail to point out, a nation's current account balance is inevitably linked to its propensity to save. If Japanese national savings continue to be relatively buoyant, as suggested above, substantial current account surpluses will persist and will need to be recycled. In view of prevailing global factor prices, productivity, and marginal rate of return on investment, the heavy new recycling of Japanese funds is likely to be within Asia, rather than with the United States or Europe.

Most new Japanese Asian investment, as in the recent past, will be in manufacturing. This will reinforce formidably competitive new offshore Japanese production bases in Asia. Well over half of current Japanese offshore Asian production is now absorbed in local markets,9 and this will need to continue. Otherwise, under the assumptions of persistently high Japanese savings adopted here, there is a strong possibility that the fruits of this new Japanese Asian investment will flow

to the United States, compounding already high and rising American deficits with China and surrounding low-wage Asian nations.

In coming years, Japan will tend to build up a larger investment base in Asia. Because of the heavy past concentration of Japanese investment in the United States, it will take some time—perhaps a decade—before this Asian investment will rival in scale the huge stock of Japanese investment already in place in the United States. But the trend will most likely be toward a rising investment share in Asia, accelerated by the economic and political difficulties Japanese firms are having with their American investments, especially in the service industries. Matsushita's MCA and Sony's Columbia Pictures are the largest, but far from the only, cases in point.

Within Asia, although the dominant prospective destination of Japanese investment remains unclear, it is critically important in long-run geostrategic terms. From 1989 to 1993, in the shadow of Tiananmen, that destination was Southeast Asia, especially Indonesia. More recently, it has been China.

Asian regionalism may emerge more rapidly with respect to trade than with respect to investment. Indeed, Japan's trade with Asia has been larger than its trade with the United States since 1991. Yet the trend in both fields will be parallel. Japan will be increasingly dependent on Asia, economically speaking, and ever less dependent on the United States—patterns contrasting sharply to the entire previous history of the post-World War II period, and increasingly similar to the prewar era.

Predictable trends in technology

Throughout most of the postwar period—indeed, throughout most of Japan's modern history since the coming of Perry's black ships in 1853—Japan has been a follower nation in technological terms. It has relied heavily on the outside world, especially the United States, for

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10. This investment totaled $177 billion over the 1951–1993 period, or 42 percent of Japan's global total, as opposed to $67 billion in Asia. See Japan 1995, 55.
cutting-edge technology and has generated relatively little of its own. Yet, since the early 1980s, these traditional patterns have begun to change, with fateful prospective long-term consequences. And they may well be accelerated by the waning of the Cold War.

In 1980, Japan spent 2.35 percent of GNP on research and development (R&D)—an amount significantly less than the 2.35 percent of a much larger sum that was committed by the United States. But by 1992 this share had risen to 3.55 percent of GNP, significantly higher than in the United States and comparable only to Germany's 3.71 percent. Furthermore, Japan's R&D spending was based overwhelmingly (82 percent) in the private sector. Without heavy defense R&D spending, Japan is not being hurt by the heavy post-Cold War cutbacks in government R&D expenditures that are affecting the United States. Here, nearly half of total U.S. R&D spending is still provided by the federal government, especially the Pentagon, a pattern that has no clear analogue in Japan.

As Japan's spending on R&D steadily rises, it is not surprising that its technological balance of payments with the world continues to improve. In 1987, it ran a deficit of almost $500 million with the world on its technology account; by 1992, this had turned into a narrow but unprecedented surplus of $52 million, the first in Japanese industrial history. In a number of important sectors, such as construction and new materials research, Japan has become preeminent globally, and a major exporter of technology.

This trend toward increasing Japanese technological sophistication is likely to continue. Japan is spending increasing sums on R&D, and is economically in a position to expand its commitments still further. As Japan becomes a more important commercial rival, Western firms are growing more reluctant to license technology, forcing the Japanese to develop their own. The Japanese government is also placing strong emphasis on technology support programs, especially as the state's role in other areas narrows under the twin pressures of domestic

12. Ibid.
deregulation and international liberalization. Deep-seated tendencies toward technological autarky are also at work.\textsuperscript{13}

In terms of technology, Japan is growing increasingly advanced and self-sufficient. Much of its technology has military applications, although Japan remains relatively backward in systems integration. Its relatively low priority on explicitly military production and its lack of production experience are both reasons for its weakness in this critical area of systems integration. It is very strong, for example, in carbon fiber production and in reinforcing technology. It is also relatively strong in, and devotes substantial resources to, microelectronics and optoelectronics. It has become quite competitive in many areas of aircraft component production. Yet Japan has never become a significant integrated aircraft manufacturer. Its single major venture into civilian aircraft production, the YS-11, was a miserable competitive failure.

Looking to the future, it seems predictable that Japan will have rising capacity to transfer state-of-the-art, domestically produced, militarily relevant technology to other nations. Under the 1983 bilateral U.S.–Japan agreement, a mechanism has been clearly established for transferring such technology to the United States. How substantial bilateral flows under this agreement will be and how much dual-use technology flows will be broadened to other nations are uncertainties for the future that will become increasingly critical as Japan’s defense-related technological sophistication rises.

**Predictable trends with respect to energy**

Japan relies on imports for over 80 percent of its energy supply, and this is highly unlikely to change much in the near future. It has no major domestic oil fields, either in production or in clear prospect, and relies on imports for 99 percent of its oil supply. Nuclear power, particularly the breeder reactor, is Japan’s principal long-term option for achieving some significant degree of energy independence, and

such an option has major drawbacks of its own. Japan has spent over $20 billion on the breeder program, yet that technology appears unlikely to be operational for at least 20 years, and unlikely to be cost-effective for some time beyond that.

Japan’s innate energy vulnerabilities could assume broader geostrategic significance in the event of major global shortages, and accelerated competition for existing supplies. It is, of course, difficult to predict when or whether another global oil shock will occur. But the emergence of China as a major oil importer, coupled with declining Indonesian production and explosive consumer demand in newly industrializing economies (NIEs) like South Korea and Thailand, makes it likely that net Asian imports from the low-cost producing area of the world, the Middle East, will increase sharply over the next decade. This could lead to increasing competition between China, Korea, and Japan to safeguard increasingly important sources of energy supply. A Chinese blue-water naval buildup could be the catalyst for broader regional maritime rivalries about securing oil supply lines.

Some significant increase in Japan’s plutonium stockpile is predictable as a consequence of ongoing civilian nuclear power programs and enriched uranium reprocessing, regardless of whether Japan makes the political decision to actively develop nuclear weapons. Civilian nuclear power programs currently provide about 10 percent of Japan’s primary energy\textsuperscript{14} and nearly 30 percent of its electric power.\textsuperscript{15} The Organization for Economic Cooperation and Development (OECD) projects that Japanese civilian nuclear capacity will rise by at least one-third and possibly as much as two-thirds by the year 2010,\textsuperscript{16} depending on government politics and the rate of economic growth.

Operating a conventional civilian nuclear reactor generates waste that can be chemically separated, or “reprocessed,” and used again as fuel. This reprocessing, which Japan has begun actively to undertake,

\begin{itemize}
\item \textsuperscript{14} Asahi Shimbun, 162.
\item \textsuperscript{16} Ibid.
\end{itemize}
generates plutonium. Japan currently has stockpiles of more than 10 tons; only 7 kilograms are required to produce a nuclear bomb.

Japan’s civilian nuclear fuel cycle program seems likely to generate around 80 to 90 tons of weapon-grade plutonium by the year 2010, an amount almost ten times Japan’s current stockpile. This will be generated by a combination of imports from British and French nuclear reprocessing centers (30 tons) and domestic reprocessing of nuclear waste from conventional uranium-based reactors (50 tons). There is also at least the hypothetical prospect of Japanese plutonium purchases from dismantled nuclear weapons, a supply that will amount to 149 tons by 2000 and 199 tons by 2003.17

Japan’s Atomic Energy Commission projects that this plutonium will be consumed through a projected demand of 80 tons from conventional reactors. Yet these projections are roughly double the level of other consensus forecasts. Taking all the existing evidence together, it seems reasonable to assume that Japan will have a stockpile of perhaps 50 tons of plutonium by the year 2010—which would be convertible in a matter of months to a formidable nuclear arsenal, should Japan explicitly decide to produce nuclear weapons.

**Persistent patterns of regional relations**

Japan’s direct investments in Asia have more than tripled over the past decade, to around $70 billion. The bulk of the new flows has been directed toward several nations of Southeast Asia (Indonesia, Malaysia, and Thailand). Japanese firms have actually disinvested from South Korea, while both trade and investment ties with the Russian Far East have been likewise deteriorating. Broadly speaking, Japan has drawn economically closer over the past decade to the nations of Southeast Asia and more distant from those of the Northeast.

The same broad pattern seems likely to hold true with respect to future diplomatic ties, and even military relationships. Japan is grow-

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ing closer to Southeast Asian nations, such as Indonesia, Malaysia, Thailand, and Vietnam, while its ties with Korea, Russia, and China—its neighbors in Northeast Asia—remain delicate. It is China and Korea that object to Japan’s expansion of military power overseas, even under UN auspices, while Malaysia, in particular, encourages it toward greater diplomatic and political activism.

Foreseeable regional contingencies in East Asia seem likely to further encourage this bifurcated pattern of Japanese relations with Asia. The prospect of Indochinese peace and progressive integration into regional affairs will create major new opportunities for peaceful, symbiotic ties with Southeast Asia. Japanese interests are likewise broadly parallel to Southeast Asia’s, if in conflict with China’s with respect to the South China Sea. Conversely, Korean reunification and any possible changes in the Taiwan Straits status quo seem likely to complicate—not ameliorate—Japan’s ties with Northeast Asia. Always in the background also are memories of World War II—which complicate Japan’s ties with Northeast Asia even as they enhance solidarity with some of the Southeast Asian states, whose early independence movements against the Europeans Japan once supported.

Predictable dimensions of political culture

Culture is broadly recognized to be one of the most conservative elements of any nation’s sociopolitical environment. It places a stamp on nations that typically change only very slowly, although it may be marginally shaped by traumatic national experiences, such as defeat or overwhelming triumph in war. Persistent cultural traits seem likely to shape Japanese security policies over the coming 15 years in four respects.

Perhaps most important, culture generates a strong bias in Japan toward consensus decision-making, by legitimating the value of “wa,” or harmony. A position that enjoys broad support, or a leader capable of evoking such support, is ipso facto thought to be virtuous, with only scant regard to underlying substance. There is little sense of transcendent morality or right, apart from the actual world of affairs; Japanese thinking in this sense is profoundly relativistic.
There are several concrete implications of this Japanese cultural emphasis on harmony. First, it helps make Japanese decision-making slow and tortuous. It also tends to mean that low-profile, self-effacing leaders are admired, whereas more overtly aggressive personalities are not highly evaluated.

The relativistic streak in Japan's political culture tends to make the Japanese highly pragmatic in their international dealings. Many nations are situationally oriented in their diplomacy and business affairs, but this tendency seems especially pronounced in Japan. Abstractions, such as human rights, have relatively little salience; to the extent that the United States tries to use these as an operating guide to policy, it comes more easily to a divergence of position with Japan, as has been true frequently with respect to China policy.

Japanese political culture also tends to be profoundly inward looking rather than externally oriented. Japanese are, to put it differently, more preoccupied with the shape of Japan's own domestic order, or Japan's proper place in international society, than they are with the details of their own political-military strategy toward the outside world. For them, foreign relations are often akin to weather forecasting.

Predictable defense policies

To summarize the implications of the foregoing, Japan 15 years hence will likely possess greater militarily relevant economic and technological capacity than it does at present. Its overall level of interdependence with the world, to be sure, will have risen. Yet Japan will be more deeply integrated with Asia and less deeply tied, economically speaking, to the United States. Its government is likely to be more proactive politically, facing less powerful cross-pressures from agriculture and small business against defense spending. Yet it will remain broadly constrained by an inward-looking, consensus-oriented political culture. Demographic change will divert some resources toward

welfare and away from political commitments, but pressures of this kind will be less powerful than commonly perceived.

Japan, in short, will have considerably enhanced capacity to be a major East Asian political-military player. It will also have greatly expanded economic interests to protect, particularly in Southeast Asia. The issue of its regional and possibly global geopolitical role will thus be a very major one for international political-military as well as economic analysis.
Critical uncertainties for the future

Many major aspects of the Japanese future are difficult to forecast, but some are more important than others in determining the relative prospects that various alternative futures will materialize. This section of the analysis tries to identify some of these critical uncertainties, and to explain their broader importance for Japan's future. The next section strives to integrate those critical uncertainties systematically with the predictable elements in actually building concrete scenarios for the future.

The U.S. forward-deployed presence in Korea and Japan

The U.S. presence will significantly influence Japan's defense policies because it will determine the credibility of broad U.S. nuclear and other security guarantees to Japan. Yet there is major long-term uncertainty as to whether U.S. forces will, in fact, remain in South Korea and Japan. The two reasons for this uncertainty are the dynamics of Korean reunification and the problem of burden-sharing.

Given the substantial and growing economic gaps between North and South Korea, as well as the post-Cold War geostrategic changes surrounding the Korean peninsula, some form of Korean reunification seems just a matter of time. When Korea is reunified, and even when North-South tensions are measurably reduced, the clearest rationale for U.S. forces in South Korea will disappear. Nationalist sentiments in Korea, coupled with disagreements over bearing their costs, may ultimately lead to the removal of U.S. bases, despite numerous and continuing intergovernmental communiques to the contrary.

Should U.S. forces withdraw from Korea, those in Japan would probably constitute the last remaining forward-deployed U.S. presence in East Asia. As such, they could well attract Japanese nationalist criticism. As in Korea, the substantial costs of supporting these forward-deployed forces could become a significant domestic political issue.
There were already early signs of this in the Murayama Cabinet’s approach to preparing the fiscal 1995 budget for host nation support.

**Long-term Japanese savings rates**

Japanese savings rates will be enormously important in influencing the nation’s future because they will determine Japan’s ability to grow, to increase productivity, to develop technology, to export capital, and to support expanded international commitments. As noted above, this analysis assumes that they will remain constant, or only modestly declining, for the period of analysis to the year 2010, as a result of persisting extended family support and the frugality of the elderly themselves. For the longer-term future, however, changing values, exacerbated by generational change, introduce additional uncertainty that could influence the relative likelihood of alternative Japanese economic futures. Should savings decline (the most likely divergence from patterns posited here), Japan’s growth, foreign investment, and power-projection capability would all probably be constrained.

**Profile and timing of Korean reunification**

Korean unification is a critical uncertainty, obviously present on the short-term analytical agenda, that could also have long-term implications for Japan’s future. Should major violence occur in the process of reunification, through a North Korean attack on the South or civil war in North Korea (with or without Southern intervention), Japan’s consciousness of its own need for security guarantees, or possibly expanded military forces, would increase. The speed of reunification (rapid being more threatening), the disposition of North Korea’s nuclear capacities, and provisions for post-reunification reduction of overall Korean military capabilities would also affect Japan’s perception of its own security needs.

A key stabilizing factor within a unified Korea, in a geopolitical sense, could well be the continued presence of U.S. forces. That presence would mutually reassure both Korea and Japan regarding the other’s actions, while simultaneously deterring Chinese pressure against Korea. In a concession to a likely resurgence of Korean nationalism
in the wake of reunification, some provision for a gradual decline in the scale of local U.S. deployments would probably be optimal within Korea. But maintaining some residual presence in Korea would be politically important in Japan to maintain the legitimacy of U.S. deployments there.

Taiwan’s evolving relationship with mainland China

The relationship between Taiwan and China could be enormously important to the future of Japanese security policy. If China and Taiwan ultimately unify in a political-military sense, the threat to Japan’s sea lanes could be magnified immensely. If such a unification were to occur through violence or the clear threat thereof, as through a naval blockade or a direct Chinese attack, American credibility with Japan could be seriously undermined, a point developed more fully in ensuing scenarios.

The ultimate outcome of Taiwan’s deepening ties with the mainland remains genuinely uncertain. Taiwanese investment in China proper is now well over $10 billion. But military tensions have also been escalating, as evidenced by recent Chinese naval maneuvers and China’s enhancement of its submarine fleet with the acquisition of Kilo-class Russian submarines. The rising strength of the DPP Taiwanese nationalist movement, which captured the Taipei mayoralty in December 1994, also contributes to uncertainty.

Sino-Japanese relations

Japan and China are the giants of East Asia, with over three-quarters of regional GNP between them. They are the only two nations of the region that have truly global geostrategic potential. Their capabilities could be among the most important on earth during the first half of the 21st century, and their complex relationship could fatefully influence world, as well as regional, affairs. Both are technologically sophisticated, with substantial military forces, and a bitter history of mistrust and violence between them. They have significantly conflicting interests in the South and East China seas, with respect to both resources and lanes of transport and communication. Yet these East
Asian giants share a common culture, and economic ties between them are rapidly deepening.

The course of Sino-Japanese relations will profoundly shape several other aspects of Japan's future, outside the political-military arena. It could determine patterns of Japanese investment, as well as technology flows: if Sino-Japanese relations are good, those flows will move heavily toward China, accelerating its growth and possibly its military potential. Otherwise, they will gravitate more toward Southeast Asia, where the global geostrategic implications will be limited.

Energy prices and patterns of dependence

Across the vast reach of East Asia apart from China, from Sapporo to Singapore there is not a single major land-based, currently operating oil field. There are a few offshore fields, and much talk of offshore potential, but the prospective reserves in question are largely in the politically contested South China Sea, 90 percent of which is claimed by China in conflict with six other nations. Since November 1993, China itself has been a net oil importer, with the magnitude of those imports likely to rise sharply as it enters the era of the automobile. Yet global energy prices, and Asia’s means of satisfying its clear and pressing energy needs, are uncertain.

In the absence of decisive policy intervention, East Asia will most likely satisfy its rising energy requirements from the global low-cost source of supply, the Middle East. But doing so would generate an increased reliance on OPEC, together with long-distance lines of supply across the Indian Ocean. Many consider these twin dependencies dangerous and destabilizing in the long run. Alternatives in the South and East China seas, Alaska, the Tarim Basin, Siberia, and Sakhalin all have potential. But it remains uncertain which, if any, of these prospective alternate energy sources will actually be developed.

Implications of Japanese domestic political reform

Japan, which has just experienced the collapse of a ruling party dominant for 38 years, three prime ministers in six months, and the advent of sweeping new electoral legislation, cannot easily return to
political patterns prevailing before mid-1993, when this period of remarkable political volatility began. Clearly, recent changes are momentous. As suggested above, there is much about their long-run implications for political party structure and competition that is predictable. Yet much about their long-term implications for policy remains unclear.

The long-persisting system of one-party dominance by the Liberal Democratic Party (LDP) created enormous economic inefficiencies and budgetary cross-pressures to defense spending. Now that this dominance has ended, will these inefficiencies be rationalized, or will they persist? Both supporters and opponents have strong constituencies, so the outcome remains uncertain—yet manifestly critical to Japan’s future. If the inefficiencies are rationalized, Japan could become at once both a more open economy and a more proactive force in political-military terms, with greater resources at its disposal.

While most substantive implications of reform for security policy appear genuinely uncertain, some caveats and refinements are in order. First, reform will most likely generate a broad-based short-run consensus in favor of the U.S.–Japan Security Treaty. The fluidity instilled in the political system by the collapse of LDP rule has already impelled the Japanese Socialists, the main traditional antagonists of the treaty, to recognize it as the price for creating the Murayama LDP–Socialist coalition cabinet in the summer of 1994.

In the longer run, however, reform will most likely generate a more politicized and contentious Japanese security-policy process, which could even periodically become a focus of electoral debate. Four factors will be at work. First, reform of electoral politics will likely centralize power in the political system toward two large parties, as noted above, and reduce the influence of factions. It will be easier for leaders to speak and act decisively on security questions, naturally leading to polarization of public opinion with respect to the more proactive steps that they begin to take.

Reform will also reduce the emphasis in domestic politics on distributive issues such as public works and the provision of subsidies. Conversely, it will encourage broader, more issue-oriented appeals as the relevant political constituency that politicians confront expands, with the shift toward a single-member district system, from 10 to 15 to 50 percent of the vote. National defense is a quintessential appeal of this sort in virtually every nation.

Reform is also increasing the power of the mass media in Japanese politics, as it progressively undermines the media's opponents in the traditional political world. It is opening up the details of political, business, and occasionally bureaucratic scandals, undermining many conventional power brokers. The Japanese media are quite polarized on security issues; as they grow more influential and less inhibited, they themselves may well encourage the politicization of security policy.

A final reason that the details of Japanese security policy—as opposed to the legitimacy of the overall security framework—will grow more politicized is that concrete corporate and political interests will be more deeply engaged. From World War II until roughly the mid-1980s, national security was a remote abstraction for most Japanese. It was a Cold War game played by the superpowers, remote from concrete Japanese concerns, which have tended toward the economic. As offshore investment and geostrategic consciousness rise, a substantial number of Japanese are coming to feel that they have economic or psychological stakes in decisive international engagement. Other domestically oriented groups, however, are becoming more acutely aware of the costs involved in rising interdependence.

Japanese public opinion

Japanese public opinion has a few remarkably persistent elements, such as general attitudes toward particular nations. Switzerland and the United States have alternated as the most popular foreign country in virtually all major opinion polls for more than 30 years. In January 1995, 42.6 percent of Japanese “liked” the United States and 42.7
percent “liked” Switzerland; the comparable figure for the United States in 1991 was 43.8 percent and in 1981 was 37.9 percent.20

Some nuances in Japanese public attitudes toward the United States are worth noting. Farmers, housewives, and manual workers—all groups with relatively low skills, education, income, and exposure to the outside world—have the lowest opinions of the United States and, indeed, of all Western countries; 33, 40, and 41 percent, respectively, “liked” the United States in early 1995. Executives and administrators (53 percent) were the most positive group toward the United States. Thus, there appears to be a significant elite-mass split in Japanese public opinion toward the United States, similar to attitudes in the United States toward Japan. In both nations, the “man (or woman) on the street” is considerably cooler toward Japan or the United States than is the business person or government official who deals across the Pacific more directly.

Just as they are broadly and persistently positive toward the United States, the Japanese are persistently negative toward Russia, South Korea, and, to a lesser extent, China. Only 0.6, 3.5, and 10.0 percent of Japanese, respectively, liked these three nations in early 1995.21 They are more negative toward North Korea (a mere 0.1 percent positive) than toward any other nation on earth, with this highly critical attitude persisting ever since opinion polling began.

Japanese public opinion does have its volatile aspects, however—and this generates important uncertainties for the future. Within three months of the Iraqi invasion of Kuwait in August 1990, for example, favorable ratings for the United States slipped by a fifth, from 47 to 37 percent, as the United States massed troops in Saudi Arabia and criticism of Japanese inaction mounted in the United States. These ratings then fluctuated violently over the course of the Gulf crisis, before soaring in the wake of the Desert Storm victory. Japanese opinion of the United States seems to correlate more closely with U.S. criticism

20. See Jiji Press, Jiji Yoron Chosa Tokuh (Jiji Special Public Opinion Reports), various issues. Respondents are allowed to select three favored countries.

21. Ibid.
of Japan, as reported by Japanese mass media, than with specific military actions by the United States. It therefore suggests the importance of the Japanese mass media, especially television, in determining the tone of Japanese opinion toward U.S. military deployments worldwide.

Japanese opinion polls thus suggest broadly favorable attitudes toward the United States—much more positive than toward prospective U.S. adversaries. Yet a large and rapidly growing share of the Japanese public seems to feel that U.S. forces in Japan—the linchpin of the current trans-Pacific security structure—should be either reduced or totally withdrawn. In November 1989, according to a Yomiuri Shimbun poll, 39.1 percent of the public felt this way. By September 1992, in the wake of the Gulf War and intensified U.S.-Japan trade frictions, this ratio had risen to 61.8 percent.²² Disagreement over funding for these troops, in a post-Cold War era of fiscal stringency in both nations, could make this issue of American bases in Japan increasingly controversial with the Japanese public in the future.

Looking to the future, Japanese public opinion on security matters of concern to the United States is uncertain for two major reasons. First, it is heavily influenced by Japan’s broadcast/print media networks, which are both larger and more integrated across major media than in any other industrialized nation. And these networks are likely to be neither unified nor, as a group, predictable in their prospective future assessment of national security questions.

Second, Japanese opinion is being subjected to increasingly severe substantive cross-pressures. The overall benefits of Japanese economic interdependence with the broader world are clearly increasing for Japan as a whole, both in trade and investment dimensions. But the costs to important subnational groups, especially farmers and small-business workers, are also rising, magnifying the collective ambivalence of a Japanese people noted culturally for their commitment to harmony.

Possible scenarios

The predictable elements of Japan's future orient that nation in a particular direction. Yet the critical uncertainties generate significantly different alternative futures within that general line of progression. Four possibilities seem especially likely: (1) a reactive/responsive Japan, which essentially preserves the status quo; (2) an assertive Japan; (3) an autistic Japan, operating on autopilot, unable to adapt in response to external circumstances; and (4) an isolationist Japan. Each is outlined below, followed by a subjective assessment of the probability that any one might be Japan's dominant political-economic reality 15 years hence. Hybrid scenarios, of course, are also possible, although the permutations are beyond the scope of this analysis.

A responsive/reactive Japan

The responsive/reactive Japan scenario posits a nation that would behave in international affairs essentially as Japan actually has for the 40-odd years since the end of the Allied occupation: in other words, it presents Japan as a responsive ally of the United States, proposing few novel initiatives, but generally willing to go along with strong U.S. suggestions persistently advocated.

The domestic and international conditions of the 1980s and early 1990s were almost ideal for creating and sustaining a responsive/reactive Japan. The domestic political scene was fragmented, with multiple opposition parties and one highly fractionalized ruling party (the LDP) that was close to the United States. Japan's international economic relations were stable, and economic dependence on the United States was high. Credible U.S. guarantees ensured against emerging uncertainties in the security realm.

It will be hard to precisely recreate these conditions, ideally conducive to sustaining a responsive/reactive Japan, over the coming
15 years. Absolutely crucial to approximating them will be a credible United States security guarantee, with expanded mutual consultation provisions to give Japan some sense of responsibility sharing in the alliance.

Such consultation, confidential if need be, will be especially important on delicate, inherently ambiguous issues critical to Japanese security, such as Taiwan’s fate in the face of embargoes, blockades, or more serious military pressure from mainland China. Moderation in American economic demands, and commitment to free trade, will also be important to sustaining a responsive Japanese orientation. That is not to suggest constant agreement or obsequiousness. Indeed, the Japanese will not respect an America that is not mindful of the enlightened self-interest of its major firms, and they recognize the inevitability of periodic trans-Pacific divergence in economic interest. Domestically, a stable evolution within Japan toward a modestly factionalized two-party system, without dominant leaders, would probably be most likely to stimulate realization of this scenario.

Reemergence of a responsive/reactive Japan, broadly similar to that of the 1987–89 Takeshita Prime Ministership, could promote many positive outcomes in U.S.–Japan relations. Cooperative burden sharing would be relatively easy to achieve. So would the continuing deployment of U.S. forces in Japan. Joint weapon development and deployment, including such projects as theater missile defense (TMD), could also likely be undertaken.

This scenario has roughly a 50-percent prospect of being reality in the year 2010. The weight of existing institutions, as well as interdependence with the United States, support it. But dynamic, rapidly developing economic ties with China, coupled with the dangers of isolationist tendencies in the United States and the complexities of bilateral burden sharing, militate against such an eventuality.

An assertive Japan

In contrast to the reactive Japan scenario, this variant would involve a much more proactive Japanese foreign policy. Japan would not simply defer to the United States, but would have its own clear-cut foreign
policy. Such an assertive Japan would not necessarily be overtly hostile to the United States, but there would be considerable potential for trans-Pacific tension that could spiral into an open break. In the absence of new responsibility-sharing mechanisms, an assertive Japan would increasingly tend to go its own way in foreign policy.

How an assertive Japan would relate to the United States would depend profoundly on whether it had confidence in American security guarantees. Without such confidence, perverse consequences could include:

1. Burden-sharing disputes and withdrawal of U.S. forces from Japan.
2. Active expansion of Japanese air and naval forces, and of their missions. For example, Japan could very possibly expand its 1,000-mile sea lane defense perimeter to include a more active naval role in the South China Sea, the Straits of Malacca, and possibly the Indian Ocean.
3. Unilateral deployment of TMD and possibly independent overhead reconnaissance and targeting by satellite.
4. Possible acquisition of nuclear weapons, probably in the form of a sea-based deterrent force.

Such an assertive Japan, lacking confidence in the United States, could well expand defense spending rapidly, especially air and naval power. It could likely come quickly into competition and perhaps direct conflict with mainland China, very possibly with respect to sea lanes or offshore resource development. Japan's sophisticated satellite and missile-defense capabilities could also be provocative to the Chinese, particularly in the context of broader developments of offensive potential.

Domestic political change, centering on a new electoral system and consolidation of the party system, is probably the prime necessary precondition for the emergence of an assertive Japan. There is a strong chance of these domestic requisites being met in the coming six or seven years, particularly if Ozawa Ichiro succeeds in his consolidation of political power. But whether an assertive Japan is allied with
or antagonistic to the United States depends profoundly on the American response to several key international contingencies:

1. A major Taiwan crisis, involving a naval blockade or direct attack on Taiwan, to which the United States did not respond. This is probably the contingency that could most seriously affect America's future role in Asia. A U.S. failure to respond could rapidly intensify unilateralist sentiment in Japan. Should the United States take the lead with decisive action, however, an assertive Japan would probably respond positively. Most of the Japanese political Right, which would be politically dominant under this scenario, is both pro-Taiwan and fully conscious of how a sudden shift in Taiwan's orientation could influence Japanese national security.

2. Korean reunification. Japan would lose confidence in the United States if it allowed a reunified Korea to possess nuclear weapons or even the ambiguous residual capabilities that North Korea seems to hold at present.

3. Uncontested Chinese expansion in the South China Sea, especially if this involved significant violence against the forces of other claimants to territory there.

4. Intensified bilateral trade and technology frictions, such as widespread application of unilateral U.S. Super 301 sanctions.

5. A major extraregional crisis, such as a repeat of the 1990–1991 Persian Gulf confrontation, in which the United States did not adequately represent Japanese interests.

This assertive Japan scenario has around a 30-percent chance of materializing by the year 2010. Japanese economic growth and the implications of political reform will militate in favor of it. Reducing its prospects, however, will be latent uncertainties regarding two variables: the rising complexity of decision-making in all advanced, interdependent nations, and Japan's cultural traditions of consensus and low-profile leadership.
An autistic Japan: The perils of automatic pilot

Recently, many analysts, both Japanese and foreign, have noted the complexity of Japanese institutions and policy processes, as well as the fragmentation of power in the political system as a whole. Some also suggest, concluding from this structuralist analysis and chronic government unresponsiveness to phenomena as diverse as the 1990 Gulf crisis and the 1995 Kobe earthquake, that Japan is an autistic system—in incapable of either full comprehension or meaningful reaction. They see no significant catalyst that would change this situation.

The model of an autistic Japan bears superficial similarities to that of a responsive/reactive Japan. Both are so institutionally fragmented as to make decisive, proactive behavior difficult. The crucial difference, of course, is in the ability of the “Japan” in question to change its course in response to new contingencies in its external environment. How could the reactive Japan of the past 40 years realistically change into autistic Japan?

Three key forces would be at work. Externally, declining economic reliance on the United States, due to a diversification of Japan’s trade and investment ties toward a range of small Asian nations, would deprive Japan of the only possible external stimulus to change. The United States, as international superpower and former occupying power, has enjoyed a legitimacy in influencing Japanese decision-making that could be undermined by economic regionalism, but replaced by no one else. Domestically, a reactionary, antiforeign coalition of agricultural, small-business, and construction interests—a variant of the Murayama coalition and one close to the domestic base of isolationist Japan—would block response to international pressures for change. Finally, and most important, a fragmented and highly provincial bureaucracy would dominate policy-making, taking advantage of the confusion provoked by political reform to entrench itself. The fiscally conservative Ministry of Finance would most likely be a powerful force in such a coalition, although not sufficiently dom-


inant to render the coalition as a whole capable of really decisive action.

An autistic Japan—one incapable of changing course, despite shifting international circumstances—thus might very quietly emerge, as Japan's economic ties diversify, American leverage declines, and domestic party-political turmoil continues. Such a Japan might not formally repudiate the U.S.-Japan Security Treaty or existing economic agreements, but it would take no vigorous steps to implement them. It would, for example, take no sanctions against North Korea, even should those be needed to implement a nuclear proliferation agreement. And it would take no significant action in future international crises. Japan would take no steps to defend Taiwan in the face of serious pressures from mainland China. Its inaction would deepen deflationary patterns around the world, impoverish international organization, heighten international resentment of Japan, and render its own immediate security environment ever more dangerous.

Fifteen years hence, autistic Japan has a probability of around 15 percent. It is posited on the incapacity of major Japanese social and political institutions. They have clear problems, and the bureaucracy is deeply entrenched. But combined pressure from overseas and the domestic media, in the context of political reform, create a strong likelihood that major change will in fact occur.

One might speculate on how various predictable trends outlined earlier would influence the emergence and behavior of an autistic Japan. Growing Japanese dependence on investment and production elsewhere in Asia, together with threatening developments in the external environment (such as a major expansion in Chinese military capabilities or possible Korean reunification), would stimulate Keidanren and other major Japanese business groups, ever more powerful in the face of political party weakness, into intense domestic and international activism. Domestically, such organized business groups would push insistently for deregulation and forms of radical political reform that would reduce the costs of an autistic state to their operations. Internationally, they would support broad-ranging Pacific regionalism, while making special arrangements with the Chinese
and others to protect their local economic interests. One security consequence could be a slow “Finlandization” of Japan in the face of a Chinese buildup and rising American frustration, led by the business community and the domestic wing (Budget Bureau) of the Ministry of Finance.

An isolationist Japan

A fourth possible scenario for Japan’s future is a repetition of its prewar past: systematic withdrawal from any responsible involvement in international affairs. Japan did this in the mid-17th century, when it forbade foreigners to enter Japan (apart from the small enclave of Dejima in Nagasaki port) and refused to allow Japanese to leave. The ensuing isolation lasted over two centuries (1637–1854). Japan also pursued radical isolationist policies on several other occasions in its history, as following its intense interaction with China during the seventh and eighth centuries. Korea’s Yi Dynasty, which lasted over 700 years and ended in the late 19th century, was so isolationist that it was known as the Hermit Kingdom. In recent times, China pursued a radical isolationist course during the Cultural Revolution, and North Korea does so to this very day.

Concretely, an isolationist course for Japan would involve rejection of United Nations peacekeeping roles, suspension of Japan’s efforts to become a permanent member of the Security Council, withdrawal of financial support for international obligations, withdrawal of U.S. forces from Japan, and abrogation of the United States–Japan Security Treaty. In a Taiwan or Korean crisis, Japan would leave the United States to respond alone. It could well deny the United States use of Japanese bases, considerably complicating the logistical requirements of such a unilateral U.S. response.

Given Japanese energy and security vulnerabilities, compounded by the absence of U.S. defense guarantees, an isolationist Japan would probably accelerate its current breeder reactor program, and place some emphasis on unilateral ABM defensive measures. It might very

well also develop an ambiguous, undeclared nuclear capacity similar to that of India, a course facilitated by the large amounts of plutonium generated under its nuclear fuel cycle program. Japan's overall foreign policy might bear some striking resemblance to, that of present-day North Korea, on a much larger scale.

The emergence of an isolationist Japan could be provoked by a deepening of the present surprisingly intractable domestic recession, combined with a growing backlash against international commitments. Continued rapid yen revaluation, unmitigated by compensating fiscal expansion, could intensify a deflationary spiral that would facilitate this sort of outcome. Deepening trade frictions could also heighten the antiforeign populist backlash. The isolationist course would be propelled politically by a coalition of socialists and conservative small-business interests—a variant, in fact, of the 1994–95 Murayama coalition cabinet.

Emergence of an isolationist Japan would probably accelerate the repatriation of overseas investments by Japanese firms back to Japan. It could well stimulate domestic investment in housing and welfare, but at the cost of deepened deflationary tendencies in the United States and East Asia. The long-run adverse impact on U.S. economic and political interests in the Pacific would be substantial.

This is the most improbable of the four scenarios. The prospects of an isolationist Japan in the year 2010 are about 1 in 20, or 5 percent. Culture, the complexities of dealing with an incessantly demanding outside world, and the disillusionment of parochial domestic interests will support this tendency. Yet increasingly powerful forces for interdependence—multinational corporations, consumers, financiers and so on—will render it quite unrealistic, except in the case of very strong broad-based national disillusionment with interdependence. Even more than at present, the world of 2010 will be one in which powerful transnational economic forces will constrain the options of even major nation states through such mechanisms as sudden financial crises, making overtly isolationist policies all but impossible.
Implications for U.S. interests and objectives

Each of the scenarios presented in the previous section obviously has implications for American interests. It may be useful to make these explicit, with respect to definable U.S. policy goals, such as the following.

1. A stable system of regional relations

A responsive/reactive Japan would help perpetuate the status quo. Provided the United States remained committed to an active role in East Asia, this profile would probably produce the most stable system of regional relations. The least stable would probably be a system with an assertive Japan alienated from the United States as a central actor. In such a situation, there would be a strong prospect of a globally dangerous Sino-Japanese arms race.

2. Growth and development of the Pacific region’s economies along free-market lines

Again, a responsive/reactive Japan would most effectively facilitate this goal. An isolationist or autistic Japan, conversely, could seriously complicate its realization. Japan is such a large presence in the region economically (still over half of East Asian regional GNP) that its failure to cooperate, both in market liberalization and in macroeconomic stimulation, would have serious deflationary and protectionist implications throughout the Pacific.

3. Continued U.S. ability to work cooperatively with states of the Asia-Pacific Region

A responsive/reactive Japan would be the most preferable of the various scenario outcomes presented, from this perspective. The autistic and isolationist variants would obviously be hard to work with. An assertive Japan might be more tractable in terms of this objective than at first anticipated for two reasons: (a) it would be capable of proactive efforts overseas, and (b) the shadow of China might loom large
enough across the region to encourage cooperation with the United States, even if Japanese efforts were disruptive.

4. Unimpeded access and transit

None of the four Japanese orientations explored here would have a profound impact on U.S. military access and transit, other than possibly a strongly nationalist version of Assertive Japan. Isolationist Japan would, however, imply loss of U.S. bases in Japan, including Kadena and Yokosuka. These developments could have major regional significance in the context of rising Chinese political-military influence, including the gradual emergence of a Chinese blue-water navy with a major presence in the East and South China seas. The loss of Misawa Air Base would also be significant with respect to monitoring, surveillance, and countermeasures in relation to Russian strategic forces operating from Petropavlovsk and in the Sea of Okhotsk.

5. Prevention/restraint of proliferation

It is unlikely that Japan, in contrast to China, would actively promote diffusion of either weapons of mass destruction or advanced delivery systems, under any of the scenarios posited above. It has long had arms-export bans in place, and has no strong current incentives to change them. Only under some variant of the assertive Japan scenario might the arms-export ban itself be lifted.

Japan does, however, have an extremely sophisticated defense industrial base, and large amounts of plutonium already in storage to fuel its nuclear reprocessing and breeder reactor programs. It also has very weak espionage laws. It would be dangerously easy, under virtually any of the four scenarios outlined here, for determined foreign agents or terrorists to gain access to either nuclear materials or to technology for advanced delivery systems.

The greatest immediate danger would seem to be North Korean or, from a longer-term perspective, Chinese access to Japanese dual-use optoelectronics technology relevant to the development of advanced missile guidance systems. North Korea, after all, does appear to have some residual nuclear capacity and rudimentary missiles, whose accuracy and perhaps range could be greatly improved by Japanese
dual-use technology. Under the autistic, isolationist, or variants of the assertive Japan scenarios, Japanese dual-use technology could be available to potential U.S. antagonists, unless the Japanese government actively stepped in to prevent this. The prospective implications clearly require further analysis.

From a longer-term perspective, corporate-level technological cooperation between Japan and China could also pose some security dangers, under virtually all scenarios. Japanese optoelectronic, robotics, new materials, and communications technology all fill important gaps in Chinese capabilities, even at present, and complement the more explicitly military technologies that China is already acquiring from the Russians. Given Japan's high level of financial commitment to both basic and applied research in defense-related dual-use industrial sectors, its potential for diffusing sensitive technology to third parties will continue to increase.

6. Expansion of democratic government

Despite a few symbolic steps in intermittent support of U.S. human rights policies and related support for democratic evolution, as in Myanmar, Japan has not shown much interest in this area. There is little reason to expect much change in the future. To the extent that the United States stresses democratic evolution as a policy objective, a responsive Japan might intermittently echo this priority, particularly at the level of rhetoric. Japan under other scenarios would probably not even bother to do that. Its economic cooperation with Asia could, however, help in the long run to create preconditions for democratic government, by increasing prosperity across the region. Its role in promoting stable rural development, through technical agricultural assistance, help in setting up farm cooperatives, and provision of infrastructure, could be especially important.

7. Responsible practices in transnational areas of concern

Two types of Japanese political economy could make important contributions in the transnational area: a responsive/reactive Japan and an assertive Japan. Both would be strongly concerned with the welfare of their multinational firms, whose activities are rapidly becoming global. Both, for different reasons, would be interested in the
construction of stable multilateral regimes. A responsive Japan would be doing so because the United States favors such a course; an assertive Japan might be doing so from narrower considerations of Japanese national interest, related to the high level of Japanese investment overseas.

The problem would be with the isolationist and autistic Japans. Their governments could obviously not cut their firms off from major involvement in the international economy. But they would give those firms only very limited encouragement or guidance in being responsible. Such indifference could be a major blow to global efforts at creation of broad international technical standards, and to initiation of new international regimes.
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Other observers of China have pointed out that despite the widespread disruption of the Cultural Revolution on almost all walks of Chinese life, the Strategic Rocket forces, and other highly sensitive organizations appeared to be protected by the Communist leadership.

Furthermore, this memorandum's history of China's defense production includes periods after the Cultural Revolution and the Great Leap Forward. In fact, the prolonged development and production cycle time for the XJ-10 (F-10) fighter, the Zhi-8 helicopter, the C-101 SSM, and the HQ-7 SAM all took place in the post-Mao, Dengist era of the Chinese economy and polity.
Appendix D: Sources and citations for Chinese reverse engineering efforts

(1) Jianjiji-7 (Fighter Aircraft 7) or Jian-7: Jane's All the World's Aircraft, 1994-4, p. 47: "Soviet licence to manufacture the MiG-21 F-13 and its R-11F-300 engine granted to Chinese government in 1961, when some pattern aircraft and CKD (component knocked down) kits delivered, but necessary technical documentation not completed; assembly of first J-7 using Chinese made components began early 1964; original plan in 1964-5 was for Chengdu and Guizhou factories to become main airframe/engine production centers for J-7, backed up by Shenyang until these were fully productive, but plans affected by onset of cultural revolution. Static testing completed November 1965; first flight of Shenyang built J-7, 17 January 1966; Chengdu production of J-7 I began June 1967; development of J-7 II began 1975, following first flight 30 December 1978 and production approval September 1979."

(2) Zhishengji-8 (Verticle Take-Off Aircraft 8) or Zhi-8: Jane's All the World's Aircraft, 1994-5, p. 50. "Design work begun 1976, but suspended from 1979 to mid-1984; initial flights of first prototype 11 December 1985, second prototype October 1987; domestic type approval awarded 8 April 1989; first Z-8 handed over to PLA Naval Air Force for service trials 5 August 1989."

(3) F-6 (MiG-19): China's Airforce Enters the 21st Century, RAND 1995, p. 222. "The MiG-19 first flew in 1952 or 1953. It was provided to the PLAAF in 1958, along with air-to-air and surface-to-air missiles, to counter Nationalist high-altitude and high-performance jet reconnaissance of the Chinese Mainland. Production...was...initiated at Shenyang, with a Chinese-assembled MiG-19 flying in 1958, and the first F-6 flying in September 1959. The early 1958 to 1960 "Great Leap
Forward," the complex design of the MiG-19, and the Sino-Soviet split of 1961 caused successful series production to be delayed until 1963."

(4) B-6/Tu-16: China's Airforce Enters the 21st Century, RAND 1995, pp. 228-9. "In 1956, the USSR agreed to build a factory for medium bomber manufacturing in China and granted a production license for the Tu-16 in 1957. Prototype production began at Harbin and Xi'an in 1959. Prototype assembly, using Soviet components, was completed quickly, and the first aircraft flew in September 1959. A small number of aircraft were completed in the following years. Following the Sino-Soviet split, all production was transferred to Xi'an. In 1964, work was completed on modifications to allow the B-6 to drop nuclear weapons. A successful delivery was completed on May 14, 1965. The first Xi'an-manufactured aircraft flew in December 1968, and series production began the following year."


(6) Jianjiji-8 (Fighter Aircraft 8) or Jian-8 Finback: Jane's All the World's Aircraft, 1994-5, p. 59. "Development started 1964; first flight of first two prototypes 5 July 1969; flight trials (but no other J-8 activity) permitted to continue during 1966-76 cultural revolution, totalling 663 hours in 1,025 flights by prototypes; initial production authorized July 1979; three prototypes of J-8I then built (one lost before flight testing); first flight 24 April 1981 by second aircraft; production go-ahead for this version given July 1985."

(7) The Hai-Ying 1 (HY-1): Jane's Naval Weapons-Issue 15, 1995. "In 1959, the Soviet Union supplied China with examples of the SSN-2A 'Styx'...which China decided to manufacture under license at the Nanchang Aircraft Factory as the SY-1...Even before the SY-1 entered service, the Nanchang Aircraft Factory proposed in December 1964, that an improved version exploiting Chinese technology be
developed. The Chinese Navy already possessed a requirement for a dedicated coast defense derivative and in early 1965 Liu Shaoqi, chairman of the People's Republic of China ordered development of the missile as Hy-1 (Haiying-1 or Sea Eagle). A design review was held at Beijing in April 1965...This scheme, which involved modifying the radar seeker, autopilot, rocket motor, and booster, was completed rapidly. The prototype Hy-1 systems were completed in 1966 but failed their flight tests during 1966 and 1967...In May 1972, three missiles were used for flight acceptance trials and all hit their targets, but it was not until 1974 that the design was accepted for volume production which began the following year.”


(9) Yunshuji-7 (Transport Aircraft 7) or Yun-7: *Jane's All the World's Aircraft*, 1994-5, p. 63. “Reverse engineering of Soviet 48/52 passenger Antonov An-24 began in the mid-1970s, three prototypes (first flight 25 December 1970) and two static test airframes being completed; Chinese C of A awarded 1980); pre-production Y-7 made public debut 17 April 1982, production starting later same year; initial Y-7 entered service early 1984.”

(10) Xi'An F-7 (Mikoyan MiG-21) or Fishbed: *Jane's All the World's Aircraft* 1980-1, p. 35. “Design of this Chinese copy of the Mikoyan MiG-21 fighter was based initially on that of a number of Soviet built MiG-21Fs (Fishbed-Cs) delivered to China prior (1958?) to the political break in 1960. The difficult task of copying the airframe, the R-11 afterburning turbojet (built at Shenyang) and equipment was completed so quickly that the F-7 made its first flight in December 1964 and began to enter service with the Chinese Air Force of the PLA in 1965.”

(11) The Chinese SD-1 Missile: *Jane's Intelligence Review*, June 1994, p. 277. “Derived from the land based HQ-61, it took some 20 years to
develop. Installation has been limited to two frigates of the Jiangdong class. The missile reached operational capability 10 years after the completion of the first ship."

(12) The C101 Missile: *Jane's Intelligence Review*, November 1992, pp. 512-513. "The development of the C-101 probably started in the late 1970s, and models of the missile have been shown at exhibitions since 1986...There have been several trial firings of the C-101 since 1989...it is estimated that the In-Service date will be 1995. The Chinese have offered the C-101 for export, but there have been no reports of actual production orders being placed."

(13) XJ-10 Fighter: *Jane's Defence Weekly*, 19 February 1994, p. 28: "[The XJ-10] incorporates advanced technology from abroad—i.e., Israel provided some of the technologies from its defunct Lavi fighter project...Design of the XJ-10 began in the late 1980s, [and] analysts believe that a prototype could be ready for trials within 2-3 years. The first production aircraft is unlikely to become operational before the end of the decade (e.g., 2000), and may take longer if teething problems prove serious." *China's Airforce Enters the Twenty First Century*, RAND, p. 155. "The Chengdu Aircraft Corporation is nearing completion of an initial prototype of the F-10 (XJ-10), incorporating design features analogous to some found in the F-16, while also utilizing technologies first developed in the Israeli Lavi. Current estimates project an initial flight test 'in the next year or two' and 'initial operating capability in 10 years'...It is the authors' view that the F-10, if produced at all, will not be deployed until at least the year 2002."

(15) Ju-Lang 1 (JL-1): *Jane's Strategic Weapons-Issue 15, 1995.* "The CSS-N-3 has Chinese designation Ju-Lang-1. The PRC started development of their first submarine launched ballistic missile in 1967, for use with the 'Xia' class of nuclear powered submarine. The CSS-N-3 is thought to use some CSS-2 (which is itself a derivative of Soviet SS-2 'sibling missiles') technology, but took a long time to develop due to the need to master the technologies associated with solid propellants...Test firings were carried out in 1982, reportedly from a submerged pontoon (30 April) near Huludao and later, on 12 October, from a 'Golf II' class trials submarine... (The JL-1) were ceremonially
paraded in Beijing in October 1984, and it is believed that they became operational in 1983...

(16) **FM-80 or HQ-7**: *Jane's Strategic Weapons-Issue 17, 1995.* "Initial reports suggest that the FM-80 (is)...a reverse engineered version of the French Crotale system. [It is] believed to have been in development since 1978. [It was] designed as a self-propelled vehicle for a static or trailer mounted point defense SAM system, and is believed to have the Chinese designator Hang-Qi 7 (HQ-7). [It] is believed to have entered production for the Chinese People's Liberation Army in 1989, and entered service in 1991."
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