



Current Status of Military-to-Industry Relations in Japan, and Suggestions for Adapting to New Strategic Environment

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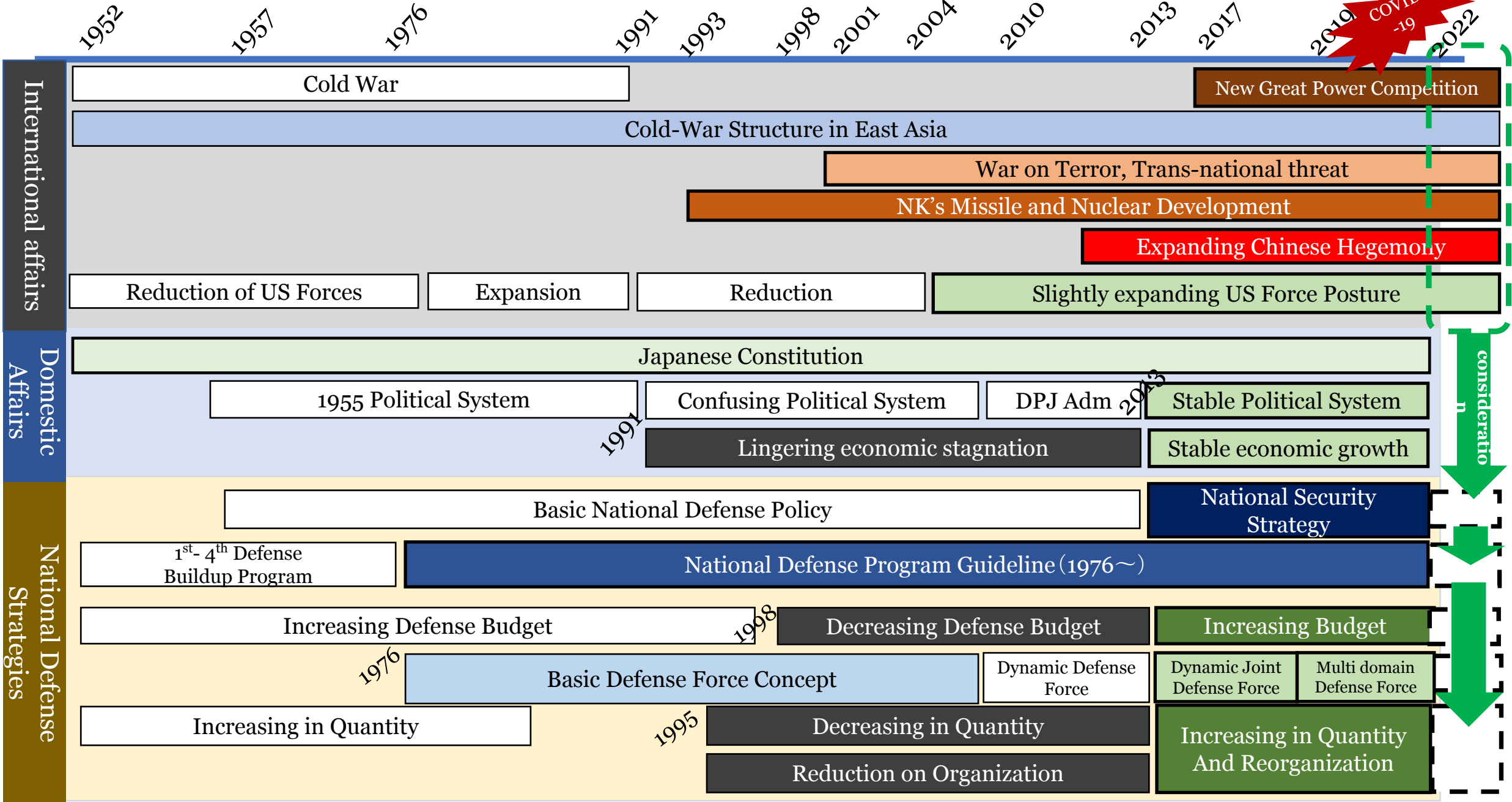
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Conclusion

1. COVID-19 changes the industrial structure in Japan.
2. A review of security policy with China as a potential threat is inevitable.
3. Directions of Japanese Defense Capability;
 - a. Shift from large equipment-centric systems to the best mix of manned and unmanned systems
 - b. Prioritize to disrupt the kill- chain of China's reconnaissance-strike complex
 - c. Possess capability to counter hybrid warfare in the gray zone
4. Defense budget should pursue the best practice to balance acquisition/development of equipment (to pursue strength) and maintenance of equipment (to maintain readiness).
5. Diversify R&D and procurement methods to equip the latest technology in the shortest time
6. Transfer of defense equipment/technology should focus on “truly competitive” ones.

Japanese defense industry will have an opportunity for a structural change.

History of Japan's National Defense Strategies



Remaining Negative Impact of Economic Depression and Basic Defense Force Concept

- ❑ Long-term equipment-prioritized budget weakened the logistics capability.
- ❑ Goal of defense buildup became to maintain the NDPG, not to counter threats.
- ❑ To defend “quantity” of defense capacity by “elaboration and adherence to the theory of requirements” became the goal of defense buildup
- ❑ Defense capability has shrunk, aged, hollowed and obsoleted to a level that cannot be recovered by increasing budget for several years.



- ❑ “Neutral” NDPG hinders defense buildup to meet China’s challenges.
- ❑ R&D is not based on a concrete CONOPS along with budgets constraints, blurring R&D focus.
- ❑ R&D budget constraints weakened Defense Industries’ incentive and weakened R&D power in Japan.
- ❑ As a result, it has created a structure that relies on imports for state-of-the-art equipment.
- ❑ Increase in defense budget by government bonds is affecting operational ratio of equipment.
- ❑ Japanese industries’ lack of incentive for defense business drives them from defense business.

20-years of Decline of Japanese Defense Industry and its Accumulated Damage

- ❑ Negative effects of maintaining quantitative levels while overcoming difficulties
 - ✓ Excessive military-industry interdependence has, in turn, caused the industry's distrust the military.
 - ✓ Downsizing of defense sector in Japanese industry resulted in a loss of incentives for defense technology innovation.
- ❑ Negative effects of incremental defense technology innovation
 - ✓ Excessive efficiency for saving costs fostered a corporate culture: "avoid adventure"
 - ✓ Compartmentalization for survival fostered inefficiency and a culture to avoid responsibility.
 - ✓ Excessive competition among shipyards splits industry, hinders overseas transfer of ships
- ❑ Harmful influence of Three Principles of Arms Export
 - ✓ "JSDF is the only customers" raised "tendency to wait for government instructions".
 - ✓ Lack of effort to collect information abroad caused Defense industry's "frog in a well" situation
 - ✓ Lack of opportunity to evaluate relative competence of domestic equipment blurred eyes to see reality of arms export
 - ✓ JSDF has also less opportunity to assess its relative capabilities.

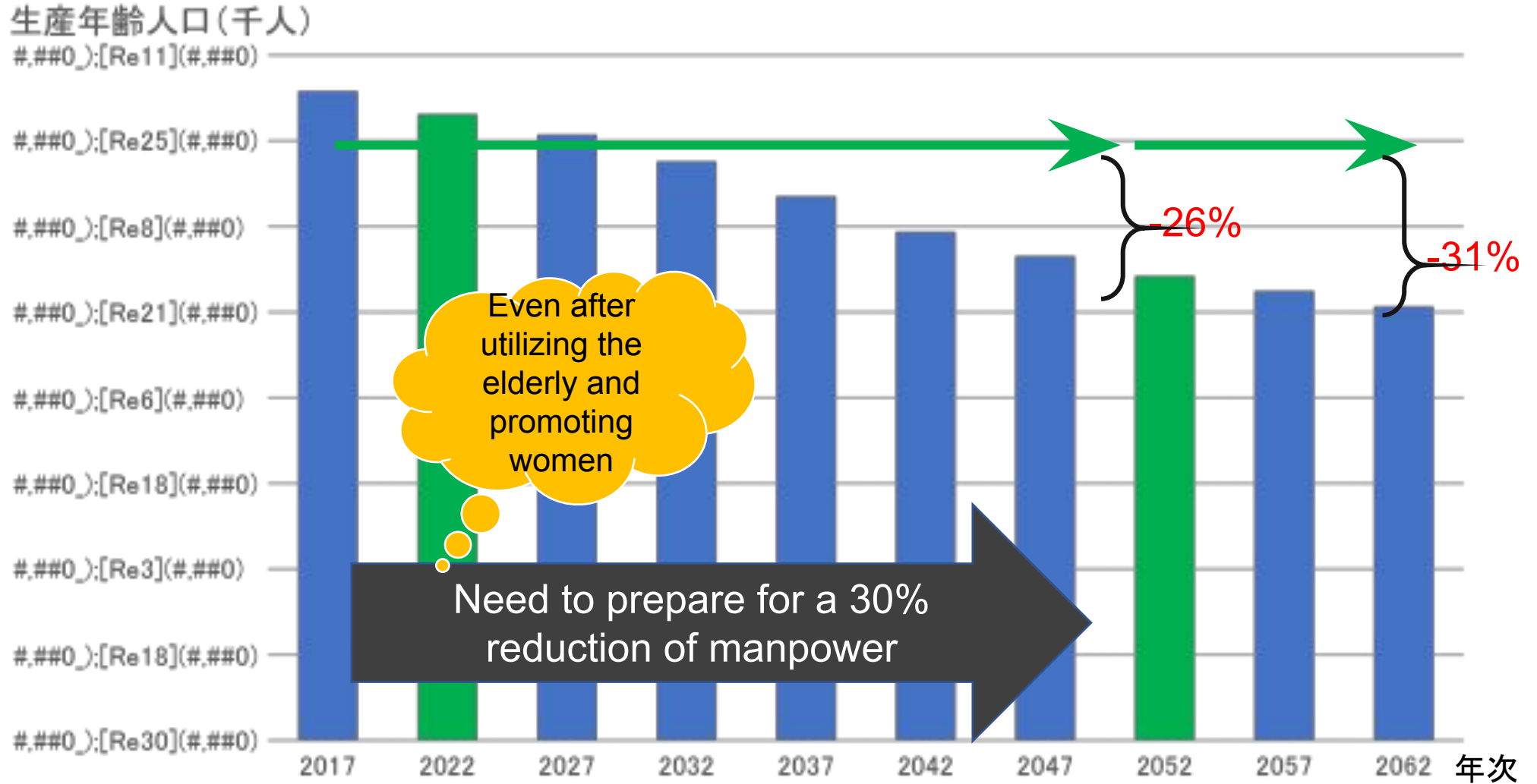
Factors Affecting the New NDPG

- ❑ National Finance
 - ✓ Gradual increase of defense budget due to continuous critical situation of Financial balance
 - ✓ Need to improve/reinforce/replace defense capability through the most cost-effective way
- ❑ Decreasing Japanese Demography
 - ✓ Working-age population decreases about 30% in 30years: JSDF's manpower would be reduced about 30%
 - ✓ Geographic sphere of JSDF operation is expanding to the entire Indo-Pacific
 - ✓ Need to quantitative reinforce defense capability, while introducing autonomous, labor-saving equipment.
- ❑ China's Hybrid Warfare and Anti-intervention capability (A2AD) is *Real*
 - ✓ Possess high-end equipment in high readiness more than ever
 - ✓ Need to meet Information warfare: improve survivability/redundancy of C2 system; reinforce Commander's decision-making cycle.
- ❑ Remarkable speed of implementing emerging technology
 - ✓ Acquire equipment in most effective way in shortest time: Diversify way of acquisition
 - ✓ Japan-only R&D cannot keep up with current technology trends: Coexistence of domestic/multinational R&D
 - ✓ Japanese defense equipment is generally "unique": need to develop on international standards

Defense Capability in New Strategic Environment

- ❑ Operation in A2AD environment
 - ✓ Best mix of manned and unmanned vehicle
 - ✓ Introduce of unmanned system (UAV,UUV,USV) with assuming exhaustion
 - ✓ Establish Jointly “New Spear and Shield Relation” to counter A2AD challenges
- ❑ Prioritize Payload rather than Platforms
 - ✓ Payload development (avionics, weapon system)
 - ✓ Reinforce platforms’ performance by improvement/repair, not by replacement
- ❑ Establish Defense posture through reinforcing Japan-U.S. Joint Interoperability
 - ✓ Fully aligned Strategy, Operation and Tactics between Japan and U.S.
 - ✓ Establish more distributed, more joint, and more networked Alliance
- ❑ Keys to information Warfare: Integration, Resilience, Substitutability, and Restoration-ability
 - ✓ Integrate Integrate siloed information and Operate jointly
 - ✓ Fact-check of information by Government/Private sector cooperation
 - ✓ Measures to absorb system damage/degradation by physical attacks.

Continued Decline of Working-age Population (15-64 years old)



Challenges for Japan's Defense Industry

- ❑ Strengthening information-gathering posture for Defense Industry's development.
 - ✓ Collect information by self-help efforts and improve equipment, similar to the defense industry abroad
 - ✓ Effectively involve Start-up industries
- ❑ Focus on overseas business (equipment transfer) in area where Japanese defense industries have competitiveness
 - ✓ "Realistic equipment" such as surface vessels and submarines
 - ✓ "Used equipment" that is in extremely good condition
 - ✓ Joint production of parts of defense equipment
 - ❑ Diversification of supply-chain
 - ❑ Supplemental production/export of parts whose production lines are closed in the U.S.
 - ✓ Export "Knowledge and skills" of Japanese repair companies
- ❑ Move away from large/legacy equipment-centric thinking
 - ✓ Distributed, Joint, Networked, and Survivable equipment
 - ✓ Pursuit of more autonomous/labor-saving/power-saving/unmanned systems