

An hourglass-shaped graphic with a globe inside. The top bulb is dark blue, and the bottom bulb is light blue. The globe is centered in the narrow neck of the hourglass. The top bulb is filled with a dark blue globe, and the bottom bulb is filled with a light blue globe. The hourglass is centered on the page.

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Globalization: Implications for U.S. National Security

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Abstract. Many policy options have been suggested that may offer limited means for exploiting the opportunities and ameliorating the problems created by globalization and related developments. Some options that are likely to receive congressional consideration include: modifying defense R&D, procurement, force structure, forward deployment, and information security. The changing environment could also prompt the United States to reexamine its alliance relationships, industrial and work force policies, nonproliferation and export controls programs.

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Globalization: Implications for U.S. National Security

June 15, 2001

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Globalization: Implications for U.S. National Security

Summary

Globalization is a term usually used to describe intercontinental economic, social, and political integration. Many people, businesses, and countries benefit from globalization but others may be hurt economically, some cultures may be harmed, and the environment may suffer. U.S. national security faces both benefits and risks from globalization.

Several contemporary developments that effect U.S. security are often linked to globalization even though they may not be not directly related to multinational integration. Developments such as decreased defense budgets, increased military use of civilian products and technology, privatization of defense R&D, consolidation of defense industries, and increased military use of sophisticated information systems are the results of decisions based on changes in the foreign threat, technological innovations, and domestic political and economic changes. Globalization and other developments affecting U.S. defense industry and government research, acquisition, security, and export control policies have shaped a security environment sharply different than that of the Cold War.

Globalization may actually reduce the risks of conflict among closely connected nations. Economic integration probably contributes to international political stability by increasing economic interdependence and helping the spread of democracy. In conjunction with related defense developments, globalization has contributed to enhanced U.S. military capabilities through the efficient application of commercial technologies and commercial services, and has improved interoperability of allied forces, according to a study by the Defense Science Board. The U.S. military's exploitation of advanced information systems, sensors, navigation devices, and computers – some of the same technologies that have driven globalization, has enabled U.S. leaders to coordinate firepower and troop movements with unprecedented combat effectiveness while reducing the level of U.S. casualties.

Globalization is also increasing U.S. vulnerability as key military and dual-use technologies become available to all countries that can afford them and world travel and information flows have been made inexpensive and relatively easy. The U.S. armed forces also have become more reliant on sophisticated electronics – some of it produced abroad – and are exposed to new forms of information warfare. The military industrial base may become less responsive to national security needs as it takes clients, materials, labor, and capital from the global market.

Many policy options have been suggested that may offer limited means for exploiting the opportunities and ameliorating the problems created by globalization and related developments. Some options that are likely to receive congressional consideration include: modifying defense R&D, procurement, force structure, forward deployment, and information security. The changing environment could also prompt the United States to reexamine its alliance relationships, industrial and work force policies, nonproliferation and export controls programs.

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Globalization: Implications for U.S. National Security

The Concept of Globalization

Globalization is a widely and somewhat loosely used term, intended to describe the recent and rapid process of intercontinental economic, social, and political integration. This worldwide integration allows people to communicate, travel, and invest internationally, and helps companies market their products widely, acquire capital and human and material resources more efficiently, share advanced technology, and enjoy economies of scale. While many benefit from globalization, others are hurt economically, some cultures may be harmed, and local environments may suffer. Globalization, in conjunction with a range of other developments and policies, produces both benefits and risks affecting U.S. national security. For a broader view of economic globalization, its history, controversies, and prospects, see CRS Report RL30955, *The Issue of Globalization—An Overview*, by Gary J. Wells.

Four Definitions of Globalization

- “The integration of the political, economic and cultural activities of geographically and/or nationally separated peoples,” (not new or irresistible, not a “policy option.”)^a
- The increase of globalism which “is the state of the world involving networks of interdependence at multicontinental distances ... through flows and influences of capital and goods, information and ideas, and people and forces, as well as environmentally and biologically relevant substances.”^b
- Rapid movement toward international economic integration; consensus on political values, processes, and principles; and the revolution in information and communication technologies.^c
- The defining international system based on “the inexorable integration of markets, nation-states and technologies.”^d

^a Final Report of the Defense Science Board Task Force on Globalization and Security, December 1999, p. 5.

^b Keohane, Robert and Joseph Nye. “Globalization: What’s New? What’s Not? (And So What?),” *Foreign Policy*, Spring 2000, p. 105.

^c Carnegie Endowment for International Peace, *Global Policy Program*, p. 1.

^d Friedman, Thomas L. *The Lexus and the Olive Tree*, Anchor Books, 2000, pp. 7-9

The factors that are most often credited with driving globalization are the rapid advances in electronic information and transportation systems, the end of the Cold War with the attendant collapse of Communism, and the inherent urge of many people to trade, travel, and spread information. The concurrent spread of democracy and free markets makes politically possible that which has become physically and economically possible. Warfare, trade protectionism, economic recession, or disease can slow globalization.

Even if, as many authors contend, globalization is an inevitable development, numerous policy decisions will affect the U.S. ability to exploit its benefits and avoid some of its pitfalls. A discussion of some of the many policy options Congress may consider can be found on the last two pages of this report.

Related Phenomena

Some authors link a range of defense-related developments to globalization in explaining causes of the current security situation and arguing for certain remedies, even though these other developments are not directly related to multinational integration. While they affect U.S. national security and have occurred largely since the end of the Cold War, many such phenomena derive from U.S. policy decisions rather than from globalization per se. Including these developments in the discussion may aid one's understanding of trends in U.S. national security, but it may obfuscate the issue of globalization. Frequently linked phenomena include:¹

- “deep cuts in U.S. defense investment since the end of the Cold War”²
- increased Pentagon purchasing of “off-the-shelf” civilian items
- civilianization of U.S. defense research and development
- a shift of emphasis in military R&D from long-term to near-term
- rapid consolidation of defense industries
- increased military purchases of sophisticated information technologies
- increased importance of economic factors in U.S. arms sales
- Defense Department transition to electronic business operating systems
- increasingly vulnerable personnel security and export control systems
- increased influence of globalized corporations in national security policy
- uncertainty over the types of future military challenges

¹Most of these are discussed in, *Final Report of the Defense Science Board Task Force on Globalization and Security*, Dec. 1999, pp. 1, 7-21, 31. See also, Kosiak, Steven, Andrew Krepinevich, and Michael Vickers, *A Strategy for a Long Peace*, Center for Strategic and Budgetary Assessments, Jan. 2001, p. 53.

²Defense Science Board, Final Report, p. 7. According to the Board report, “procurement and R&D are down 70% and 27% in real terms, respectively, since the late-1980s.” But in 1990 at the end of the Cold War, Defense R&D was \$44.9 billion in constant 2001 dollars, and in 2001 R&D is \$37.9 billion, a 15.6% reduction. The Board’s figure apparently reflects the decline in R&D from 1985 to the projected level for 2005, in constant FY2001 dollars. Declines in procurement, personnel, and construction have been significantly greater than the decline in R&D. See CRS Report RL30447, *Defense Budget for FY2001*, by Mary Tyszkiewicz and Stephen Daggett.

- uncertainty over U.S. ability to maintain military superiority through technology

These phenomena have benefits and risks of their own, separate from those of globalization. It may be useful to try to maintain these distinctions when examining policies to respond to the effects of globalization.

Implications for U.S. National Security

The effects of globalization and related factors on national security are mixed: they provide benefits and opportunities as well as problems and risks. Some observers believe globalization has reduced the risks of war among interdependent states, made the U.S. military more efficient and technologically sophisticated, but also more vulnerable to nuclear, biological, and chemical (NBC) weapons, missiles, and information warfare, and more dependent on civilian industries, including foreign companies that have little direct stake in U.S. security. Based on these developments, the U.S. military appears to be increasingly linked to international companies, technologies, and threats.

But even though U.S. military involvement and influence are widespread, some authors believe military globalism is in a period of decline, having peaked in the two world wars and the extensive competition between East and West during the Cold War. This “military deglobalization” has a profound effect on U.S. national security: the United States no longer needs to prepare for total war with a Soviet behemoth, but has the option of reshaping its armed forces to deter or defeat less powerful regional forces, prevent the use and spread of NBC weapons, counter international terrorists, and defend against information warfare.³

Positive Implications

A recent report by the National Intelligence Council concluded that economic globalization would contribute to international political stability by increasing economic interdependence and helping the spread of democracy.⁴ According to the Defense Science Board Task Force on Globalization and Security, globalization and DoD’s increased use of civilian businesses have numerous actual and potential benefits:⁵

- “huge gains in [military] capability achieved through rapid insertion of leading-edge commercial technology ... and comparable gains in efficiency through use of commercial services”
- “increased pace of modernization by reducing system acquisition cycle”
- potentially lowered costs of systems, upgrades, and operational support

³Keohane, Robert and Joseph Nye. “Globalization: What’s New? What’s Not? (And So What?), *Foreign Policy*, Spring 2000, p. 106.

⁴U.S. National Intelligence Council. *Global Trends 2015*, December 2000, p. 7.

⁵Defense Science Board, Final Report, pp. ii-iii, 7-26. The Board reports that the effects of globalization are inseparable from those of the increased use of the commercial sector, p. 11.

- enhanced DoD efficiency and effectiveness
- improved sharing of the fiscal burden of development and production among allies
- better innovation and industrial efficiencies
- increased political-military cohesion and promoted interoperability

The first four of these benefits appear to be more closely associated with DoD's increased use of the U.S. civil sector and civilian business methods than with inexorable globalization per se. Additional benefits accrue to the U.S. military from its exploitation of some of the same technological advances that have facilitated globalization. For instance, the U.S. development of long-range precision guided munitions and advanced communications and navigation systems have greatly reduced U.S. casualties while giving U.S. forces the ability to coordinate the operations of its forces and support units, collect information on its enemy, and inflict heavy enemy losses. The diffusion of the English language, Western culture, and Western concepts, probably improves the ability of U.S. forces and allies to communicate and operate worldwide.

Risks or Negative Implications

The primary risks of globalization identified by the Defense Science Board are as follows:⁶

- “Globalization’s most significant manifestation is the irresistible leveling effect it is having on the international military-technological environment in which DoD must compete.” Commercial technology (including space-related, surveillance, sensor, signal processing, simulation, and telecommunications technology) is nearly universally available.
- Using new technology, adversaries could exploit current U.S. weaknesses in power projection, disrupting deployment preparations, denying access to the theater, degrading U.S. force capabilities in the theater, raising the costs of U.S. intervention, and eroding U.S. military dominance.⁷
- Extensive use of the internet “places most of DoD’s digital activities and information within the cyber-reach of any and all who want to rapidly gather intelligence on the United States and/or who wish us harm.” Also DoD’s “ever-increasing reliance on commercial software – often developed offshore and/or by software engineers who owe little, if any allegiance to the United States – is likely to amplify DoD vulnerability to information operations....”⁸

⁶Defense Science Board, Final Report, pp. iii-vi, 7-26.

⁷According to the DSB, the vulnerabilities of current heavy, slow, short-range, U.S. general purpose forces are compounded by declining defense R&D investments which have “severely depressed U.S. military-technological innovation.” p. vi. See footnote 2 for trends in defense R&D.

⁸The risk is reportedly compounded by an ill-configured personnel security system which over-classifies information, emphasizes physical access control, and inadequately monitors (continued...)

- Foreign-owned firms (or potentially any individual) operating in the United States may transfer sensitive technology to a hostile power. Open channels of communication, trade, and travel facilitate such transfers.⁹
- U.S. defense industrial capabilities could be eroded if foreign firms buy U.S. firms and relocate facilities overseas.
- U.S. government influence in weapon system design could decrease if consolidations lead to a few large companies serving many nations.
- Arms sales may harm national political or security objectives because of increasing influence of economic considerations.

These risks are each closely associated with the global spread of dual-use technology and foreign participation in U.S. defense industry, except that the commercialization of foreign arms sales is probably more driven by the end of the Cold War, reduced U.S. military procurement, industry's profit motivation, DoD's desire to reduce unit acquisition costs through longer production runs, and the lack of international consensus on security threats and export controls.

Reduced controls on the export of dual-use technologies and globalized trade may facilitate the proliferation of nuclear, biological, and chemical weapons, and missile delivery systems, which will "be destabilizing and increase the risk of miscalculation and conflict that produces high casualties."¹⁰ Lack of caution in exporting conventional weapons and dual-use technology may also help regional powers build military capabilities that could be destabilizing and harmful to U.S. security, particularly if transfer decisions are based increasingly on business concerns rather than U.S. security interests. In the 1980s many Congressmen were concerned the United States was exporting too much technology to Iraq; in the last several years numerous Congressmen have criticized U.S. technology exports to China because of the implications for national security.

A direct threat to local security, if not national security, is generated by adverse public reaction to certain aspects and perceptions of globalization. To some, globalization smacks of cultural imperialism. José Bové and four of his colleagues in Peasant's Confederation destroyed a McDonalds restaurant in France in a protest against capitalist globalization.¹¹ Large groups demonstrated against globalization at the World Trade Organization meeting in Seattle in November 1999, the World Bank/IMF meetings in Washington, D.C. in April 2000 and in Prague in September

⁸(...continued)

personnel and unclassified, but critical, information. DSB, p. iv.

⁹The Defense Science Board concludes, "So long as the established security mechanisms are in place, the risks of unauthorized disclosure can be mitigated, if imperfectly." p. v. See note 13.

¹⁰*Global Trends 2015*, p. 40.

¹¹More specifically, the action was triggered by a U.S. embargo of French agricultural products in response to an EU refusal to import U.S. meat from cattle treated with hormones.

2000, the presidential inauguration in Washington in January 2001, the Summit of the Americas in Quebec in April 2001, and in several South American cities. The Seattle demonstration was particularly disorderly. These demonstrations can lead to riots and could be exploited by terrorist groups. Some riots in the United States have been very destructive but none in recent history were taken over by revolutionary groups or threatened national integrity.

Governments have also attempted to defend their countries from foreign cultural and economic “invasion.” Many have tried to curb the influence of American music, motion pictures, television, printed material, alcoholic beverages, and even clothing. China relented after its Cultural Revolution, but some Islamic countries remain adamant. France tries to protect its language. Resistance to the presence of American troops in strategically located countries is another security challenge somewhat related to globalization.

The increased involvement of multinational companies in the U.S. defense sector, suggests a broader risk. Some of these companies are positioned to exert a great deal of influence on U.S. policies through lobbying and election campaign contributions. The views of these companies regarding issues such as force structure, acquisition policy, research, export controls, and sanctions could be based more on multinational profit considerations than on fundamental notions of U.S. security.¹² If these effects of globalization continue, the U.S. government may become less able to use industry to influence foreign countries, and industry may be more able to use the U.S. government to support its commercial interests. Without consensus on a clear security threat, the National Intelligence Council predicts “the United States will have difficulty drawing on its economic prowess to advance its foreign policy agenda.”¹³ On the other hand, some authors contend globalization is not significantly weakening sovereignty or state control. These observers believe that even though national corporations, national currencies, and national citizenship may have eroded, states still maintain their physical borders, and the governments of economically advanced countries are more heavily involved in national economies than they were 50 years ago.¹⁴ Others note that campaign finance reforms currently being considered in Congress may moderate corporate influence on government policies.

Options to Maximize Benefits and Minimize Problems

Because globalization is sometimes said to be a “fact,” not a choice or policy option, it can be used to argue the futility of certain government actions, or to justify

¹²*Global Trends 2015* predicted business firms and nonprofit organizations will exercise increasing influence in national and international affairs. States will remain dominant but will have much less control over flows of information, technology, finances, weapons, people, and disease. p. 8. See also p. 26 of the report.

¹³*Ibid.*, p. 10.

¹⁴“Sovereignty,” *Foreign Policy*, Jan-Feb 2001, [<http://www.foreignpolicy.com>].

inaction. But policy choices clearly play a role in the way globalization affects security.

The Defense Science Board suggests the United States should maintain its military dominance, in the face of global technology leveling, primarily by strengthening essential U.S. military capabilities. In its view, modernization efforts should rely on the exploitation of commercial products and services. While continuing to protect essential defense technology (particularly system integration capabilities) from compromise and hostile exploitation, the country should de-emphasize technology protection as a means of preserving dominance. The Board suggests DoD should identify and mitigate its vulnerabilities arising from its use of commercial software and the globalization of information technology, fixing responsibilities for information systems integrity in the acquisition process and in operations. To aid in determining which technologies are widely available and therefore difficult to control, and in identifying potential foreign sources of useful information, the Board recommended that DoD maintain a global database of militarily relevant technologies and capabilities.

In its report, the Board also recommends measures to facilitate transnational (particularly transatlantic) defense industrial collaboration and integration. It says DoD should be open to “cross-border defense industrial linkages that enhance U.S. security, interoperability with potential coalition partners, and competition in defense markets.” The U.S. government, in the Board’s view, should also facilitate defense exports and foreign direct investment in the U.S. defense sector.¹⁵ It also recommended less emphasis on personnel security clearances and the classification of large amounts of information, focusing instead on the security-related behavior of people in sensitive positions, the need-to-know, and the protection of particularly sensitive information and information systems whether they are classified or not.¹⁶ The DoD Strategic Studies Group did not disagree with the Board’s recommendations and added detailed suggestions for enhancing information and personnel security.¹⁷

The Center for Strategic and Budgetary Assessments has proposed a somewhat different approach for reforming the newly consolidated defense industry so that it can respond to emerging challenges and uncertainty created by technology diffusion and globalization of the defense industrial base. U.S. defense industries should probably, according to the Center, maintain the skilled design teams and computer-assisted processes for architecture integration – creating a wide variety of products and systems of systems. The industries should also maintain the ability to apply available technology to military systems quickly so that the military can shape its acquisitions to developing needs and avoid large quantities of unneeded equipment. In case the

¹⁵Defense Science Board, pp. xii and 48. Increasing foreign arms sales and foreign direct investment would stimulate globalization with its implied benefits but also its risks. Congressman Jim Gibbons and Senator Robert Bennett recently expressed concern about foreign corporations buying federally funded companies that work on highly classified material. *Space News*, Feb. 19, 2001, p. 17

¹⁶Defense Science Board, pp. vii-xiii, 31-51.

¹⁷Secretary of Defense Strategic Studies Group IV, *1999 Final Report, Premises for Policy: Maintaining Military Superiority in the 21st Century*.

United States is unable to terminate some future conflict within a few days or weeks, the Center suggests the U.S. defense industrial base must find ways to hedge against the denial of offshore (globalized) industrial support.¹⁸

The Center made additional suggestions for maintaining the strength and innovative capabilities of the defense sector as it is further consolidated and globalized and as competition within the defense budget grows. The Defense Department should identify the areas of technology in which research and development will be critical and efficient. R&D should be focused more on science and the technology of several new weapons systems, rather than on the expensive engineering and manufacturing development to modify older systems. Defense firms should be encouraged to use Independent Research and Development (IRD) funds to pursue new, innovative capabilities.¹⁹ To help the financial health of defense industries, the Center suggested DoD consider sharing cost savings that industries realize through greater efficiencies and also increasing progress payments in the early phases of the development cycle. To help maintain a skilled workforce at Boeing and Lockheed Martin, the Center suggested DoD might extend production of the F/A-18E/F and the F-16 Block 60 to cover the gap until Joint Strike Fighters are being produced, and might press the development of unmanned combat air vehicles. They believe that multi-year procurement contracts would add greater stability and predictability to military production. Increasing commonality of systems and subsystems, using more off-the-shelf technology, reducing underused production facilities and sharing the savings with industry could also benefit the health of the U.S. defense sector, in the view of the Center.²⁰

A number of diverse options for addressing the effects of globalization in addition to those suggested by the Defense Science Board include:

- Maintaining backup communications, fire control, and information systems, and developing systems that are less susceptible to jamming, intercept, and alteration
- Negotiating arms control and nonproliferation agreements to win international cooperation in observing norms in the development, testing, deployment, use, or transfer of particular weapons and technologies
- Maintaining core alliances with great regional powers, preserving and building military relationships with friendly second tier military powers, and avoiding military competition with other great regional powers²¹

¹⁸Kosiak, et al., pp. 54-55.

¹⁹DoD allows firms to count some of their privately funded R&D as an expense on the firms' on the firms' contracts for other DoD work under the IRD program.

²⁰*Ibid.*, pp. 54-58.

²¹Kosiak, et al., p. 59.

- Establishing a new division of labor among allied forces that will supplement dominant U.S. capabilities; help allies enhance their capabilities, and encourage them to assume a greater role in the common defense²²
- Further subsidizing U.S. defense industries to preclude the necessity for exporting particular weapon systems, as is done for missiles, bombers, submarines, anti-submarine warfare, stealth technology, reactive armor, and aircraft carriers,²³ and subsidizing defense workers to keep them from migrating to higher paying jobs²⁴
- Encouraging greater diversification and commercialization of defense industry allowing for less subsidization to a narrow group of producers
- Acquiring highly sensitive systems only from U.S., or only U.S. government sources²⁵
- Decreasing U.S. foreign military deployments to avoid their vulnerability – enhancing national security by forsaking hegemonic goals and international activism; increasing the emphasis on long range weapons and C4ISR system located in the United States or perhaps in space²⁶
- Or, increasing deployments and/or enhancing the survivability of overseas forces to ease the constraints on force projection; establishing a network of bases along the periphery of areas influenced by potential adversaries; a larger network of intermittently manned bases; or a system of mobile bases²⁷
- Aggressively using U.S. military force, economic strength, and “coercive diplomacy”²⁸ to counter emerging global threats to U.S. security and national interests, such as long-range missiles; nuclear, biological, and chemical weapons, cyber attacks, and narcotics²⁹

²²*Ibid.*, p. 60- 61.

²³Strategic Studies Group IV, p. 7.

²⁴Tonelson, Alan. *The Race to the Bottom*

²⁵*Ibid.*, p. 34.

²⁶Pfaff, William. “The Question of Hegemony,” *Foreign Affairs*, January/February 2001, pp. 221-232; Kosiak, p 66. C4ISR refers to Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance.

²⁷Defense Science Board, p. 25, discusses potential difficulty gaining access to theaters but does not recommend maintaining larger numbers of troops abroad. Kosiak, et al., p. 63 - 65.

²⁸Lake, Anthony. *6 Nightmares: Real Threats in a Dangerous World and How America Can Meet Them*, Little Brown, 2000, reviewed by Chris Lehman, *Washington Post Book World*, January 21, 2001, pp. 4-5.

²⁹Rumsfeld, Donald H. Testimony before the Senate Committee on Armed Services, confirmation hearing, January 11, 2001.

- Reversing some past decisions that have reduced DoD R&D programs and that have liberalized controls on exports of militarily useful goods to adversarial countries,³⁰ and allowed foreign ownership of U.S. defense industries.

While there is divergence on the nature of globalization and its effects on security, there is even greater divergence on proper policies to manage globalization. What is good for a large multinational corporation may or may not be good for U.S. national security. It is widely held that it is beneficial to U.S. security to help the economic modernization of even our adversaries because that may lead to political liberalization and international responsibility. However, few would suggest we help adversaries modernize their military capabilities. Congress may wish to examine carefully policies proposed in the name of globalization for their security implications as well as business and political implications.

³⁰S. 149, The Export Administration Act of 2001, attempts to strike a new balance between security and economic objectives.

