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PREFACE

The *Industry Trade and Technology Review (ITTR)* is a periodic staff publication of the Office of Industries, U.S. International Trade Commission. The opinions and conclusions contained in this report are those of the authors and are not the views of the Commission as a whole or of any individual Commissioner. The report provides analysis of important issues and insights regarding the global position of U.S. industries, the technological competitiveness of the United States, and how trade and policy developments affect U.S. business.

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This is the final issue of the *Industry Trade and Technology Review (ITTR)* in its current format. In the future, the *ITTR* (Office of Industries) and the *International Economic Review* (Office of Economics) will be merged into a new publication that will provide readers with a single source for articles on industry and economic analysis related to international trade. This new publication will debut by spring 2006.

The *ITTR*'s "Key Performance Indicators" (appendix A) will continue to be updated on a quarterly basis and posted to the Commission's Internet site, linked to the "Industry and Economic Analysis" page (http://www.usitc.gov/ind_econ_ana/pro_ser.htm).

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WTO agricultural trade negotiations: An update
Steel sector explores E-Commerce although wary of quick transition
Mexico's emergence as a global automotive production center drives trade and investment

January 2001

U.S. metal mining: Recent trends and uncertainty discourage domestic exploration and investment
Factors affecting the competitive position of the Indian software industry
Manufacturing strategies of the North American major household appliance industry

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Apparel: Andean countries seek parity with Caribbean Basin countries to remain competitive in the U.S. market
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Commercialization of hybrid automobiles: Prospective demand for light metals

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Production-sharing update: Developments in 2000

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U.S. primary aluminum: Power costs and market conditions could cause long-term restructuring

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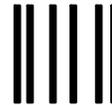
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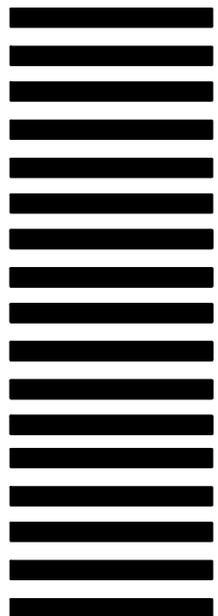
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Customs Facilitation: Global Initiatives and the Progress of WTO Negotiations¹

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Two recent U.S. International Trade Commission (Commission) studies find that customs impediments have a large adverse impact on firms involved in the global movement of goods. Trade-impeding measures related to customs clearance include (1) weight and value restrictions; (2) time-consuming documentation requirements that are, in part, the result of inefficient or outdated processing equipment; (3) burdensome inspection requirements; and (4) regulations that limit the ability of firms to provide customs brokerage services. In some countries, customs clearance impediments have been reduced through the implementation of directives issued by multilateral bodies and by such arrangements as the World Customs Organization and the Asia-Pacific Economic Cooperation forum. Trade negotiations on a bilateral or multilateral basis may further facilitate customs processing. For example, recently signed U.S. free trade agreements contain binding customs provisions, and World Trade Organization negotiations on trade facilitation, launched in August 2004, are intended to improve customs-related articles of the General Agreement on Tariffs and Trade. The results of Commission analysis show that such efforts, in some cases, may improve merchandise trade flows by significant margins. This article begins with an overview of customs-related impediments, then examines customs facilitation initiatives currently underway, and concludes by reporting the benefits of improving customs processing on merchandise trade flows.

Although customs administrations around the world have the common goal of clearing goods, customs policies vary widely according to government priorities. In many developing countries, for example, governments may view customs administrations as revenue collectors, placing priority on duty collection processes. Other countries may view customs as a defense against illicit drugs or terrorism, placing procedural emphasis on security measures. The result is a complex web of nonuniform regulations that in some countries may require as many as 25 to 30 different steps to clear.

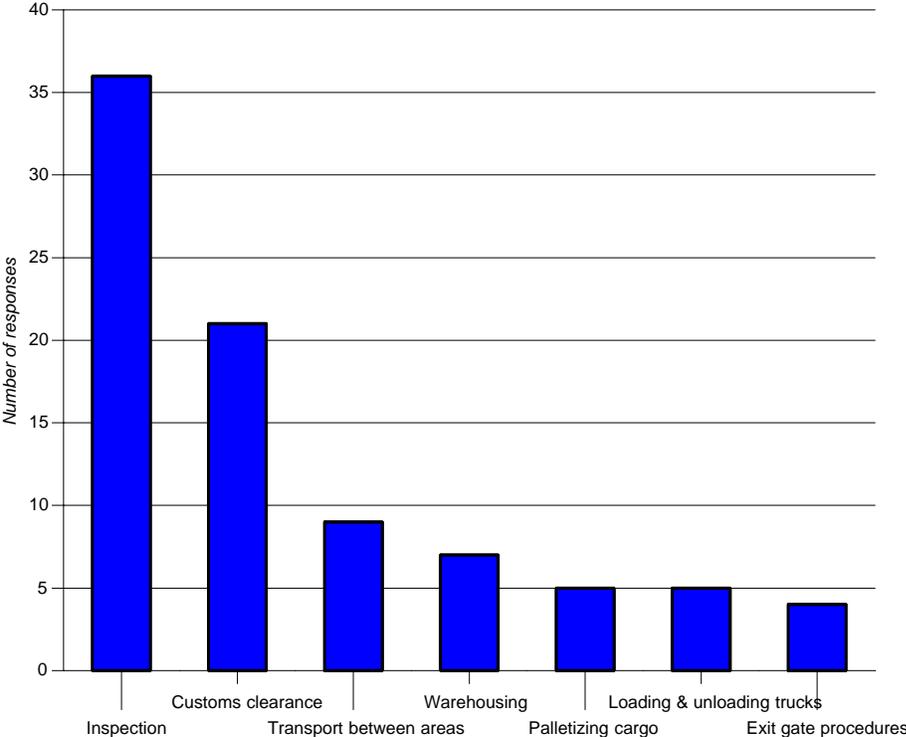
Customs facilitation, a component of trade facilitation, involves simplifying and standardizing the procedures for clearing goods at the border or port of entry. Government support for customs facilitation has increased as shippers' complaints about slow processing times and burdensome requirements have risen in volume. Such complaints have grown in concert with globalization, which increases both the volume of trade and destinations of traded goods, and have been heard from both developed and developing countries alike. Reportedly, shippers in developed countries tend to complain about outdated processing systems that cannot accommodate large trade volumes, whereas shippers in developing countries tend to cite complex technical requirements as being "beyond their technical competence" and being financially burdensome.

* The views expressed in this article are those of the author. They are not the views of the U.S. International Trade Commission (USITC) as a whole or of any individual Commissioner. The author is an international trade analyst in the Services Division, Office of Industries.

Customs-related Trade Impediments

Firms involved in the global movement of goods, such as logistic service providers and express delivery firms, encounter a range of impediments in the global supply of their service. The most significant of these are border clearance procedures, including customs processing and inspection, as reported to the Commission during industry interviews and in responses to a supplier survey developed in connection with the Commission’s investigation on logistic services.² Further, in the survey, customs clearance and inspection were identified as the most time-consuming procedures related to air and maritime cargo transport (figures 1 and 2).

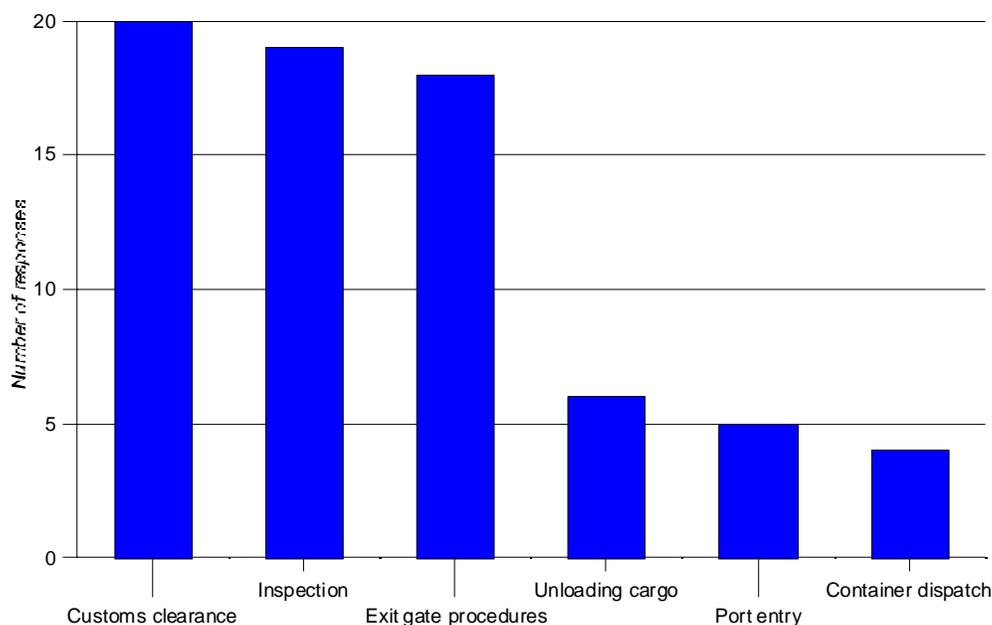
Figure 1
Airport cargo procedures: Number of responses characterizing procedure as “slow”¹



¹ Questionnaire respondents for the Commission study on logistic services were asked to rate airport cargo procedures on a scale of 1 to 5, with “1” representing “very fast” and “5” representing “slow.” Chapter 5 of the Commission study further discusses the results of this question.

Source: Compiled from responses to Commission questionnaires.

Figure 2
Seaport cargo procedures: Number of responses characterizing procedures as “slow”¹



¹ Questionnaire respondents for the Commission study on logistic services were asked to rate seaport cargo procedures on a scale of 1 to 5, with “1” representing “very fast” and “5” representing “slow.” Chapter 5 of the Commission study further discusses the results of this question.

Source: Compiled from responses to Commission questionnaires.

In countries using information technologies such as electronic data interchange (EDI),³ improved processing efficiency has reduced import costs.⁴ However, many countries have not modernized their information systems, slowing down document processing and delaying the clearance process. For example, Brazil, India, and Thailand maintain paper documentation requirements in some instances; and in such countries, as China and Indonesia, document submission requirements may be excessive or costly.⁵ Other customs-related impediments include limited hours of operation at customs facilities, discriminatory treatment against foreign carriers, security-related delays, inconsistent application of regulations at different ports within a country, and limitations on the ability of foreign firms to provide customs brokerage services.⁶

Customs Facilitation Initiatives

Several initiatives to simplify customs procedures are presently underway.⁷ The World Customs Organization (WCO) regularly issues nonbinding recommendations about (1) customs facilitation to its members and sponsors and about (2) training for customs officials in developing countries. In the Asia-Pacific Economic Cooperation (APEC) forum, trade facilitation (including customs facilitation) has been on the agenda since the organization was established in 1989.⁸ Recently signed U.S. free trade agreements (FTAs) contain binding customs provisions,⁹ and World Trade Organization (WTO) negotiations on trade facilitation, launched in August 2004, are intended to improve customs-related articles in the General Agreement on Tariffs and Trade (GATT). This section explores these initiatives in greater detail.

World Customs Organization

The Brussels-based WCO recognizes customs facilitation as important to trade and economic development. The organization notes that custom administrations must balance government goals, such as national security, revenue collection, and regulatory compliance, with business interests, such as efficient processing. The WCO has drafted a number of binding international Conventions designed to help members balance these competing interests. However, recently drafted Conventions that would facilitate the customs process have not yet entered into force. If ratified, the revised Kyoto Convention¹⁰ would, among other things, simplify and harmonize customs procedures by (1) endorsing the use of information technology, (2) requiring new control techniques, and (3) using risk analysis for targeting high-risk shipments;¹¹ and the Johannesburg Convention, adopted by the WCO in June 2003, would promote assistance among customs administrations and call for preshipment inspection. In addition to its binding Conventions, the WCO regularly issues nonbinding recommendations. Countries or economic unions that adopt WCO recommendations are expected to show commitment to their implementation.¹² WCO recommendations are intended to promote cooperation among customs administrations, harmonize practices, facilitate trade, promote information technology use, simplify documentation requirements, and expedite the implementation of Conventions.¹³

Asia-Pacific Economic Cooperation Forum

Although, APEC has recognized the need to facilitate the movement of goods since its founding, APEC endorsed an action plan in 1994 that broadly called for trade and investment liberalization within the region by 2020 (the Bogor Declaration).¹⁴ The Bogor Declaration recognized customs facilitation as necessary to realizing the full benefits of trade liberalization.¹⁵ Accordingly, the APEC 2001 meeting in Shanghai, China set a goal of reducing trade transaction costs within the region by 5 percent within 5 years.¹⁶ This goal was incorporated into the Trade Facilitation Action Plan (TFAP), which also addressed technical standards, business mobility, and electronic commerce.¹⁷ With respect to customs procedures, the APEC subcommittee on customs is working to achieve the 5-percent reduction goal through a series of Collective Action Plans (CAPs), which are summarized in table 1.¹⁸

Table 1
Summary and status of Asia-Pacific Economic Cooperation (APEC) Collective Action Plans (CAPs) on Customs, 2004

CAP	Summary of plan	Implementation status
Harmonization of Tariff Structure with Harmonized Schedule (HS) Convention	Ensure all APEC members apply the HS Convention in an accurate, consistent and uniform manner.	Completed
Advanced Classification Ruling System	Establish simplified procedures for pre-arrival classification of information prior to importation, thereby enhancing predictability.	Completed by 16 APEC members
Adoption of UN/EDIFACT Paperless Trading	Encourage paperless submission of documents through the adoption of appropriate electronic technologies and procedures.	(¹)
Customs-Business Partnership	Enhance cooperation and communication between Customs and the business sector.	(¹)
Express Consignment Clearance	Implement the World Customs Organization's (WCO's) Guidelines on Express Consignment and International Standards of Customs Clearance of Express Goods.	Implemented by 18 APEC members
Risk Management Techniques	Support the implementation of risk management practices to facilitate legitimate trade and travel, while maintaining effective Customs control.	Completed by 18 APEC members

¹ Not available.

Source: APEC, Sub-Committee on Customs Procedures, Collective Action Plans, found at http://www.apec.org/apec/apec_groups/committees/committee_on_trade/sub-committee_on_customs.html, retrieved Mar. 15, 2005.

U.S. Free Trade Agreements

U.S. FTAs contain provisions that may facilitate the movement of goods through customs. All of the FTAs signed to date contain provisions on customs administration, which seek to ensure the timely release of goods and to enhance transparency by, among other things, requiring prompt publication of customs rules.¹⁹ In addition, FTA provisions seek to facilitate the clearance process through greater use of information technology, to improve risk management and cooperation among parties, and to establish procedures for resolving disputes. Additional measures for express shipments are to be adopted by each party. These measures facilitate express shipment processing by enabling electronic submission of documents; pre-arrival processing of information; submission of a single manifest covering all goods in an express shipment; and minimizing release documentation, where possible.²⁰

World Trade Organization

In July 2004, trade facilitation was incorporated into the WTO Doha Development Agenda. In November 2004, WTO delegates reached agreement on the negotiating modalities and established a work plan.²¹ The negotiations seek to clarify and improve various aspects of customs-related GATT articles,²² with

special consideration for (1) technical assistance; (2) cooperation between relevant authorities; (3) special and differential treatment for developing and least developed countries; (4) the needs of least developed countries; (5) negotiating priorities and the financial costs associated with implementation; and (6) working with international organizations that have experience with trade facilitation.²³

In February 2005, the United States and several other WTO member countries submitted initial trade facilitation negotiating proposals. The United States submitted four proposals, covering (1) advanced rulings,²⁴ (2) Internet publication, (3) fees, and (4) express shipments. Each U.S. proposal provides anecdotes on country experience, estimates the costs involved with implementation, contains language on special and differential treatment and technical assistance for countries in need, and provides guidance on “next steps” in the negotiating process.²⁵ Proposals from other countries touched on many of the elements outlined by the United States. Specifically, Canada’s proposal addressed advanced rulings;²⁶ Japan²⁷ and Korea²⁸ addressed advanced rulings and publication in their respective proposals; and the European Union²⁹ addressed publication. Chinese Taipei, the European Union, Japan, and Korea also addressed judicial rulings and appeals procedures; trader notification and consultation; and establishment of inquiry points, issues which the United States has indicated will be the subject of forthcoming proposals.

Benefits of Customs Facilitation

As identified in the Commission's investigation on express delivery services, customs facilitation likely would reduce shipment costs, improve delivery times, and increase trade flows. That report suggests that poor customs environments inhibit trade and that modest improvements in customs environments would likely result in increased U.S. exports to some countries. Other literature suggests similar benefits. For example, a 2004 World Bank research paper found that improved customs procedures would result in increased exports globally. A 2002 APEC-commissioned study found that trade facilitation would increase exports among member economies by \$280 billion. The Swedish Trade Procedures Council (SWEPRO) in 2002 estimated that complex international trade procedures result in a cost of approximately \$325 billion, or 2.5 percent of the value of traded goods, suggesting a considerable gain from facilitation. Table 2 summarizes the major findings in some of the economic literature on trade and customs facilitation.

In addition to the literature summarized in table 2, the recent Commission study on logistic services finds that U.S. merchandise exports and foreign merchandise exports transhipped through the United States are sensitive to the speed and cost of customs processing, one component of logistic services, in the importing country.³⁰ Lower levels of impediments in the customs clearance process are associated with higher U.S. merchandise exports. Table 3 shows that improving customs quality in importing countries can lead to significant increases in U.S. exports, especially in countries that have the greatest degree of impediments in the customs clearance process, as reported to the Commission.³¹

Table 2
Summary of findings on the benefits of trade facilitation

Author(s)	Study title	Benefits from facilitation
U.S. International Trade Commission (2004)	<i>Express Delivery Services: Competitive Conditions Facing U.S.-based Firms in Foreign Markets</i>	As much as an estimated 20-percent increase in U.S. exports to some countries.
Wilson, Mann, et al., Asia-Pacific Economic Cooperation (APEC) forum (2002)	<i>Trade Facilitation: A Development Perspective in the Asia-Pacific Region</i>	\$280 billion in increased exports among APEC members.
Wilson, Mann, and Otsuki (World Bank: 2004)	<i>Assessing the Potential Benefit of Trade Facilitation: A Global Perspective</i>	Increase in trade flows to all regions; \$377-billion gain in trade flows of manufactured goods, worldwide.
APEC (2002)	<i>Toward the Shanghai Goal: Implementing the APEC Trade Facilitation Action Plan</i>	Potential income gains of \$64 billion within APEC from "full" compliance with trade facilitation guidelines, with greatest gain to developing countries.
Hummels (Purdue University: 2001)	<i>Time as a Trade Barrier</i>	Each day saved in shipping, in part as a result of faster customs clearance, equals 0.8-percent ad valorem cost reduction for manufactured goods.

Source: Compiled by the Commission.

Table 3
Simulated effect of improvement in customs quality on total U.S. exports¹

Increase of less than 10 percent	10- to 20-percent increase	21-percent or greater increase
Argentina	China	Brazil
Chile	Costa Rica	Bolivia
El Salvador	Czech Republic	Bulgaria
India	Greece	Colombia
Mexico	Philippines	Ecuador
Poland	Thailand	Iceland
		Indonesia
		Peru
		Russia
		Ukraine
		Venezuela
		Vietnam

¹ These estimates are intended solely to illustrate the implications of the econometric analysis, by simulating the effect of an improvement in the airport (customs) score halfway to the median score, for countries with scores below the median. They are not intended to estimate the effects of any specific or proposed reform in the countries in question. The simulations are performed by changing the scores for one country at a time, holding all other attributes of that country, as well as other countries, constant. Thus, they do not capture any interaction effects that might arise from simultaneously improving the logistics environment in several countries.

Source: Compiled by the Commission.

Summary

A number of initiatives are presently underway that may reduce the severity of impediments in the customs clearance process. If ratified, the WCO-revised Kyoto Convention would likely improve customs processing in member countries by, among other things, endorsing the use of information technologies; the APEC has advanced its long-standing commitment to customs facilitation by setting a goal of reducing transaction costs within the region by 5 percent by 2006; recently signed U.S. FTAs contain provisions that seek to ensure the timely release of goods and to enhance transparency in customs processing; and the WTO recently launched customs facilitation negotiations that would improve the relevant GATT articles. Studies show that improvements in the customs clearance process may improve trade flows. One analysis, for example, indicates that exports among APEC members may increase by a value of \$280 billion upon facilitation of customs processing. Another study shows that trade flows of manufactured goods may increase worldwide by \$377 billion; and two Commission studies find that facilitating customs procedures would likely increase U.S. exports to some countries. The collective economic literature suggests that working toward achieving customs facilitation can accrue to the benefit of developing and developed countries alike as firms and shippers gain efficiencies and reduce the transactions costs of conducting business. ■

ENDNOTES

1. Adapted from two U.S. International Trade Commission (USITC) studies: USITC, *Express Delivery Services: Competitive Conditions Facing U.S.-based firms in Foreign Markets*, Inv. No. 332-456, pub. 3678, Apr. 2004; and USITC, *Logistic Services: An Overview of the Global Market and Potential Effects of Removing Trade Impediments*, Inv. No. 332-463, pub. 3770, May 2005.
2. USITC, *Logistic Services*, p. 3-2.
3. EDI helps firms to improve efficiency and reduce costs by enabling companies to submit documentation electronically, thereby reducing the number of steps necessary to exchange information.
4. USITC, *Logistic Services*, p. 3-2.
5. Ibid.
6. Ibid., pp. 3-11 and 3-13; and *Express Delivery Services*, p. C-6.
7. This discussion focuses on initiatives that benefit U.S. exports. U.S. imports may benefit from the development of the International Trade Data System (ITDS) in the United States, which is intended to be an integrated trade data system shared by all relevant federal agencies. The system would allow for the electronic collection and distribution of trade-related information, providing a single entry point for U.S. imports. For more information on the ITDS, see USITC, *Simplification of the Harmonized Tariff System of the United States*, Inv. 332-388, pub. 3318, June 2000.
8. APEC, "Toward the Shanghai Goal: Implementing the APCE Trade Facilitation Action Plan," *Asia Pacific Foundation Canada*, 2002, p. 3.
9. The U.S. FTAs signed to date are the U.S.-Singapore FTA, Jan. 15, 2003; the U.S.-Chile FTA, June 6, 2003; the U.S.-Australia FTA, May 18, 2004; the U.S.-Central America FTA, May 28, 2004; the U.S.-Morocco FTA, June 14, 2004; the Dominican Republic accession to the U.S.-Central America FTA, Aug. 5, 2004; and the U.S.-Bahrain FTA, Sept. 14, 2004.
10. In April 2004, the European Community and 12 of its member states acceded to the revised Kyoto Convention, signed on June 26, 1999, bringing the total number of Contracting Parties to 31. The Convention needs 9 more countries to accede for it to enter into force. The United States is not a member of the Convention. WCO, "The European Community (EC) and 12 of its Member States accede to the revised Kyoto Convention," press release, Apr. 30, 2004, found at <http://www.wcoomd.org/ie/En/Press/press.html>, retrieved Dec. 22, 2004.
11. "World Customs Organization Adopts Revised Kyoto Convention," *U.S. Customs Today*, Mar. 2000, found at <http://www.cbp.gov/custoday/mar2000/world.htm>, retrieved Dec. 23, 2004.
12. WCO, "The Nature of WCO Recommendations and the Procedure for Their Acceptance," found at <http://www.wcoomd.org/ie/En/Recommendations/recommendations.html>, retrieved Dec. 22, 2004.
13. WCO, "Recommendations," found at http://www.wcoomd.org/ie/En/Topics_Issues/topics_issues.html, retrieved Dec. 23, 2004.
14. Hadi Soesastro, Marcus Noland, Donald K. Emmerson, "The Jakarta-Bogor APEC Summit: A Vision for 2020," *Shorenstein Reports on Contemporary East Asia*, No. 3, Jan. 1995, found at <http://ieas.berkeley.edu/shorenstein/1995.01.html>, retrieved Feb. 18, 2005.
15. APEC, "Toward the Shanghai Goal," p. 3.
16. APEC, "APEC's Trade Facilitation Action Plan: A Midterm Assessment," *A Report Prepared for the APEC Committee on Trade and Investment*, Oct. 18, 2004, p. 3.
17. Ibid.
18. APEC, *Sub-committee on Customs Procedures, Collective Action Plans*, found at http://www.apecsec.org.sg/apec/apec_groups/committees/committee_on_trade/sub-committee_on_customs.html, retrieved Dec. 23, 2004.
19. Industry representative, telephone interview with USITC staff, Washington DC, Aug. 6, 2004.
20. "Customs Administration," chapters in various FTAs, found at Internet address <http://www.ustr.gov/>, retrieved Aug. 6, 2004.
21. WTO, "WTO Lunches Negotiations on Trade Facilitation," WTO News, Nov. 15, 2004, found at <http://www.wto.org/>, retrieved Dec. 10, 2004.
22. These provisions are found in Articles V (freedom of transit), VIII (fees and formalities), and X (publication and administration of trade regulations). WTO, "The General Agreement on Tariffs and Trade (GATT 1994)," found at <http://www.wto.org>, retrieved Dec. 10, 2004.
23. WTO, "WTO Launches Negotiations on Trade Facilitation."

24. Advanced rulings are binding decisions made by customs authorities related to classification, procedures, or other customs matters in advance of an item being shipped to a country.
25. See WTO, "Communications from the United States," *Negotiating Group on Trade Facilitation*, TN/TF/W/11, 12, 13, 14, and 15, Feb. 4, 2005.
26. WTO, "Communication from Canada," *Negotiating Group on Trade Facilitation*, TN/TF/W/9, Jan. 31, 2005.
27. Japan, Mongolia, and Chinese Taipei submitted a joint proposal. WTO, "Communication from Japan, Mongolia, and the Separate Customs Territory of Taiwan, Penghu, Kinmen and Matsu," *Negotiating Group on Trade Facilitation*, TN/TF/W/8, Jan. 28, 2005.
28. WTO, "Communication from Korea," *Negotiating Group on Trade Facilitation*, TN/TF/W/7, Jan. 27, 2005.
29. WTO, "Communication from the European Communities and its Member States," *Negotiating Group on Trade Facilitation*, TN/TF/W/6, Jan. 28, 2005.
30. USITC, *Logistic Services*, p. ix.
31. For a complete discussion of the econometric analysis performed, see USITC, *Logistic Services*, Appendix C.

International Markets for Environmental Insurance

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Environmental insurance is designed to protect policy holders from unexpected environmental liability obligations. The market is established in the United States and is starting to develop overseas as well. The environmental insurance market is driven by environmental regulations that incorporate the “polluter pays” principle. In the United States, the Resource Conservation and Recovery and Comprehensive Environmental Response, Compensation and Liability Acts have led to a market focused on insuring against the costs of remediation of both past and future land and water pollution. The European Union (EU) Environmental Liability Directive is creating a market focused on insuring against the costs of future environmental damage to land, water, and biodiversity. This article examines the types and benefits of existing, environmental insurance products, developments in the U.S. and foreign markets, potential application of environmental insurance to risks of natural resource and biodiversity damage, and growth prospects for such insurance.

Although the total annual premiums for environmental insurance,¹ estimated at approximately \$2.75 billion worldwide, are small compared with premiums in other insurance lines, the 2004 market for environmental liability insurance grew by more than 10 percent compared with the 2003 market total.² Furthermore, the existence and use of environmental insurance have significant effects on other areas of the economy, including (1) redevelopment prospects for “brownfields” real estate sites³ and (2) environmental remediation of polluted land. Regulators and insurers are currently exploring the potential of environmental insurance to aid in the preservation of biodiversity and to reduce damage to natural resources as well. The market is well developed in the United States, with U.S. premiums accounting for almost \$2 billion of the global market. In Europe and elsewhere overseas, the market is just emerging.

Background

Environmental insurance originated in the United States, in response chiefly to the liability obligations imposed on polluters by environmental regulations that incorporate the “polluter pays” principle.⁴ These liability obligations primarily stem from two laws providing for the remediation of polluted land and water: the 1976 Resource Conservation and Recovery Act (RCRA), and the 1980 Comprehensive Environmental Response, Compensation and Liability Act (CERCLA, also known as “Superfund”). Consequently, environmental insurance in the United States has focused on allowing liability holders to insure against the risk of an unexpected, but legally mandated cleanup. More recently, insurance products have been developed to assist in limiting the costs of an unexpected cleanup, allowing property owners to mitigate the risks of cleanup cost overruns.

* The views expressed in this article are those of the author. They are not the views of the U.S. International Trade Commission (USITC) as a whole or of any individual Commissioner. The author is an international trade analyst in the Services Division, Office of Industries.

In 1986, faced with large losses following the implementation of the liability regulations in the CERCLA and RCRA laws,⁵ the U.S. insurance industry began to exclude the coverage of environmental pollution and remediation from its model general liability policy. To fill the gap, several insurers started insuring pollution and other environmental risks through separate environmental insurance policies, specifically aimed at managing risks related to environmental liabilities. This specialized insurance has become an integral part of an overall risk management strategy for many corporations, although industry estimates suggest that market penetration of environmental insurance is only 10 percent of potential customers.⁶ The existence of specialized insurance designed to mitigate environmental liability risks can play an important role in encouraging site development on land with a high probability of such risks. Environmental insurance plays an important role in real estate transactions by managing the risk associated with an unexpected finding of site contamination after a transaction has been concluded. This role has been particularly important in the context of corporate mergers and acquisitions (M&As), which may involve a large number of sites for which environmental risk may be a factor, and too little time to conduct individual site assessments. Environmental insurance also has been instrumental in facilitating brownfields redevelopment in urban areas by allowing land developers to put a firm cost-cap on environmental remediation expenditures.

More recently, there has been interest in insuring against the risk of natural resource damage (NRD) that might extend beyond the boundaries of a specific property site, such as damage to national parks, protected wetlands, or endangered animal or plant species. More traditional environmental insurance products do not address this problem as well as they address more traditional soil and water remediation. So insurers are working to develop new products specific to NRD.⁷ One of the biggest problems involved in insuring against NRD is the difficulty of assigning a monetary figure to the damage inflicted on natural resources such as animals, fish stocks, or a unique landscape.⁸ This has recently taken on some urgency both in the United States and abroad. Under Superfund, polluters are liable for NRD claims as well as remediation costs, and the U.S. Environmental Protection Agency (EPA) has been pursuing those claims more aggressively in recent years. State governments also are taking action in this area. The New Jersey Department of Environmental Protection announced in 2004 that it would be pursuing about 4,000 NRD claims, and industry participants are watching closely to determine whether other states follow the New Jersey lead.⁹ In Europe, the recently enacted EU Directive on Environmental Liability¹⁰ is likely to create an instant market for such insurance products.

Types and Benefits of Environmental Insurance

Environmental insurance is available in several principal categories (table 1), although the categories have experienced some changes over the last several years as the market has evolved.¹¹

Table 1
Types of environmental insurance available in the U.S. market

Insurance type	Explanation
Pollution legal liability (PLL) insurance	The largest share of environmental insurance premiums. Protects the property owner from unexpected environmental cleanup costs, for a specified policy term, up to a specified monetary value. Designed to fill the gap created by the absolute pollution exclusion inserted in general liability insurance forms as of 1986.
Cost-cap/stop-loss insurance	Insures against cost overruns on a known environmental cleanup site. Claims are paid when remediation costs exceed an agreed upon target amount, which is generally set at 10 percent above the expected cleanup costs.
Contractors/consultants liability insurance	Insures contractors and environmental consultants against further environmental damage caused by the contractor during a remediation project. Insurance may be project-specific, or cover a contracting firm and its employees for all projects undertaken during a specific time period.
Secured creditor insurance/Lenders environmental protection insurance	Protects lenders against a borrower's default on a loan due to unexpected environmental problems at a property site. In most cases, this type of policy pays claims directly to the lender, equal to the lesser of either the cleanup costs or the balance of the loan.

Source: Compiled by Commission staff from information provided by the U.S. Environmental Protection Agency; the Environmental Risk Resources Association; and industry representatives.

Pollution legal liability insurance (PLL) is the most common form of environmental coverage and is directed at property owners. Policies are designed to insure against pollution-related losses due to “cleanup costs of unknown, pre-existing, or new conditions,” and third-party claims on property that the insured owns or operates.¹² This type of insurance protects against remediation costs and other costs arising from past and future use of a property. For instance, such insurance may provide coverage for a current property owner who finds that he is liable for environmental damage stemming from use by a previous owner, due to RCRA liability rules.¹³ PLL insurance also can address liability issues with regard to a real estate or M&A transaction, by assuring the buyer that unexpected environmental liabilities will be covered. In many cases in which environmental insurance is not used or is not available, unknown environmental liability concerns may discourage parties from concluding a real estate transaction.

Cleanup cost-cap/stop-loss insurance protects against cleanup costs on a particular project, such as a brownfields site, that could significantly exceed the projected budget, including cost overruns due to regulatory changes. Under such a policy, the property owner or the insurer contracts a site assessment, which generates an estimate of expected remediation costs. The policy trigger is generally set at 10 percent above the expected cost of remediation. If remediation costs exceed the trigger level, the insurer pays the additional costs, up to an agreed limit. As is the case for PLL insurance, cost-cap insurance allows investors greater certainty regarding the total extent of their liabilities, and can greatly improve a property owner's ability to sell a property with known environmental problems.¹⁴ In one survey of remediation executives, 50 percent ranked the availability of cost-cap insurance coverage as “crucial” or “very important” to their business.¹⁵

Contractors/consultants liability insurance is also available for environmental remediation contractors and other professionals such as architects, engineers, or construction managers, to insure against environmental damage that results from the actions of these parties or others involved in the remediation project. Such insurance is purchased either in connection with a particular remediation project, or by a contracting company to provide insurance over a specified time period. For instance, contractors'

environmental liability insurance would be particularly useful for a firm that performs asbestos removal at a number of different sites, where the insurance covers the risk that a contractor's actions will result in dispersal of asbestos into the atmosphere. The policy would generally cover the firm and all of its employees.¹⁶

Creditor's/lender's insurance can be purchased by bank lenders and others with a secured interest in a property can purchase coverage that pays claims in the event of a devaluation of the property caused by the discovery of previously unknown environmental damage, or in case the borrower defaults on a loan due to previously unforeseen environmental remediation costs. Under most of these policies, benefits are paid equal to the lesser of the cost of environmental remediation or the balance of the loan as of the date of the claim.¹⁷ Under the Massachusetts brownfields revitalization program, lenders purchasing such environmental insurance are eligible for a state grant of the lesser of either 25 percent of the insurance premium or \$25,000.¹⁸ However, industry representatives report a decline in the popularity of these policies due to lenders' concerns about their own liability in case of foreclosure on a loan. AIG, which holds the largest share of the environmental insurance market, pulled out of the market for this product in 2004.¹⁹

Environmental insurance provides several specific benefits. First, property owners receive increased certainty as to their maximum environmental liability costs, either for a specific site or for the corporation as a whole, including concerns regarding cost overruns. Corporations are able to assure their shareholders that liabilities identified on a corporation's balance sheet represent the entire potential liability, including any potential for future third-party claims related to environmental concerns. Environmental insurance may also provide potential balance sheet benefits by turning environmental liabilities into insurance assets.²⁰ Such benefits can help to pave the way for real estate transactions or M&As involving polluted sites, or financing of brownfields redevelopment by replacing the potentially open-ended costs of environmental liabilities with fixed insurance premiums.²¹

The U.S. Environmental Insurance Market

Industry estimates placed the size of the U.S. market for environmental insurance in the range of \$1.7 billion to \$2.0 billion in terms of premiums in 2003, compared to the 1999 premium estimate of \$400 million.²² Observers expect the rapid growth of the market to continue, as insurance agents and brokers, corporate customers, and other real estate market participants develop a greater understanding of the manner in which environmental insurance can help to bridge differences between parties to a real estate transaction.²³ However, the market for PLL insurance in particular may grow more slowly, as many of the highly polluted Superfund sites have been cleaned up, and improved environmental practices have reduced the number of potential new industrial sites in need of remediation.²⁴ At the same time, the level of competition in the environmental insurance market shows signs of increasing, as firms enter the market and develop standardized insurance forms, which contribute to ease of use.²⁵ As of 2003, eight large firms (AIG, Chubb, XL, Zurich, ACE, Gulf, Arch, and Liberty)²⁶ provided the bulk of the coverage in the U.S. market, with AIG reportedly underwriting more than one-half of the total.²⁷ In addition, two new underwriters, Quanta Capital Holdings and Hudson Programs, have entered the U.S. market since 2003.²⁸

Developments in the U.S. Market

An important development in the environmental insurance field is the emerging concept of “risk-based decision making” in remediation projects. Under this concept, the goal of a remediation project should be to reduce the level of pollutants at each site to an acceptable level of risk of adverse consequences, such as a threat to human health. The acceptable level depends on the particular pollutants involved and the anticipated use of the site. If the site is intended for industrial use, remediation requirements would be less strict than if the site were planned for residential use. After a site is remediated to an acceptable level for its planned use, it can be sold with a deed restriction identifying prohibited uses due to environmental contamination. This is in contrast to earlier standards, under which pollutants were required to be cleaned up to a “nondetect” level, regardless of the circumstances surrounding the pollutants or the type of redevelopment planned for the site.²⁹ This new risk assessment approach by regulators has encouraged developers to consider brownfields sites that were once considered to be irreparably contaminated. A similar approach has emerged in the United Kingdom, where regulators apply a “suitable for use” standard.³⁰

Cost-cap policies, as described above, are essential to the brownfields redevelopment process because they provide a clear limit to the financial risks borne by environmental contractors and property owners.³¹ Without regulators’ increasing acceptance of risk-based decision making policies, it would not be possible for the property owner or the insurer to definitively understand their liability limits. For this reason, the new risk-based decision making process, and the risk-transfer insurance policies that have grown out of it, are seen as essential elements in the growth of the private-sector brownfields remediation market.³²

The passage of the Sarbanes-Oxley Act in 2002 has contributed to the development of the environmental insurance market by encouraging corporations to better assess and publicly disclose the full range of their liabilities, including environmental liabilities. In particular, under the provisions of Sarbanes-Oxley, failure to publicly disclose environmental (or other) liabilities may lead to personal liability on the part of a company’s officers and directors, thus exposing them to lawsuits brought by shareholders. Moreover, most directors and officers (D&O) liability insurance excludes coverage of environment-related claims. This new emphasis on full reporting of corporate environmental liabilities has encouraged corporations to address such liabilities by transferring much of their risk to insurance companies, through policies aimed specifically at environmental liability.³³

An emerging strategy to transfer environmental risk is a liability transfer or buyout. In contrast to a standard PLL policy, under which an insurer agrees to accept an environmental risk up to an agreed policy limit, a liability transfer allows the original property owner to entirely remove the risk from its balance sheet by transferring it to a third party for a one-time fee. The third party then arranges its own environmental insurance to manage the risk. Such a transaction requires regulatory approval, which is generally contingent on the third party assuring regulators that it has the financial capacity to fund any needed environmental remediation. Such assurances may be accomplished through posting of a bond or acquiring an environmental insurance policy from a well-funded insurance company.³⁴ This type of liability transfer enables corporations to reduce their overall liabilities for a fixed price, thus improving their balance sheets. Liability transfer may also yield significant benefits as part of an M&A transaction, where the acquiring company is unwilling to take on an environmental liability, even when the site has been insured.³⁵ In one recent example, Tecumseh Products Co. signed an “Exit Strategy” contract valued at \$15.7 million to transfer its environmental liability related to the Hayton Area Remediation Project, located in Wisconsin, to TRC. Under the contract, TRC assumes responsibility for all remediation work at the site, a 30-acre pond contaminated with polychlorinated biphenyl (PCB) sediments. As a vital part of the deal, TRC has taken out a \$41-million environmental policy with AIG Environmental which will provide coverage for 20 years. The deal allows Tecumseh Products Co. to rid itself of potential environmental liability arising from the site for a fixed price. The transaction has received approval from the Wisconsin Department of Natural Resources, which will continue to work with TRC during the remediation process.³⁶

Market Drivers for U.S. Environmental Insurance

Historically, one of the largest sources of environmental insurance claims has been asbestos removal. During 1991-2003, the insurance industry paid out \$1.6 billion per year, on average, in asbestos-related claims, and held asbestos-related reserves of \$22.7 billion at the end of 2003.³⁷

Although asbestos remains an ongoing issue, other environmental concerns are also rising in importance. Chief among these is toxic mold, which shows signs of becoming the “new asbestos” in terms of claims paid by the environmental insurance industry. The increased number of toxic mold problems in the United States has led to expensive remediation efforts and correspondingly expensive lawsuits. According to one estimate, U.S. insurers paid mold-related claims of more than \$3 billion in 2002, up from \$1.3 billion during 2001.³⁸ One of the most expensive cases reported is the \$55 million spent to clean mold from the Hilton Kalia Tower in Honolulu, which was closed in 2002, a year after opening, due to extensive mold problems.³⁹ Hilton sued its architects and 18 other contractors in an effort to recoup its costs.⁴⁰ The lawsuit was granted class-action status in December 2004, and litigation was ongoing as of February 2005.⁴¹

Mold claims have been excluded from most general liability policies, and there is an emerging consensus within the insurance industry that toxic mold fits the definition of an environmental pollutant under standard environmental liability policies.⁴² In response, a number of insurers have specifically included mold in their definitions of “covered pollutants” in environmental insurance policies.⁴³ As of 2003, insurers in 39 states have received regulatory approval to exclude mold coverage from their standard property insurance forms, instead offering coverage through separate environmental insurance policies.⁴⁴

Bioterrorism also has surfaced as a particular concern for environmental insurers, as anthrax or other such biological agents may fall within the definition of pollutants. Insurers have inserted exclusionary language related to bioterrorism in most terrorism-specific policies, and site-specific environmental liability policies have stepped in to fill the gap.⁴⁵

International Markets

The passage of environmental regulations in most European countries and Australia has led to the formation of active environmental insurance markets outside of the United States (table 2).⁴⁶ According to one industry estimate, the environmental insurance market beyond the United States was valued at \$300 million in 2003.⁴⁷ Another source estimated the premium value of environmental insurance written in the London market at £60 million (\$110 million) in 2004, up from £25 million (\$38 million) in 2000.⁴⁸ As recently as 1997, premium volume for environmental insurance in Europe was too small to measure, reflecting the rapid growth of the industry segment in the past few years.⁴⁹ The environmental insurance market in Australia was just beginning to develop as of 2003, with at least five firms participating.⁵⁰ U.S. observers estimate that current development of the environmental insurance markets in Europe and Australia may be 10 to 15 years behind that of the United States.⁵¹

Table 2
Environmental liability regimes in selected major markets

Country	Environmental liability principles
Australia	Most environmental regulation is the province of state governments, but tends to follow the “polluter pays” principle of assigning liability.
France	No specific liability for ecological damage, although case law has upheld such liability in practice under general civil liability law.
Germany	No compensation for primary environmental damage, only for damage that infringes on individual rights. Environmental insurance is mandatory for certain high-risk activities.
Italy	Polluter pays principle, similar to U.S. principles. Environmental laws impose compulsory cleanup orders backed by criminal sanctions.
Portugal	Polluter pays principle, similar to U.S. system.
Switzerland	Polluter pays principle, similar to U.S. system.
United Kingdom	The primary remediation law is the UK Contaminated Land Regime, part of the Environment Act of 1995. The Regime was brought into force in April 2000.
United States	Polluter pays principle, based largely on the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) and the Resource Conservation and Recovery Act (RCRA), which specify joint and several liability for landowners.

Source: Swiss Re, “The Insurability of Ecological Damage,” 2003, p. 9, found at [http://www.swissre.com/INTERNET/pwfilpr.nsf/vwFilebyIDKEYLu/ESTR-5SMHEA/\\$FILE/Eco_Damage_en.pdf](http://www.swissre.com/INTERNET/pwfilpr.nsf/vwFilebyIDKEYLu/ESTR-5SMHEA/$FILE/Eco_Damage_en.pdf), retrieved June 15, 2004; Organization for Economic Cooperation and Development (OECD), *Environmental Risks and Insurance: A Comparative Analysis of the Role of Insurance in the Management of Environment-Related Risks*, Policy Issues in Insurance No. 6 (Paris: OECD, 2003), p. 33; and Aidan Thomson, “Environmental Round Up,” Mondaq Ltd., Apr. 14, 2004, found at <http://www.dialogselect.com/>, retrieved Feb. 11, 2005.

In contrast to the absolute pollution exclusion in U.S. general liability policies, European and Australian policies generally continue to cover “sudden and accidental” events while excluding other types of environmental damage. Even so, the market for environmental insurance in Europe is growing, as the “sudden and accidental” caveat still leaves significant risks uninsured, including liability for gradual environmental damage, such as seepage from a landfill or leakage from an underground storage tank that goes undetected for years, and liability in connection with the sale or transfer of land, a particular concern in the context of M&As.⁵²

Italy, Switzerland, and Portugal have all enacted environmental laws with “polluter pays” liability obligations similar to those of the United States. In Italy, environmental laws impose compulsory cleanup orders backed by criminal sanctions. However, court rulings based on these laws have been few and the rulings have been contradictory, leaving a high level of legal uncertainty surrounding the enforcement of environmental laws. Environmental insurance coverage in Italy is correspondingly difficult to obtain, although the standard policy forms are in the process of being reworked, which should help to improve the situation.⁵³ Germany’s environmental laws embody a somewhat different view of polluter liability, with no compensation mandated for primary environmental damage, only such damage as infringes on the rights of the individual.⁵⁴ Environmental insurance coverage is mandatory for certain high-risk activities in Germany, with policies tailored to fit each individual situation.⁵⁵ In the United Kingdom, the primary remediation law is the UK Contaminated Land Regime, part of the Environment Act of 1990. The regime was brought into

force in April 2000.⁵⁶ Enforcement of the remediation laws in the United Kingdom reportedly has been uneven, limiting the demand for environmental insurance, with fewer than 100 sites in the United Kingdom designated as contaminated as of April 2004.⁵⁷ However, this is expected to change in coming years as new regulations are implemented and regulatory authorities begin to conduct inspections. The first prosecution under the new regulations took place in 2004.⁵⁸ In France there is no specific liability for ecological damage, although case law has upheld such liability in practice under general civil liability law.⁵⁹ Recent environmental legislation in Sweden has led to development of an environmental insurance market in that country as well.⁶⁰ In Australia, most environmental regulation is the duty of state governments, but tends to follow the “polluter pays” principle of assigning liability.⁶¹

In France, Italy, Spain, and the Netherlands, insurers and reinsurers have formed national environmental insurance pools⁶² to aggregate capacity and share resources related to actuarial information and the development of new products. Together, the pools write an estimated €20 million (\$25 million) in premiums annually.⁶³ Companies operating in these countries are eligible to take part in the pool, whether or not they are based elsewhere. The pools take the place of private environmental insurance, although they generally offer coverage limited to third-party liability for environmental damage caused by the insured. Since the pools involve most primary insurers and reinsurers in each market, they form quasi-monopolies that effectively eliminate competition in their primary insurance area of PLL insurance, leading the European Commission to grant Assurpol an exemption from antitrust rules.⁶⁴ However, several types of coverage commonly offered by North American environmental insurers tend not to be available through the pools, creating market opportunities for private insurers even in countries with existing pools. For example, coverage for the cost of removing polluted material, and coverage related to environmental liabilities associated with the sale of land, are generally not available through these pools. Private insurers are also able to offer multinational corporations a package policy covering their entire global operations, whereas the pools only cover operations within a single country.⁶⁵

Unlike in the United States, the pools in both Spain and France work together with public authorities on solutions for accident prevention and cleanup operations.⁶⁶ In Spain, the pool began operations in 1995, with seven insurance firms. As of the end of 2000, the pool involved 29 direct and reinsurance companies, had received 2,700 submissions, written 955 policies, and offered combined net capacity of €10.5 million (\$9.7 million). Spain’s pool has particularly focused on coverage of landfill sites,⁶⁷ with over 40 insured landfills through May 2001.⁶⁸ In France, Assurpol acts as a cooperative reinsurance association for more than 50 insurance and reinsurance companies. Assurpol policies cover claims for quantifiable damages of up to FRF 200 million which result from accidents within insured sites, and which can be attributed to insured activities. Coverage is also available for professional liability and the activities of government organizations.⁶⁹

The EU Environmental Liability Directive⁷⁰ is the first EU-wide legislation which strictly defines the extent of environmental liability along the lines of the “polluter pays” principle, under which the polluter is responsible for the costs of remedying environmental damage. The Directive defines environmental damage as damage to land; water; or biodiversity, defined as protected species and natural habitats.⁷¹ The latter is a departure from existing environmental legislation elsewhere, which principally targets water and soil remediation. However, the Directive only covers damages that are directly related to environmental damage compensated under existing civil liability laws, including bodily injuries, property damage and economic loss. These would continue to be covered by national laws.⁷² The Directive must be implemented into the laws of member countries by April 2007, and individual countries may choose to enact laws that are stricter than the Directive.⁷³ In an important provision, environmental damage occurring before the Directive’s implementation in 2007 is not covered. When the Directive is implemented, the most important changes to existing member country laws will be the provisions extending damage claims to biodiversity and enabling compensation for interim losses. Most other environmental problems covered by the Directive, including soil, water, and waste disposal problems, are already adequately covered by existing member country laws.⁷⁴

The environmental liability Directive as originally proposed included a requirement for companies to maintain some type of financial provision or operational environmental insurance to address their environmental liabilities. The Czech Republic, for example, already has enacted such legislation, which has contributed to a growing environmental insurance market in that country.⁷⁵ Such a compulsory insurance provision would likely lead to a significant expansion in the size of the European environmental insurance market, but European insurers remain hesitant to support the measure, citing concerns over fair methods of valuing environmental damage, particularly as related to biodiversity claims. In particular, there is currently no universally accepted method of quantifying the value of damage to a natural habitat or extinction of a plant or animal species, establishing baseline conditions to which a habitat would need to be restored, or understanding the full cost of either restoration or damage prevention.⁷⁶

The industry also cites several additional concerns regarding compulsory environmental insurance. First, there is very little available actuarial data regarding the frequency or extent of claims, particularly in the NRD/biodiversity area, so there is insufficient data to set premium rates. This is likely to lead to high premiums, which many companies will not be able to afford. Second, insurers point out that they must be free to reject some risks, and that the existence of insurance cover is not a substitute for strong regulatory safeguards on activities that are potentially hazardous to the environment.⁷⁷ In response to these concerns, the Directive as passed permits member countries to decide whether to include a requirement for compulsory environmental insurance in legislation of each country implementing the Directive, but notes that member states should encourage potentially liable firms to make use of existing insurance or other financial instruments to address their environmental liabilities.

Outlook

The U.S. market for environmental insurance is expected to continue its rapid growth, as market participants develop a greater understanding of the available products and the ways in which such insurance can alleviate the environmental risks associated with mergers, acquisitions, and real estate transactions. The European market for environmental insurance has developed more slowly, due to differences in environmental liability under the legislation of each country. However, growth will likely accelerate following legislative developments in several European countries, and the implementation of the EU Directive on Environmental Liability in 2007. ■

ENDNOTES

1. Environmental insurance is part of the “surplus lines” class of nonlife insurance.
2. Excludes the European environmental insurance pools. Willis Group Holdings, “Trends in Environmental Risk Management and Insurance,” *Environmental Risk*, issue 1, 2005, p. 1, found at <http://www.willis.com/services/environmental/>, retrieved June 30, 2005.
3. Brownfields sites are polluted sites that are cleaned up and redeveloped to serve new purposes, particularly former urban industrial sites that are redeveloped as commercial or residential areas.
4. Industry representatives, interviews by USITC staff, California, May 12-14, and Virginia, June 14, 2004.
5. A.M. Best, a leading insurance industry information source, estimates ultimate insurance industry environmental liability from policies written before the pollution exclusion at \$56 million. This includes both soil and water remediation and asbestos removal liabilities. Meg Green, “Pay the Piper,” *Best’s Review*, Feb. 2005, pp. 54-57; and industry representative, email to USITC staff, Feb. 18, 2005.
6. Environmental Risk Resources Association (ERRA), “2003 Environmental Insurance Market: A Year in Review and 2004 Environmental Insurance Market Forecast,” winter 2004 newsletter, found at <http://www.erraonline.org/winter2004yearinreview.htm>, retrieved Feb. 9, 2005.
7. Existing environmental insurance policies tend to focus on liability for past acts of soil and water contamination, generally in the context of a real estate transaction or merger where the buyer is concerned about unearthing contamination left by previous property owners. Biodiversity and NRD concerns, by contrast, generally focus on future liability for acts undertaken by the insured in the present. See, e.g., “Risk Report: Flight into the Unknown,” *Post Magazine*, Feb. 9, 2005, found at <http://dialog.newsedge.com>, retrieved Feb. 11, 2005.
8. Industry representatives, interview with USITC staff, Brussels, Oct. 19, 2004.
9. Meg Green, “Pay the Piper.”
10. Directive 2004/35/CE of the European Parliament and of the Council, “On Environmental Liability with Regard to the Prevention and Remedying of Environmental Damage,” Apr. 21, 2004, *Official Journal of the European Union*, L143/56, Apr. 30, 2004.
11. Terminology regarding the different types of policies tends to vary by source, but the listed categories are common to most. See, e.g., U.S. Environmental Protection Agency (EPA), “Potential Insurance Products for Brownfields Cleanup and Redevelopment,” EPA 500-F-97-106, Apr. 1997, found at <http://www.epa.gov/>, retrieved June 2, 2004; Gregg A. Nathanson, Esq., “Environmental Contamination and Pollution Insurance,” found at <http://www.couzens.com/pubs/insurance.shtml>, retrieved June 2, 2004; and Willis Group Holdings, “Environmental Insurance and M&A,” *Environmental Risk*, spring 2004, found at <http://www.willis.com/>, retrieved June 16, 2004.
12. EPA, “Potential Insurance Products for Brownfields Cleanup and Redevelopment;” and George B. Flanigan, “Insurance Coverage for Environmental Claims,” *Risk Management Magazine*, found at <http://www.rmmag.com/Magazine/PrintTemplate.dfm?AID=2225>, retrieved Jan. 29, 2004.
13. Flanigan, “Insurance Coverage for Environmental Claims.”
14. Industry representative, interview by USITC staff, Virginia, June 14, 2004.
15. Environmental Business International, Inc. (EBI), “EBJ’s 2003 Remediation Survey Results,” *Environmental Business Journal*, vol. 15, No. 7/8, 2003, p. 5.
16. EPA, “Potential Insurance Products for Brownfields Cleanup and Redevelopment;” and industry representative, interview by USITC staff, Virginia, June 14, 2004.
17. Flanigan, “Insurance Coverage for Environmental Claims;” and William Seuch, “Environmental Insurance To Protect the Interest of Lenders,” *Environmental Risk Resources Association, Environmental Insurance Newsletter*, summer 2003, found at <http://www.erraonline.org/summer2003newsletter.pdf>, retrieved June 3, 2004.
18. Seuch, “Environmental Insurance To Protect the Interest of Lenders.”
19. Industry representative, interview by USITC staff, Virginia, June 14, 2004; and Willis Group Holdings, *Environmental Risk*, Oct. 2004, p. 1, found at www.willis.com, retrieved Feb. 28, 2005.
20. Kenneth E. Anderson and Donna Ferrara, “Disclosing Environmental Liabilities: Director, Officer and Insurance Issues.” Sept. 19, 2003, found at <http://www.erraonline.org/disclosing.pdf>, retrieved June 2, 2004.
21. See Willis Group Holdings, “Environmental Insurance and M&A,” p. 1.

22. Anderson and Ferrara, "Disclosing Environmental Liabilities;" industry representative, interview by USITC staff, Virginia, June 14, 2004; and David J. Dybdahl, "A Users' Guide to Real Environmental Insurance," found at <http://www.erraonline.org/realenvins.html/>, retrieved June 2, 2004.
23. ERRA, "2003 Environmental Insurance Market;" and Alan Bressler, "Navigating the U.S. Environmental Liability Market (Part 1)," Mar. 2002, found at <http://www.irmi.com/Expert/Articles/2002/Bressler03a.aspx>, retrieved June 2, 2004.
24. Industry representatives, interviews by USITC staff, California, May 12-14, and Virginia, June 14, 2004.
25. For example, the number of firms offering contractor's pollution liability insurance almost doubled, to 15, during 1999-2003, and average premiums dropped by 25 percent. Jeff Slivka, "Contractor's Pollution Liability Insurance: More Available Today Than Ever!" *Environmental Insurance Newsletter*, ERRA, winter 2003, found at <http://www.erraonline.org/publications.htm#anchor2>, retrieved June 3, 2004.
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APPENDIX A

Key Performance Indicators of Selected Industries and Regions¹

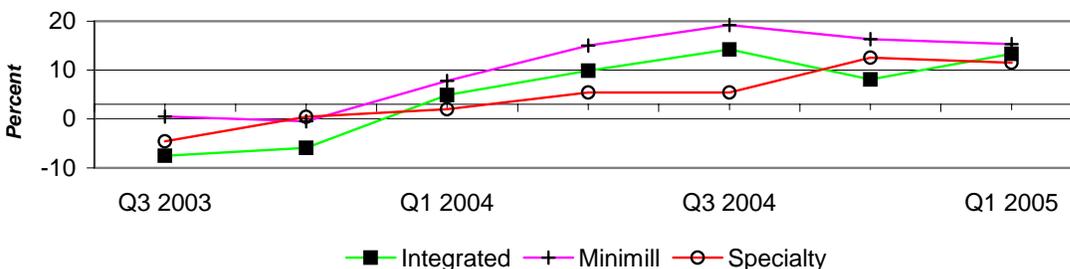
Title	Author ¹	Page
Steel	Harry Lenchitz	A-2
	(202) 205-2737 <i>harry.lenchitz@usitc.gov</i>	A-3
Automobiles	Laura A. Polly (202) 205-3408 <i>laura.polly@usitc.gov</i>	A-4
Unwrought Aluminum	Judith-Anne Webster (202) 205-3489 <i>judith-anne.webster@usitc.gov</i>	A-5
Flat Glass	Vincent DeSapio (202) 205-3435 <i>vincent.desapio@usitc.gov</i>	A-6
Services	Cynthia Payne (202) 205-3410 <i>cynthia.payne@usitc.gov</i>	A-7
North American Trade	Hadassah Head	A-8
	Ruben Mata (202) 205-3403 <i>ruben.mata@usitc.gov</i>	A-9

¹ The data and views presented for the following indicators are compiled from the industry sources noted and are those of the authors. They are not the views of the United States International Trade Commission as a whole or of any individual Commissioner. Nothing contained in this information based on published sources should be construed to indicate how the Commission would find in an investigation conducted under any statutory authority.

STEEL

Figure 1

First quarter 2005 results sustain the 2004 performance of positive operating income¹ for domestic producers



¹ Operating income (loss) as a percent of sales. Integrated group comprises 4 firms. Minimill group comprises 7 firms. Specialty group comprises 4 firms.

Note.--Beginning in first quarter 2005 integrated group includes 1 previously untracked firm, and no longer includes 1 previously tracked firm, reflecting ownership changes in the industry.

Source: Individual company financial statements.

- United States Steel Corporation announced plans on April 1, 2005 to rebuild its Gary (IN) Works' No. 13 blast furnace, which accounts for 45 percent of the iron produced at Gary Works. Upon completion of the rebuild, scheduled for August 1 through October 30, 2005, the furnace will be capable of producing 9,200 tons of hot metal per day compared with 7,045 tons presently. See www.ussteel.com
- Mittal Steel Company N.V. completed its acquisition of International Steel Group Inc. on April 15, 2005. The acquisition is projected to result in \$290 million in cost savings annually after integration of purchasing, inventory, and other manufacturing and marketing functions. See www.mittalsteel.com
- The U.S. Department of Commerce initiated a changed circumstances review on carbon and certain alloy steel wire rod from Ukraine on April 20, 2005, to determine whether Ukraine, the world's seventh-ranked steel producing country, should be designated a market economy in antidumping cases. See www.ia.ita.doc.gov
- Wheeling-Pittsburgh Steel Corporation announced on May 3, 2005 that it will permanently idle its No. 1 blast furnace in Steubenville, OH, which began operating in 1899 as part of the LaBelle Iron Works. Wheeling Pitt will continue to operate its No. 5 blast furnace, along with its new Consteel(R) Electric Arc Furnace, to produce steel for its caster and hot strip mill. See www.wpsc.com
- Nucor Corporation completed the purchase of Marion (OH) Steel Company, a bar products mill with an annual capacity of approximately 400,000 tons, on June 3, 2005. The mill's principal products are angles, flats, rebar, rounds, and signposts. See www.nucor.com

Table A-1

Imports of finished and semifinished decrease during first quarter 2005 compared with fourth quarter 2004, but remain ahead of first quarter 2004 whereas exports continue to increase

Item	Q4 2004	Percentage change, Q1 2005		Q1 2005 ¹	Percentage change, Q1 2005	
		from Q4 2004	from Q1 2004		from Q4 2004	from Q1 2004
Producers' shipments (1,000 short tons).....	26,672	0.1		26,696	-5.6	
Finished imports (1,000 short tons).....	7,836	-17.7		6,448	24.1	
Semifinished imports (1,000 short tons).....	2,051	-8.6		1,875	20.3	
Exports (1,000 short tons).....	2,025	27.7		2,586	22.8	
Apparent supply, finished (1,000 short tons).....	32,483	-5.9		30,557	-2.5	
Ratio of finished imports to apparent supply (percent) ...	24.1	² -3.0		21.1	² 4.5	

¹ Preliminary.

² Percentage-point change.

Note.--Because of rounding, figures may not add to the totals shown.

Source: American Iron and Steel Institute.

STEEL

Table A-2
Steel service center: First quarter 2005 shipments increase by 32.9 percent compared with fourth quarter 2004, but trail first quarter 2004 by 4.9 percent

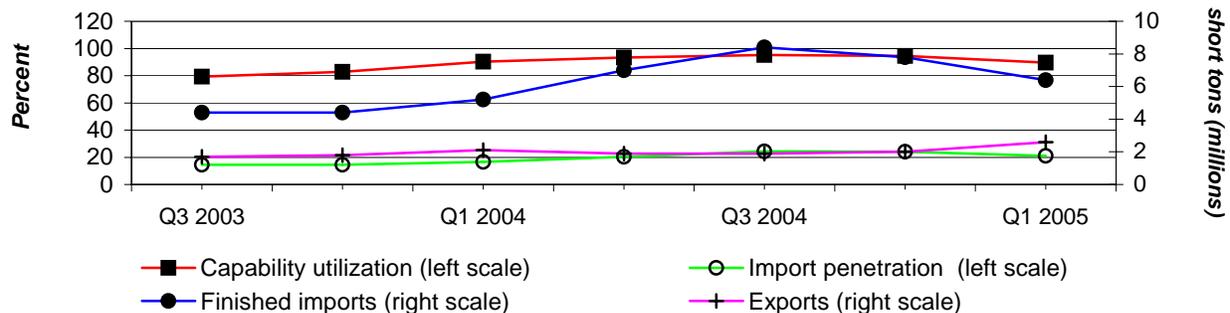
Item	Dec. 2004	Mar. 2005	Percentage change, Mar. 2005 from			Percentage change, Q1 2005 from
			Dec. 2004	Q1 2004	Q1 2005	Q1 2004
Shipment (1,000 short tons).....	3,787	5,034	32.9	15,781	14,061	-4.9
Ending inventories (1,000 short tons).	15,904	15,638	-1.7	12,890	15,638	21.3
Inventories on hand (months).....	4.2	3.1	(¹)	2.4	3.1	(¹)

¹ Not applicable.

Source: Metals Service Center Institute.

- Although U.S. steel service centers worked down their fourth quarter 2004 inventories during first quarter 2005 (table A-2), monthly shipments during first quarter 2005 have lagged slightly behind year-earlier monthly shipments according to the Metals Service Center Institute. See <http://www.msci.org>
- The American Institute for International Steel import market survey (April 2005) predicts decreased imports of hot- and cold-rolled sheet, cut-to-length plate, wire rod, merchant bar, and structural products during the next 3 to 5 months. The survey predicts no significant changes in imports of semi-finished, corrosion resistant, and stainless sheet. See <http://www.aiis.org>
- The 61 countries reporting to the International Iron and Steel Institute produced 326 million tons of crude steel during the first 4 months of 2005, a 7-percent increase compared with the same period in 2004. Between January-April 2005, the leading producer, China, accounted for almost 30 percent of world production, with 25 percent higher output compared with January-April 2004. The second-largest producer, Japan, accounted for about 10 percent of world production, whereas the United States and Russia produced 9 percent and 6 percent respectively. See <http://www.worldsteel.org>
- Capability utilization, along with imports and import penetration, continued to decline during first quarter 2005 compared with their recent highs during third quarter 2003 (figure A-2). See <http://www.steel.org>

Figure A-2
Steel mill products, all grades: Capability utilization slips below 90 percent for the first time since 2003



Note.--Capability utilization is the raw steel tonnage produced divided by the tonnage capability to produce raw steel for a sustained full order book

Source: American Iron and Steel Institute.

AUTOMOBILES

Table A-3

U.S. sales of new passenger vehicles (cars and light trucks), domestic and imported, and share of U.S. market accounted for by sales of total imports and Japanese imports, by specified periods, January 2003-December 2004

Item	Percentage change				
	Oct.-Dec. 2004	Jan.-Dec. 2004	Oct.-Dec. 2004 from July-Sept. 2004	Jan.-Dec. 2004 from Jan.-Dec. 2003	
U.S. sales of domestic passenger vehicles (1,000 units)	3,212	12,779	14.3	-4.5	
U.S. sales of imported passenger vehicles (1,000 units).....	865	3,275	14.9	-0.6	
Total U.S. sales (1,000 units)	4,077	16,053	14.4	-3.7	
Ratio of U.S. sales of imported passenger vehicles to total U.S. sales (percent)	21.2	20.4	¹ 0.1	¹ 0.6	
U.S. sales of Japanese imports as a share of total U.S. sales (percent)	10.1	10.3	¹ -1.7	¹ 0.0	

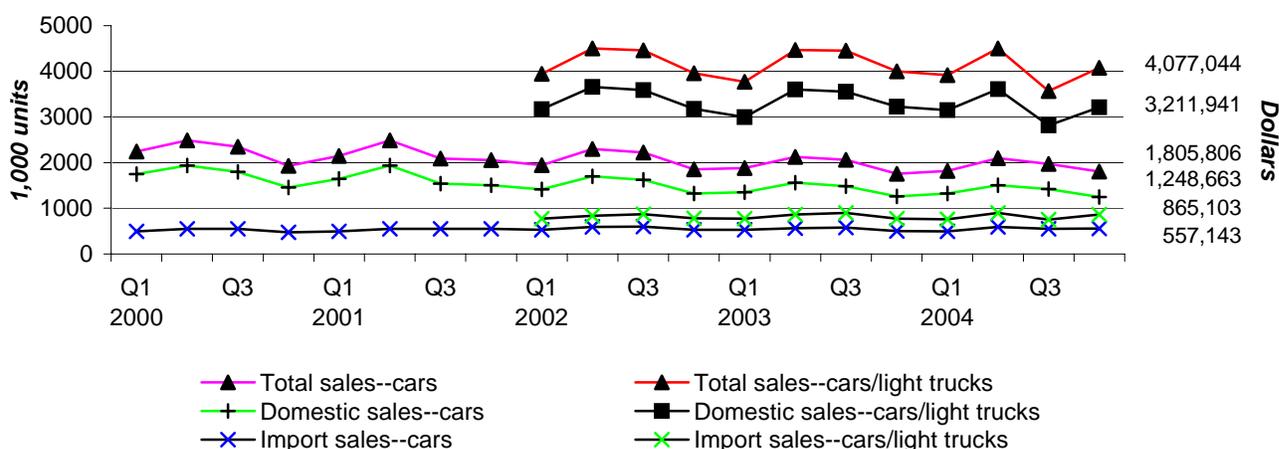
¹ Percentage point change.

Note.—Domestic passenger vehicles include U.S.-, Canadian-, and Mexican-built cars and light trucks sold in the United States. Imported passenger vehicles do not include cars and light trucks supplied by Canada and Mexico.

- U.S. passenger vehicle sales reached nearly 16.9 million in 2004, the best sales year since 2001. Foreign-brand vehicles accounted for over 41 percent of U.S. passenger vehicle sales, and over 57 percent of passenger car sales.
- In 2004, Japanese-brand passenger vehicles increased their U.S. market share to 30.5 percent, up 1.7 percentage points from the 2003 level. General Motors, Ford, and the Chrysler Division of DaimlerChrysler lost 1.6 percentage points, to finish the year with a 58.7 percent market share.
- Japanese-brand vehicles made significant inroads in the U.S. market by increasing their use of consumer incentives and by selling more full-sized pickups and sport-utility vehicles.
- General Motors, Ford, and Chrysler spent over 7 percent more on consumer incentives in 2004 than in 2003, surpassing an average \$4,500 per vehicle in incentives.

Figure A-3

U.S. sales of new passenger vehicles (cars and light trucks) increase steeply in the fourth quarter 2004

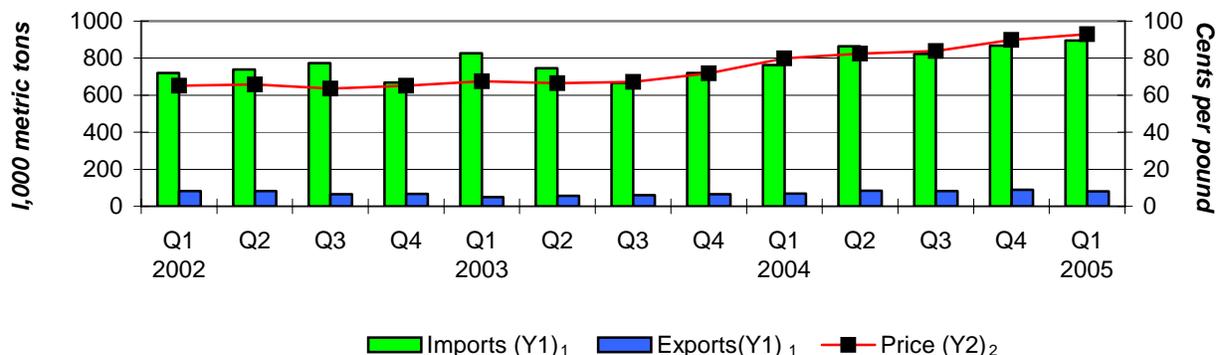


Note.—Domestic sales include U.S.- and Mexican-built vehicles sold in the United States; these same units are not included in import sales.

Source: *Automotive News*; prepared by the Office of Industries.

UNWROUGHT ALUMINUM¹

Figure A-4
Robust prices for primary aluminum in first quarter 2005 reflected the high cost of alumina, energy, and transportation



¹ Unwrought aluminum and aluminum alloys.

² Quarterly average of the monthly U.S. market price of primary aluminum ingots.

Source: Compiled by USITC staff based on data obtained from the U.S. Geological Survey.

- Anticipated demand for aluminum products, particularly new applications in the transportation market, have helped to sustain high aluminum prices in the first quarter of 2005. Following the first successful flight of its new A380 (a jumbo commercial aircraft double the capacity of a 747), Airbus signed a long-term deal with Alcoa (worth nearly \$2 billion) for sheet and plate products for the new aircraft. DaimlerChrysler expects to reintroduce the diesel engine (a popular product in Europe) to the U.S. market with a cast aluminum diesel engine manufactured by Hydro Aluminum. The car manufacturer anticipates using the new engine on the Mercedes models. Sales of vehicles with diesel engines are expected to grow in the United States due to diesel's fuel efficiency.
- High aluminum prices led Alcoa to restart production at one of its aluminum smelters in the Pacific Northwest. Wenatchee had been closed since 2001 due to power availability and labor issues. The restart makes Wenatchee the third of the eleven smelters operating in the Pacific Northwest to restart idled production.

Table A-4
Continued drawdown of London Metal Exchange (LME) inventories, increased imports, and declining exports reflected strong consumption of aluminum from a growing U.S. economy

Item	Q1 2004	Q4 2004	Q1 2005	Percentage change	
				Q1 2005 from Q1 2004	Q1 2005 from Q4 2004
Primary production (1,000 metric tons)	635	629	614	-3.3	-2.4
Secondary recovery (1,000 metric tons)	741	749	782	5.5	4.4
Imports (1,000 metric tons)	763	868	895	17.3	3.1
Import penetration (percent).....	36.9	40.2	40.5	¹ 3.3	¹ 3.6
Exports (1,000 metric tons)	69	89	81	17.4	-9.0
Average nominal price (cents/lb).....	79.9	89.8	92.9	16.3	3.4
LME inventory level (1,000 metric tons)	1,227	693	547	-55.4	-21.1

¹ Percent-point change.

Note.—Revised data indicated by “r.”

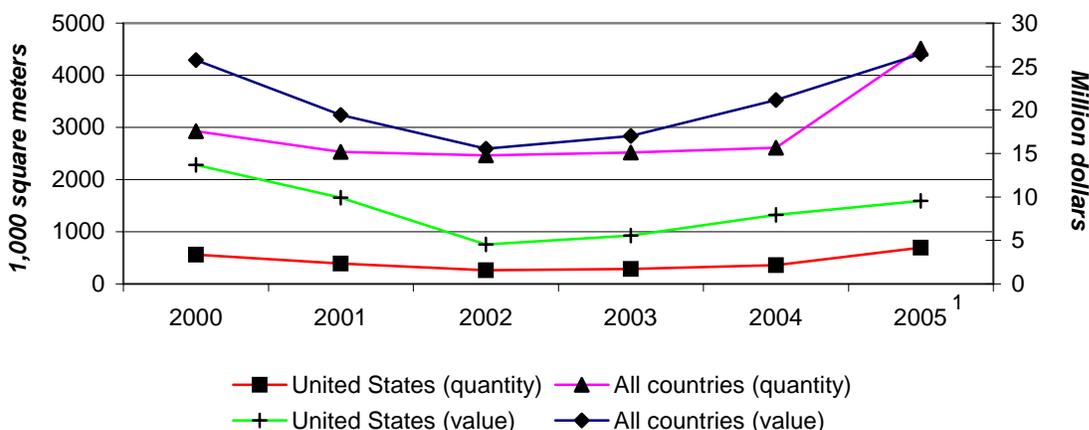
Sources: Compiled from data obtained from U.S. Geological Survey and World Bureau of Metal Statistics.

¹ Product coverage includes only unwrought aluminum and certain aluminum alloys for improved data comparability.

FLAT GLASS

Figure A-5

Japanese monthly average imports from U.S. and world increased during first 4 months of 2005



¹ Data for Jan-April (latest available data).

Source: Compiled from "World Trade Atlas: Japan" at <http://www.globaltradeatlas.com>, using official statistics provided by the Government of Japan.

Background

- Although the U.S.-Japanese agreement on Japanese market access for imports of flat glass, which sought to increase access and sales of foreign flat glass in Japan, expired on December 31, 1999,¹ the U.S. Government continues to engage the Japanese Government in discussions over access to the Japanese market. Most recently, in the 2003 Trade Forum discussion held in July 2003 under the U.S.-Japan Partnership for Economic Growth, the U.S. Government "highlighted the continuing problems that prevent market entry, including the need for tighter enforcement of rules against anticompetitive behavior."² The U.S. Government also urged Japan to modify regulations to facilitate use of energy-efficient glass in Japan.
- U.S. and Japanese negotiators have agreed that Japan's Ministry of Trade and Industry (MITI), in conjunction with the Japan Fair Trade Commission (JFTC), should monitor Japanese flat-glass manufacturers and the glass distribution system in Japan to promote competition in the sector.³

Current

- As a result of increased Japanese economic growth during the first quarter of 2005, Japanese average monthly demand for imported flat glass from all countries increased 73 percent for the first 4 months of 2005, to 4.5 million square meters, compared with the same period in 2004. The average monthly value of total Japanese flat glass imports for the first 4 months of 2005 increased 26 percent, to \$26.5 million, compared with the same period in 2004. In full-year 2004, the quantity of average monthly Japanese imports increased 27 percent compared with the same imports in 2003, and increased 55 percent in value during the same period.
- Average monthly Japanese imports from the United States increased by quantity and value during the first 4 months of 2005 compared with the same period in 2004 (up 92 percent to 694,000 square meters and up 20 percent to \$9.5 million, respectively) due largely to increased demand in Japan for higher-value architectural-grade coated and ultra-clear flat glass products from the United States, for use in construction-related applications. In full-year 2004, average monthly imports from the United States increased 73 percent in quantity and 124 percent in value compared with the same imports for 2003

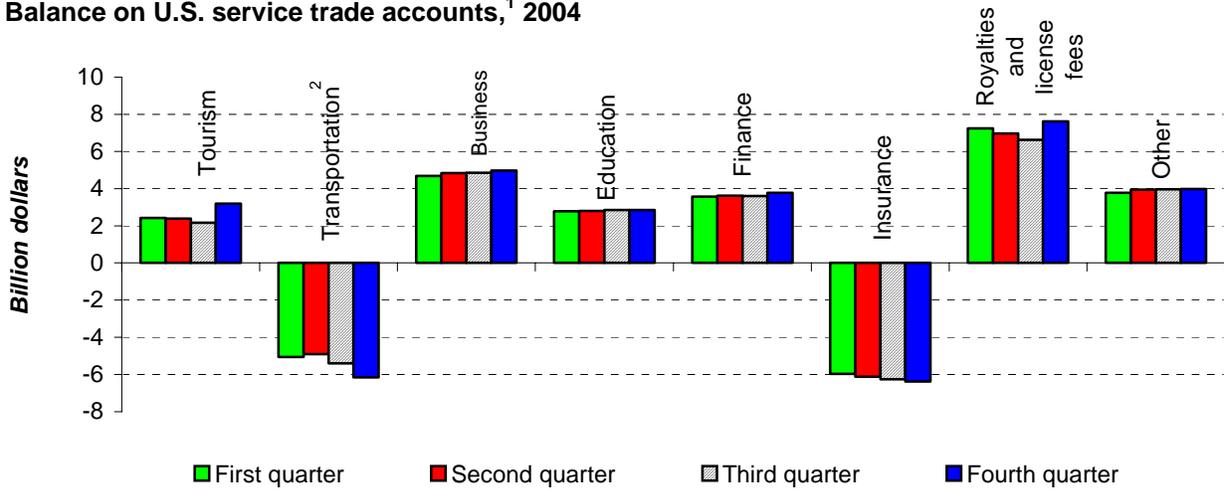
¹ Office of the United States Trade Representative (USTR), *The President's 1999 Annual Report on the Trade Agreements Program*, p. 227, downloaded from <http://www.ustr.gov/reports/tpa/2000index.html> on Mar. 3, 2004.

² USTR, *2004 Trade Policy Agenda and 2003 Annual Report of the President of the United States on the Trade Agreements Program* (final draft), 2003, pp. 21-22.

³ USTR, *Fourth Annual Submission by the Government of the United States to the Government of Japan on Deregulation and Competition Policy*, Oct. 12, 2000, p. 32.

SERVICES

Figure A-6
 Balance on U.S. service trade accounts,¹ 2004

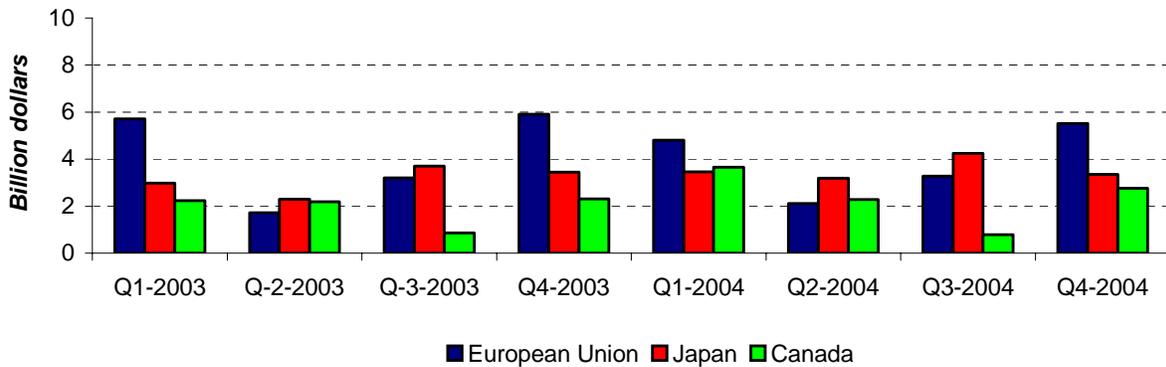


¹ Data for telecommunication services are too small to be revealed graphically.

² Includes passenger fares, freight, and port services.

Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business*, April 2005, p. 52.

Figure A-7
 Surpluses on cross-border U.S. services transactions with selected partners, by select quarters, 2003-04¹



¹ Private-sector transactions only; military shipments and other public-sector transactions have been excluded.

Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business*, Apr. 2005, pp. 62-66.

NORTH AMERICAN MERCHANDISE TRADE HIGHLIGHTS

U.S. merchandise trade with its North American partners is highlighted in table A-5. The following is a summary of key developments during January-March 2005 (1Q2005) compared with the same period of 2004.

Macro trends

- Higher commodity prices were an important factor underlying the increased value of U.S. imports from Canada and Mexico in 1Q2005, as continued rapid GDP growth in China pushed up global prices for petroleum, metals, and other inputs for construction and manufacturing, and some downstream products as well. Continued growth in the U.S. economy (3.8-percent GDP growth in 1Q2005) also contributed to the rise in U.S. imports. Rising global commodity prices helped maintain profit margins for Canadian exports despite the continued increase in the value of the Canadian dollar relative to the U.S. dollar. Canadian manufacturers reportedly have cushioned the effects of the rising Canadian dollar by “globalizing their supply chains.”¹
- A similar rate of growth for U.S. exports to NAFTA partners reflected demand for U.S.-origin capital equipment and intermediate goods in manufacturing industries in Canada and Mexico. The 10-percent rise in U.S. exports to Mexico in 1Q2005 contrasts with the slow-down in GDP growth in Mexico to 2.4 percent that quarter from 4.4 percent in full-year 2004. The slower-than-expected growth in Mexico reflected increased competition from China for manufactured goods in both domestic and export markets and an inventory buildup by manufacturers in the United States, which dampened U.S. demand for assembled intermediate goods from Mexico.²
- Although U.S. exports to its NAFTA partners grew at a faster pace in 1Q2005 than U.S. imports (11 percent compared with 10 percent), the import growth was from a larger base and led to a \$2.7-billion (7-percent) expansion in the U.S. trade deficit with Canada and Mexico. In contrast, U.S. imports from China, the second-leading supplier of U.S. imports (between Canada and Mexico) rose by \$11.8 billion (30 percent). Imports from China continued to erode the NAFTA partners’ share of total U.S. imports, as China’s share increased from 11.8 percent to 13.4 percent comparing 1Q2004 with 1Q2005, whereas the NAFTA partners’ share fell from 29.3 percent to 28.0 percent.

Energy

- Escalating crude petroleum prices accounted for about 8 percent (\$593 million) of the value of increased imports from Canada in 1Q2005 and 31 percent (\$676 million) of increased imports from Mexico. While the value of crude petroleum imports from Canada and Mexico grew by 11 percent (\$437 million) and 14 percent (\$550 million), respectively, in 1Q2005, the per-barrel world price of crude petroleum rose by 32 percent. The quantity of crude petroleum imported from Canada and Mexico actually declined in 1Q2005, by 4 percent and 3 percent, respectively.
- U.S. natural-gas imports from Canada rose by 28 percent (\$1.5 billion) in value and 5 percent in quantity in 1Q2005. Natural gas accounted for over one-fifth of the total increase in U.S. imports from Canada in the quarter. Some of this increase, however, was offset by a near doubling (\$432-million increase) of U.S. exports of natural gas to Canada. Canada’s Maritime Provinces and its industrial and population centers in Ontario and Quebec are served by natural-gas pipelines originating in the United States. Gas from the Canadian Rockies and Prairie Provinces is transported by pipelines to the United States where it is commingled with U.S. gas before being re-exported to Eastern Canada.

¹ Peter Menyasz, “Canadian Agency Scales Back Forecast for 2005 Export Growth,” *International Trade Daily*, July 7, 2005, found at <http://pubs.bna.com/ip/BNA/ITD.NSF/877e5e8077111ce485256b57005> . . ., retrieved July 7, 2005.

² U.S. Department of State telegram, “Mexican GDP Growth Slows in First Quarter,” message reference 03216, prepared by the U.S. Embassy, Mexico City, May 18, 2005.

NORTH AMERICAN MERCHANDISE TRADE HIGHLIGHTS

Table A-5
U.S.-Mexico trade, 2000-2004, January-March 2004 and January-March 2005

Item	2000	2001	2002	2003	2004	January-March		Percent change 2004/05
						2004	2005	
Value (million dollars)								
U.S. -Mexico trade:								
Total imports from Mexico.....	134,734	130,509	134,121	137,199	154,959	36,398	38,588	6
U.S. imports under NAFTA:								
Total value.....	83,995	81,162	84,747	87,750	96,024	22,910	23,759	4
Percent of total imports	62	62	63	64	62	63	62	¹ -1
Total exports to Mexico.....	100,442	90,537	86,076	83,108	93,018	21,683	23,796	10
U.S. merchandise trade balance with Mexico ²								
	-34,292	-39,971	-48,045	-54,091	-61,941	-14,715	-14,792	-1
U.S. -Canada trade:								
Total imports from Canada.....	229,060	216,836	210,518	224,016	255,660	60,239	67,433	12
U.S. imports under NAFTA:								
Total value.....	123,052	113,179	115,807	119,416	131,678	30,865	33,961	10
Percent of total imports	54	52	55	53	52	51	50	¹ -1
Total exports to Canada.....	155,601	144,621	142,543	148,749	163,168	39,106	43,979	13
U.S. merchandise trade balance with Canada ³								
	-73,459	-72,215	-67,975	-75,267	-92,492	-21,133	-23,454	-11

¹ Percentage-point change.

² The negative (-) symbol indicates a loss or trade deficit. The \$61.9-billion deficit in U.S. merchandise trade with Mexico in 2004 was partially offset by a \$5.6-billion U.S. surplus in bilateral services trade, not seasonally adjusted.

³ The \$92.5-billion deficit in U.S. merchandise trade with Canada in 2004 was partially offset by a \$9.3-billion U.S. surplus in bilateral services trade.

Source: Compiled by USITC staff from official statistics of the U.S. Department of Commerce. Statistics on U.S. services trade with Canada and Mexico are based on preliminary data provided in U.S. Department of Commerce, Bureau of Economic Analysis, U.S. International Transactions Accounts Data, table 11, found at http://www.BEA.DOC.GOV/BEA/International/BP_web/list.CFM?ANON=92.

- U.S. exports of refined petroleum to Canada also nearly doubled (by \$218 million) in 1Q2005, whereas exports to Mexico rose by 73 percent (\$397 million). Because Canada's petroleum resources are far from its population centers, it is more efficient for Canada to export crude petroleum to the United States and import refined products from the United States, rather than ship petroleum domestically from Alberta to Ontario and Quebec. A shortage of refining capacity in Mexico contributed to higher U.S. exports south of the border.

Automotive

- There was little change in U.S. motor vehicle imports from its NAFTA partners in 1Q2005 as a 13-percent (\$560 million) decline in imports from Mexico offset a 5-percent (\$555 million) increase in imports from Canada. Consumer confidence in Canada, especially in Western Canada,³ and the rising value of the Canadian dollar helped boost U.S. exports of motor vehicles to Canada by 21 percent (\$850 million).

³ Carlos Gomes, "Canadian Auto Report," *Scotia Economics*, found at www.scotiabank.com, retrieved July 27, 2005.

NORTH AMERICAN MERCHANDISE TRADE HIGHLIGHTS

- Despite restrained growth in U.S. production of motor vehicles in 1Q2005, imports of motor vehicle engines and parts from Canada grew by 27 percent (\$313 million). Imports of motor vehicle engines and parts and certain other motor vehicle parts from Mexico rose by 12 percent (\$119 million) and 11 percent (\$173 million), respectively. Falling demand in the United States for certain models of vehicles produced in Mexico led to a contraction in Mexico's vehicle production. That, in turn, was largely responsible for a 13-percent (\$180 million) decline in U.S. exports of certain motor vehicle parts. High interest rates set by the Bank of Mexico restricted purchases by lower income consumers, reducing domestic sales of compact cars⁴ and less demand for U.S. parts used in their manufacture.

Other Sectors**Exports to Canada**

- U.S. exports of steel to Canada more than doubled in 1Q2005, rising by \$208 million. Much of this growth was the result of increased price as China's rapid industrial development drove up the price of steel world wide. Leading the way in expanded exports to Canada was steel plate, which is used in construction, ship-building, and vehicle production. Prices for steel plate rose by 80 percent (\$349) per short ton, from an average of \$435 during 1Q2004 to \$784 during 1Q2005.⁵
- Continued growth in manufacturing in Canada contributed to the 42 percent (\$145 million) expansion in U.S. exports of integrated circuits and microassemblies.

Exports to Mexico

- The shift of final assembly of power tools from the United States to Mexico likely led to a sharp rise in U.S. exports of parts to Mexico.⁶ U.S. exports of power tools and parts rose from \$15 million in 1Q2004 to \$135 million in 1Q2005.
- Reduced demand for animal feed and cooking oil in Mexico in response to slower GDP growth in 1Q2005 may have contributed to the 40-percent (\$124 million) decline in U.S. exports of soybeans to Mexico.

Imports from Canada

- Escalating world prices for lumber and paper were responsible for much of the increase in U.S. imports of those products from Canada in 1Q2005. U.S. imports of sawn lumber rose by 27 percent (\$367 million) and writing paper, by 33 percent (\$198 million).
- The 39-percent (\$192 million) decline in U.S. imports of gold from Canada in 1Q2005 reflected sharply reduced imports of gold bullion. However, trade patterns in various forms of gold vary from year to year depending on annual contractual arrangements negotiated among mines, precious-metal refineries, fabricators, and bullion banks.

Imports from Mexico

- Escalating U.S. demand for flat-screen, high-definition televisions⁷ was largely responsible for the 33-percent (\$483 million) growth in U.S. imports of televisions and monitors from Mexico in 1Q2005. Televisions with larger screens (and higher transportation costs) tend to be imported from Mexico, whereas sets and monitors with smaller screens tend to be imported from China.

⁴ "Consumers Duck for Cover from Interest Rates, but a Resurgent Factory Sector Might Lend a Hand," *Mexico Watch*, Aug. 1, 2005, p. 5f.

⁵ These calculations are based on monthly steel pricing data from various issues of *Purchasing Magazine*.

⁶ Both Black and Decker and Milwaukee Electric Tool have expanded their operations in Reynosa and Matamoos, Mexico, respectively, in the past year according to information on their respective websites.

⁷ Consumer Electronics Association, "U.S. Consumer Electronics Sales & Forecasts: 2000-2005," Jan. 2005.

NORTH AMERICAN MERCHANDISE TRADE HIGHLIGHTS

- Rising global steel prices accounted for much of the doubling (by \$166 million) in the value of U.S. imports of semifinished steel products from Mexico in 1Q2005. Increased shipments of semifinished products from Mexican steelmakers to the finishing operations of their U.S. subsidiaries also may have added to the rise in imports.
- The 24-percent (\$110-million) growth in U.S. imports of medical instruments from Mexico reflects continued expansion in demand in the United States for health care services and improving technology in Mexico for the assembly/production of precision instruments and components.
- U.S. imports of materials handling and earth moving equipment from Mexico increased by 55 percent (\$87 million) in 1Q2005. Higher global steel prices in 2004 resulted in increased production costs, which rose faster than equipment prices. In 2005, manufacturers were able to increase equipment prices to partially recover their costs.⁸ Stepped up U.S. production to supply equipment rental companies that are replacing older equipment may have increased imports of equipment parts from Mexico.⁹

⁸“ConExpo a Great Success, Record Attendance, Many New Product Introductions,” *Machinery Outlook*, Mar. 2005, p. 14.

⁹“Used Equipment Auction Prices Rise Dramatically,” *Machinery Outlook*, Mar. 2005, p. 21.