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**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
WASHINGTON, D.C. 20549**

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**FORM 10-K**

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**ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For The Fiscal Year Ended December 31, 2004

OR

**TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

Commission File Number 1-3610

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**ALCOA INC.**

(Exact name of registrant as specified in its charter)

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**Pennsylvania**  
(State of incorporation)

**25-0317820**  
(I.R.S. Employer Identification No.)

**201 Isabella Street, Pittsburgh, Pennsylvania 15212-5858**  
(Address of principal executive offices) (Zip code)

**Registrant's telephone numbers:**

**Investor Relations** (212) 836-2674  
**Office of the Secretary** (412) 553-4707

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**Securities registered pursuant to Section 12(b) of the Act:**

<u>Title of each class</u>	<u>Name of each exchange on which registered</u>
Common Stock, par value \$1.00	New York Stock Exchange

**Securities registered pursuant to Section 12(g) of the Act: None**

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Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months, and (2) has been subject to such filing requirements for the past 90 days. Yes  No .

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

Indicate by check mark whether the registrant is an accelerated filer (as defined in Rule 12b-2 of the Act). Yes  No .

The aggregate market value of the outstanding common stock, other than shares held by persons who may be deemed affiliates of the registrant, as of the last business day of the registrant's most recently completed second fiscal quarter was approximately \$29 billion. As of February 11, 2005, there were 871,519,916 shares of common stock, par value \$1.00 per share, of the registrant outstanding.

**Documents incorporated by reference.**

Parts I, II and IV of this Form 10-K incorporate by reference certain information from the registrant's 2004 Annual Report to Shareholders (Annual Report). Part III of this Form 10-K incorporates by reference certain information from the registrant's definitive Proxy Statement for its 2005 Annual Meeting of Shareholders filed or to be filed pursuant to Regulation 14A (Proxy Statement).

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#### **Note on Incorporation by Reference**

In this Form 10-K, selected items of information and data are incorporated by reference to portions of the Annual Report and Proxy Statement. Any reference in this report to disclosures in the Annual Report or Proxy Statement shall constitute incorporation by reference of that specific disclosure into this Form 10-K.

**ALCOA INC.**

Formed in 1888, Alcoa Inc. is a Pennsylvania corporation with its principal office in Pittsburgh, Pennsylvania. In this report, unless the context otherwise requires, Alcoa or the “company” means Alcoa Inc. and all subsidiaries consolidated for the purposes of its financial statements.

The company’s Internet address is <http://www.alcoa.com>. Alcoa makes available free of charge on or through its website its annual report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934 as soon as reasonably practicable after the company electronically files such material with, or furnishes it to, the Securities and Exchange Commission (SEC). The SEC maintains an Internet site that contains these reports at <http://www.sec.gov>.

**PART I**

**Item 1. Business.**

**Description of the Business**

Information describing Alcoa’s businesses can be found in the Annual Report at the indicated pages:

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**Overview**

Alcoa is the world’s leading producer of primary aluminum, fabricated aluminum, and alumina, and is active in all major aspects of the industry: technology, mining, refining, smelting, fabricating, and recycling. Aluminum is a commodity that is traded on the London Metal Exchange (LME) and priced daily based on market supply and demand. Aluminum and alumina represent approximately two-thirds of Alcoa’s revenues, and the price of aluminum influences the operating results of Alcoa. Nonaluminum products include precision castings,

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industrial fasteners, vinyl siding, consumer products, food service and flexible packaging products, plastic closures and electrical distribution systems for cars and trucks. Alcoa's products are used worldwide in aircraft, automobiles, commercial transportation, packaging, consumer products, building and construction, and industrial applications.

Alcoa's operations consist of five worldwide segments: Alumina and Chemicals, Primary Metals, Flat-Rolled Products, Engineered Products, and Packaging and Consumer. Alcoa businesses that are not reported to management as part of one of these five segments are combined and reported as "Other."

The Alumina and Chemicals segment primarily consists of a series of affiliated operating entities referred to as Alcoa World Alumina and Chemicals (AWAC). Generally, Alcoa owns 60% and Alumina Limited (formerly WMC Limited) owns 40% of these entities. For more information on AWAC, see Exhibit Nos.10(a) through 10(e) to this report.

Alcoa Aluminio S.A. (Aluminio), an integrated aluminum producer in Brazil, is a wholly-owned subsidiary of Alcoa. Aluminio operates mining, refining, smelting and fabricated products facilities at various locations in Brazil. In August 2003, Alcoa acquired the 40.9% shareholding in Aluminio held by affiliates of Camargo Correa S.A. (collectively the "Camargo Group"). Prior to the acquisition, Alcoa had owned approximately 59% of Aluminio and the Camargo Group had been the principal minority shareholder since 1984. For more information on this acquisition, see Note F to the financial statements.

### Recent Developments

In January 2005, Alcoa completed its acquisition of RUSAL's controlling interests in two fabricating facilities in Samara and Belaya Kalitva in the Russian Federation for \$257 million in cash.

In early January 2005, the company and BHP Billiton announced that they had completed the sale of their respective equity interests in Integris Metals, Inc., a metals service center company engaged in the processing and distribution of metals, to Ryerson Tull for \$410 million in cash plus assumption of debt, which was approximately \$234 million. Alcoa and BHP Billiton each owned 50% of Integris Metals.

In December 2004, Alcoa signed a letter of intent with Fujikura Ltd. of Japan in which Alcoa will obtain complete ownership of the Alcoa Fujikura Ltd. (AFL) automotive business based in Detroit, MI, and Fujikura will obtain complete ownership of the AFL telecommunications business, based in Nashville, TN. Alcoa and Fujikura currently hold a 51-49% respective ownership of both through the AFL joint venture. The transaction, expected to be implemented through a share exchange by Fujikura of all of its AFL shares for all shares in a new telecommunications subsidiary, including cash, is expected to be completed in the first half of 2005.

Also in December 2004, the company announced that it had sold a portion of its interest in the Juruti (Brazil) bauxite project to AWAC. In exchange for Alcoa's interest in the Juruti project, Alumina Limited, Alcoa's partner in AWAC, contributed \$40 million to AWAC.

In October 2004, Alcoa announced a reorganization of its management structure to better align itself with global markets. Alcoa created a new global primary business to serve the aluminum and alumina markets, and a new global extruded products business. It also created an integrated North American & European business to serve the mill products markets. The rigid packaging business, with major operations in the U.S. and Australia, will be organized into a new global business group, and combined with Alcoa's Asia operations and the global industrial foil business. These four new businesses, along with two existing global businesses serving the packaging and transportation markets, will give Alcoa a more simplified structure better suited to serve its customers.

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### **Bauxite Interests**

Aluminum is one of the most plentiful elements in the earth's crust. Aluminum is produced primarily from bauxite, an ore containing aluminum in the form of aluminum oxide, commonly referred to as alumina. Aluminum is made by extracting alumina from bauxite and then removing oxygen from the alumina. Alcoa processes most of the bauxite that it mines into alumina. The company obtains bauxite from reserves held by AWAC, from the company's interests in Brazil, and under both long-term and short-term contracts and mining leases. In 2004, Alcoa consumed 31.0 million metric tons (mt) of bauxite from its own reserves, 6.9 million mt from related third parties and 2.7 million mt from unrelated third parties. Alcoa's present sources of bauxite are sufficient to meet the forecasted requirements of its alumina refining operations for the foreseeable future. The following table provides information regarding the company's bauxite interests:

#### **Alcoa Active<sup>1</sup> Bauxite Interests**

<u>Country</u>	<u>Project</u>	<u>Mining Rights (% Entitlement)</u>	<u>Expiration Date of Mining Rights</u>
Australia	Darling Range Mines	Alcoa of Australia Limited (AofA) <sup>2</sup> (100%)	2045
Brazil	Poços de Caldas	Aluminio (100%)	2017 <sup>3</sup>
Guinea	Boké	Compagnie des Bauxites de Guinée (CBG) <sup>4</sup> (100%)	2038 <sup>5</sup>
Jamaica	Clarendon/Manchester Plateau	Alcoa Minerals of Jamaica, L.L.C. <sup>6</sup> (50%) Clarendon Alumina Production Ltd. <sup>7</sup> (50%)	2042
Suriname	Lelydorp	BHP Billiton (45%) Suriname Aluminum Company, L.L.C. (Suralco) <sup>6</sup> (55%)	2033 <sup>8</sup>
	Coermotibo	BHP Billiton (45%) Suralco (55%)	2033 <sup>8</sup>

<sup>1</sup> Alcoa also has interests at the following locations that are bauxite reserves or do not currently produce bauxite: Cape Bougainville and Mitchell Plateau (Australia), Juruti (Brazil), and Kaimangrasi, Klaverblad, Brownsberg, Coermotibo DS, Lely Mountains, and Nassau (eastern Suriname). Aluminio holds an 8.6% interest, Abalco S.A. (Abalco) holds a 4.6% interest and Alcoa World Alumina LLC (AWA LLC) holds a 5% interest in Mineração Rio do Norte S.A. (MRN), a mining company jointly owned with affiliates of Alcan Inc. (Alcan), Companhia Brasileira de Alumínio, Companhia Vale do Rio Doce, BHP Billiton Plc (BHP Billiton) and Norsk Hydro. MRN owns the Trombetas bauxite-mining project in Brazil. Aluminio and Abalco purchase bauxite from MRN under long-term supply contracts. AWA LLC has agreed to purchase bauxite from the Trombetas project through 2019. In December 2004, Alcoa announced that it entered into an agreement with Alumina Limited to sell a portion of Alcoa's interests in the Juruti (Brazil) bauxite project to AWAC. In exchange, Alumina Limited, Alcoa's partner in AWAC, contributed \$40 million to AWAC. The Juruti deposit is being considered for development to supply bauxite to AWAC and third party operations, including the Alumar refinery.

<sup>2</sup> AofA is part of the AWAC group of companies and is owned 60% by Alcoa and 40% by Alumina Limited.

<sup>3</sup> Brazilian mineral legislation does not establish the duration of mining concessions. The concession remains in force until the complete exhaustion of the deposit. Based on proven bauxite reserves and the currently anticipated needs of the Poços de Caldas alumina refinery, Aluminio estimates that the concessions will last at least until 2017. Depending, however, on the refinery's actual and future needs, the rate at which the deposits are explored and government approval, the concessions may be extended to (or expire at) a later (or an earlier) date.

<sup>4</sup> AWA LLC owns a 45% interest in Halco (Mining), Inc. Halco owns 51% and the Guinean Government owns 49% of CBG, which has the exclusive right through 2038 to develop and mine bauxite in a 10,000 square-mile area in northwestern Guinea.

<sup>5</sup> Alcoa has a bauxite purchase contract with CBG that will provide Alcoa with bauxite through 2011.

<sup>6</sup> This entity is part of the AWAC group of companies, owned 60% by Alcoa and 40% by Alumina Limited.

<sup>7</sup> Clarendon Alumina Production Ltd. is a wholly-owned subsidiary of the Government of Jamaica.

<sup>8</sup> While mining rights extend until 2033, bauxite reserves proven to date extend until 2023.

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**Alumina Refining Facilities and Capacity**

Alcoa is the world's leading producer of alumina. Alcoa's alumina refining facilities and its worldwide alumina capacity are shown in the following table:

**Alumina Refining Capacity**

Country	Facility	Owners (% of Ownership)	Nameplate Capacity <sup>1</sup> (000 MTPY)	Alcoa Consolidated Capacity <sup>2</sup> (000 MTPY)
Australia	Kwinana	AofA <sup>3</sup> (100%)	2,000	2,000
	Pinjarra	AofA (100%)	3,500 <sup>4</sup>	3,500
	Wagerup	AofA (100%)	2,300	2,300
Brazil	Poços de Caldas	Aluminio (100%)	300	300
	Alumar	Abalco <sup>3</sup> (18.9%) Alcan <sup>5</sup> (10%) Aluminio (35.1%) BHP Billiton <sup>5</sup> (36%)	1,380	745
Jamaica	Jamalco	Alcoa Minerals of Jamaica, L.L.C. <sup>3</sup> (50%) Clarendon Alumina Production Ltd. (50%)	1,250	625
Spain	San Ciprián	Alúmina Española, S.A. <sup>3</sup> (100%)	1,330	1,330
Suriname	Suralco	BHP Billiton <sup>5</sup> (45%) Suralco (55%)	2,007	1,104
U.S.	Point Comfort, Tex.	AWA LLC <sup>3</sup> (100%)	2,305	2,305
TOTAL			16,372	14,209

<sup>1</sup> Nameplate capacity is an estimate based on design capacity and normal operating efficiencies and does not necessarily represent maximum possible production.

<sup>2</sup> The figures in this column reflect Alcoa's share of production from these facilities. For sites owned by AWAC entities, Alcoa takes 100% of the production from these facilities.

<sup>3</sup> This entity is part of the AWAC group of companies, owned 60% by Alcoa and 40% by Alumina Limited.

<sup>4</sup> In 2004, Alcoa received the Western Australian Government's environmental approval for its previously announced Pinjarra alumina refinery efficiency upgrade, which will increase production at the facility by 600,000 mt per year. Completion of the upgrade is expected by the end of 2005.

<sup>5</sup> The named company or an affiliate holds this interest.

In December 2004, AWAC and the Government of Jamaica signed an agreement in principle to expand the Jamalco alumina refinery in Clarendon, Jamaica by at least an additional 1.5 million mt per year (mtpy). The expansion will more than double the refinery's total capacity to at least 2.8 million mtpy. In addition, AWAC ownership in the refinery will increase from 50% to 70%. The Government of Jamaica through Clarendon Alumina Production, Ltd. will continue to own the remaining 30%. A final decision to move forward on the project is expected to be made in the first half of 2005. Upon approval, it is expected that the expansion project will be completed by the end of 2007.

In November 2004, AWA LLC, Alcan Inc. and the Government of the Republic of Guinea signed a protocol for developing jointly a 1.5 million mtpy alumina refinery in Guinea, West Africa. This protocol sets out the items and framework for the alumina refinery project that will be negotiated as part of the memorandum of understanding (MOU) signed by AWA LLC and Alcan in May 2004. A detailed feasibility study for the refinery is expected to be completed by mid-2005, with construction to begin shortly thereafter. The refinery, which would be operated by Alcoa, would be expected to have an initial 1.5 million mtpy capacity, with expansion capability. Production is expected by early 2008.

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Alcoa and other joint venture owners of the Alumar refinery in São Luís, Brazil have expedited the engineering efforts and work toward securing permits for the 2 million mtpy expansion of the Alumar alumina refinery. The expansion calls for a retrofit of the existing unit and the addition of a second, state-of-the-art unit at the refinery. Upon completion, the facility's capacity will be 3.3 million mtpy. It is expected that the project will be completed by early 2007.

In January 2003, Suralco and BHP Billiton signed an MOU with the Government of Suriname providing for (i) continuation and expansion of mining and refining activities in eastern Suriname and (ii) various exploration and other activities over the next two years relating to the feasibility of bauxite and alumina investments in western Suriname. Under the MOU, Suralco and BHP Billiton have exclusive rights in western Suriname and have committed to spend up to \$8.5 million over 21-25 months to explore this opportunity, shared 55% (Alcoa) and 45% (BHP Billiton).

In 2003 Suralco broke ground on its capacity expansion at the Paranam alumina refinery in Suriname by 250,000 mtpy, an increase of approximately 13% that will bring total capacity of the plant to approximately 2.2 million mtpy. The expansion is substantially completed as of February 2005, six months ahead of schedule. Suralco and BHP Billiton have also signed an agreement extending the terms of their existing joint venture agreement on bauxite mining and alumina refining in eastern Suriname to 2025.

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**Primary Aluminum Facilities and Capacity**

The company's primary aluminum smelters and their respective capacities are shown in the following table:

**Alcoa Worldwide Smelting Capacity**

Country	Facility	Owners (% Of Ownership)	Nameplate Capacity <sup>1</sup> (000 MTPY)	Alcoa Consolidated Capacity <sup>2</sup> (000 MTPY)
Australia	Point Henry	AofA (100%)	185	185
	Portland	AofA (55%)		
		CITIC (22.5%)		
Brazil	Poços de Caldas	Marubeni (22.5%)	353	194
		Aluminio (100%)	90	90
		Aluminio (53.66%)		
Canada	São Luís (Alumar)	BHP Billiton (46.34%)	375	201
		Alcoa (100%)	438	438
		Alcoa (74.95%)		
Canada	Baie Comeau, Que.	Aluminium Pechiney (25.05%)	409 <sub>3</sub>	307 <sub>3</sub>
		Alcoa (100%)	254	254
		Alcoa (100%)		
Italy	Fusina	Alcoa (100%)	44	44
		Alcoa (100%)	149	149
Spain	Portovesme	Alcoa (100%)	88	88
		Alcoa (100%)	84	84
U.S.	La Coruña	Alcoa (100%)	218	218
		Alcoa (100%)		
		Alcoa (100%)		
U.S.	Evansville, Ind. (Warrick)	Alcoa (100%)	309 <sub>4</sub>	309 <sub>4</sub>
		Alcoa (61%)		
	Frederick, Md. (Eastalco)	Mitsui & Co. Ltd. (39%)	195	119
		Alcoa (100%)	120 <sub>5</sub>	120 <sub>5</sub>
	Massena, N.Y.	Alcoa (100%)	130 <sub>6</sub>	130 <sub>6</sub>
	St. Lawrence, N.Y.	Alcoa (100%)	125 <sub>6</sub>	125 <sub>6</sub>
	Mount Holly, S.C.	Alcoa (50.33%)		
		Century Aluminum Company (49.67%)	224	113
	Alcoa, Tenn.	Alcoa (100%)	215	215
	Rockdale, Tex.	Alcoa (100%)	267 <sub>7</sub>	267 <sub>7</sub>
	Ferndale, Wash. (Intalco)	Alcoa (61%)		
		Mitsui & Co. Ltd. (39%)	278 <sub>8</sub>	170 <sub>8</sub>
Wenatchee, Wash.	Alcoa (100%)	184 <sub>9</sub>	184 <sub>9</sub>	
TOTAL			4,734	4,004

<sup>1</sup> Nameplate capacity is an estimate based on design capacity and normal operating efficiencies and does not necessarily represent maximum possible production.

<sup>2</sup> The figures in this column include the minority interests in facilities owned by AofA. Alcoa takes 100% of the production from these facilities.

<sup>3</sup> In July 2004, Alcoa cut production from two pot lines to one at the Bécancour aluminum smelter due to a strike at the facility, cutting production to one third of the facility's capacity. In November 2004, the Syndicat des Métallurgistes unis d' Amerique (local 9700) approved a new five-year labor agreement at the Bécancour smelter. With the new agreement, Alcoa plans to restart the two idled potlines, with full production expected to be reached by the end of April 2005.

<sup>4</sup> The Warrick facility currently has one idled potline.

<sup>5</sup> The Badin, North Carolina facility has been idled since August 2002.

<sup>6</sup> In August 2004, Alcoa announced that it would restart 60,000 mtpy of capacity at its Massena and St. Lawrence, New York facilities which had been idled in May 2003. Upon completion of the restart, the smelters will operate at capacity.

<sup>7</sup> Two (of eight) potlines were physically removed from the Rockdale, Texas facility.



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<sup>8</sup> In November 2003, Alcoa idled an additional potline. Currently, one potline is operating.

<sup>9</sup> The Wenatchee, Washington facility has been idled since July 2001. In October 2004, Alcoa announced that workers at the facility, represented by the United Steelworkers of America and the Aluminum Trades Council of Wenatchee, Washington, accepted a new labor agreement. Two of the four lines at the smelter are expected to be restarted by mid-2005, based on availability of acceptable power contracts.

In 2004, Alcoa made significant progress toward restarting smelting capacity at the Wenatchee, Washington; Bécancour, Canada; and Massena and St. Lawrence, New York facilities. Once these restarts are complete, Alcoa will have 361,000 mtpy of idle capacity on a base capacity of 4,004,000 mtpy.

In January 2005, Alcoa and the Government of the Republic of Ghana announced that they signed an MOU to evaluate the development an integrated aluminum industry in Ghana that would include bauxite mining, alumina refining, aluminum production and rail transportation infrastructure upgrades. Alcoa will now work with the Government to conduct expedited feasibility studies, including a study on the creation of an alumina refinery with an initial capacity of up to 1.5 million mtpy. These studies are expected to be completed in 2006, at which time the parties would negotiate definitive agreements on mining, refining, smelting, rail upgrades and ownership structure, as well as total investment costs. The MOU also calls for the initial restart of three of the five existing potlines, representing 120,000 mtpy, at the Tema, Ghana smelter owned by Volta Aluminum Company Limited (Valco). Valco is owned 90% by the Government of the Republic of Ghana and 10% by Alcoa's subsidiary, Reynolds Metals Company. The smelter, which is currently idled, will be restarted as soon as practical under an interim power rate agreement with the Volta River Authority, with alumina supply arranged by Alcoa.

In November 2004, Alcoa announced that it will invest approximately \$284 million to build a new anode plant in Mosjøen, Norway. The facility, which will be built together with Elkem ASA, will produce anodes for Alcoa's Fjarðaál, Iceland and Elkem Aluminium ANS' Mosjøen, Norway smelters. Construction of the anode plant, which is contingent on government approvals, is expected to be completed by 2007.

In October 2004, Alcoa announced that the 2003 MOU between it and the Government of the Kingdom of Bahrain was no longer in force. Under the terms of that MOU, Alcoa would have acquired a 26% stake in Alba, a Bahrain company that owns and operates an aluminum smelter with 512,000 mtpy of capacity. The company and the Government were unable to reach mutually acceptable terms to finalize the terms of the MOU.

In September 2004, Alcoa announced the start of an environmental impact assessment under terms of reference established by the Trinidad and Tobago Environmental Authority for a potential aluminum smelter in southwest Trinidad. This followed the signing in May 2004 by Alcoa and the Government of the Republic of Trinidad and Tobago of an MOU for a state-of-the-art, low emission smelter with a capacity of at least 250,000 mtpy. The MOU calls for Alcoa to take at least a 60% ownership stake in the smelter, with a Government state enterprise having responsibility for the remainder. Alcoa will take a lead role in the management and operation of the smelter and will have a right to 60% of the metal produced, with the Government state enterprise having a right to the remaining 40%, but with the commitment to make this metal available to downstream investors, including Alcoa.

In July 2004, Alcoa broke ground on its new 322,000 mtpy Fjarðaál aluminum smelter in East Iceland. Bechtel Group, Inc. and its partner, HRV, an Icelandic engineering consortium, will manage the smelter construction. The smelter is scheduled to begin production in the spring of 2007. In January 2005, an Icelandic district court found, in part, in favor of a plaintiff who was challenging the Icelandic Planning Agency's procedures in performing the environmental assessment which resulted in an Environmental Operating Permit being issued to the Fjarðaál smelter. The case has been appealed to the Icelandic Supreme Court by both sides. The actual impact of the decision is unknown at this time.

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In July 2004, Alcoa announced that Aluminio would expand capacity at its share of the São Luís (Alumar) aluminum smelter by 30% or 63,000 mtpy, bringing Aluminio's share of smelting capacity there to 262,000 mtpy. When complete, Alcoa's share of output from the overall smelter will grow from 54 to 60%. Construction of the expansion began in the fourth quarter of 2004, with production expected to begin in the fourth quarter of 2005.

In June 2004, Alcoa announced that despite good faith negotiations between the company and the Quebec Government, it could not reach an agreement that would have allowed Alcoa to implement its previously announced plan to expand and upgrade its Baie Comeau, Quebec aluminum smelter. Despite this situation, Alcoa intends to keep the smelter in operation at least until 2010, as long as environmental requirements, energy availability and market conditions will allow.

In February 2004, Alcoa sold its 10% stake in the Alscon smelter in Ikot Abasi, Nigeria to the Federal Government of Nigeria. The Alscon smelter was 70% owned by the Federal Government and 20% held by Ferrostaal AG. Only a portion of the facility has ever been operated and has been idle since mid-1999. The Bureau of Public Enterprise, an agency of the Nigerian Government, is working to privatize Alscon. In connection with the sale, the company also terminated its entitlement to purchase all aluminum produced at the smelter for export.

Alcoa also will explore the aluminum smelting and associated hydroelectric power opportunities in western Suriname. In January 2003, Suralco signed an MOU with the Government of Suriname providing for an initial 18-month exclusive period of investigation of the feasibility of smelting and associated hydroelectric power investment in western Suriname. In December 2004, the parties agreed to extend the MOU through December 31, 2005. Under the MOU Alcoa has budgeted \$1.5 million - \$7.5 million in expenditures over this period to assess the investment potential and, if favorable, to negotiate an investment agreement with the Government.

Alcoa owns interests in the following primary aluminum facilities that are accounted for on the equity or cost basis method. The capacity associated with these facilities is not included in Alcoa's consolidated capacity.

<u>Country</u>	<u>Facility</u>	<u>Owners (% Of Ownership)</u>	<u>Nameplate Capacity<sup>1</sup> (000 MTPY)</u>
Germany	Hamburg	Alcoa (33.33%) Austria Metall AG (33.33%) Norsk Hydro (33.33%)	132
Ghana	Tema	Alcoa (10%) Government of the Republic of Ghana (90%)	200 <sup>2</sup>
Norway	Lista	Alcoa (50%) Elkem ASA (50%)	94
	Mosjøen	Alcoa (50%) Elkem ASA (50%)	188
Venezuela	Alcasa	Alcoa (7.31%) Corporación Venezolana de Guayana (CVG) and Japanese Interests (92.69%)	210

<sup>1</sup> Nameplate capacity is an estimate based on design capacity and normal operating efficiencies and does not necessarily represent maximum possible production.

<sup>2</sup> In 2003, the smelter was idled due to a power shortage. In 2004, Kaiser Aluminum & Chemical Corporation sold its 90% interest in the facility to the Government of the Republic of Ghana.

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### **Energy**

Alcoa produces aluminum from alumina by an electrolytic process requiring large amounts of electric power. Electric power accounts for approximately 25% of the company's primary aluminum costs. Alcoa generates approximately 24% of the power used at its smelters worldwide and generally purchases the remainder under long-term arrangements. The paragraphs below summarize the sources of power and material long-term power arrangements for Alcoa's smelters.

#### *North America - Electricity*

For its 13 North American smelters, the company (largely through its wholly-owned subsidiary, Alcoa Power Generating Inc. (APGI)) generates approximately 25% of the power requirements, and generally purchases the remainder under long-term contracts. APGI owns and operates two hydroelectric projects consisting of eight dams under Federal Energy Regulatory Commission (FERC) licenses. The Tapoco hydroelectric project received its new license in January 2005; the Yadkin hydroelectric project license is up for renewal in 2008.

In the Pacific Northwest, Alcoa has a contract with Chelan County Public Utility District located in the State of Washington that is sufficient to supply about half of the capacity of the Wenatchee smelter through October 2011. In addition, Alcoa has a contract through September 2006 for a limited amount of power from the Bonneville Power Administration (BPA) that can be used at the Wenatchee smelter as well as at the Intalco smelter. Alcoa is currently returning part of its BPA power through the end of the contract period.

The company, through APGI, generates substantially all of the power used at its Warrick smelter using nearby coal reserves. A 1996 coal supply contract satisfies up to 70% of the smelter's fuel requirements through June 2006. Annual contracts satisfy the remainder of the fuel requirements. In April 2001, under the terms of an operating agreement, the company assumed operation of the power plants that supply the Warrick smelter from Southern Indiana Gas & Electric Company until at least 2008.

Power for the Rockdale smelter is generated by company-owned generating units and TXU Generation Company LP-owned generating units, both using lignite supplied by the company's Sandow Mine. The company is in the process of opening a new lignite mine, the Three Oaks Mine, on adjacent land it owns or controls. Company-owned generating units supply about one half of the total electricity requirements of the smelter, although this capacity will retire not later than 2007. TXU Generation Company LP supplies the balance through a long-term power contract that does not expire until at least the end of 2038, with the parties having the right to terminate the contract after 2013 if there has been an unfavorable change in law or after 2025 if the cost of the electricity exceeds the market price.

APGI hydroelectric facilities provide electric power for the aluminum smelters at Alcoa, Tennessee and Badin, North Carolina. APGI received a renewed 40-year FERC license for the Tapoco project in 2005. The Tennessee smelter also purchases power from the Tennessee Valley Authority under a contract that extends to 2010. With the Badin smelter idled, power generated from APGI's Yadkin system is largely being sold to an affiliate, Alcoa Power Marketing, Inc.

In the Northeast, the purchased power contracts for the Massena and St. Lawrence, New York smelters expire not earlier than June 30, 2013, following their extension for 10 years upon New York Power Authority having relicensed one of its hydroelectric projects. The company, however, may terminate either of these contracts with one year's notice.

The Deschambault and Bécancour smelters located in Quebec purchase electricity under long-term contracts with Hydro-Quebec that expire in 2014, subject to extension provisions. The smelter located in Baie Comeau, Quebec purchases approximately 65% of its power needs under the Hydro-Quebec contract and receives the rest of its power needs from a 40%-owned hydroelectric generating company, Manicouagan Power Company.

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The Eastalco smelter located in Frederick, Maryland and the Mt. Holly smelter in South Carolina purchase electricity under contracts that expire December 31, 2005 and December 31, 2015, respectively, subject to certain extension provisions.

### *Australia - Electricity*

Power is generated from extensive brown coal deposits covered by a long-term mineral lease held by AofA, and that power currently provides approximately 40% of the electricity for the company's smelter in Point Henry, Victoria. The State Electricity Commission of Victoria provides the remaining power for this smelter and all power for the Portland smelter, under contracts with AofA that extend to 2014 and 2016, respectively.

### *Brazil - Electricity*

The Alumar smelter conducted an auction to purchase electric power for the period from July 2004 to December 2024, as its prior agreement expired in June 2004. Centrais Eléctricas do Norte do Brasil S.A. – Eletronorte won the auction, and a new electric power supply contract was entered into in June 2004.

Aluminio participates in a consortium that owns the Machadinho hydroelectric power plant in southern Brazil, which began to generate power at full capacity in 2002. Aluminio receives its share of the plant's output, which is sufficient to cover the remaining 51% of its operating needs at the Poços de Caldas smelter.

Aluminio also has a 42% interest in Energética Barra Grande S.A. – BAESA, which is building the Barra Grande hydroelectric power plant in southern Brazil. Barra Grande is expected to reach full generating capacity in 2006. Aluminio's share of the project will cover an additional portion of its currently purchased needs at the Poços de Caldas smelter.

### *Europe - Electricity*

The company purchases electricity for its Italian smelters in the recently deregulated market, under annual contracts and special conditions expiring in December 2005 for the Fusina smelter, and in June 2007 for the Portevesme smelter, which benefits from some new measures applicable to heavy industry located on the island of Sardinia. These new measures are, however, under a state aid inquiry by the European Union (EU), and the Italian government will respond to the EU in the first half of 2005.

The company's smelters at San Ciprián, La Coruña and Avilés, Spain purchase electricity from the power grid at the lowest applicable industrial tariff rate under regulations expiring in December 2006, which possibly may be extended to 2010.

### *Iceland – Electricity*

As noted above, Alcoa broke ground in 2004 on construction of its new Fjarðaál smelter in Eastern Iceland. Central to those arrangements is a 40-year power contract under which Landsvirkjun, the Icelandic national power company, will build a dam and power project, and supply competitively priced electricity to the smelter.

### *Minority Interests - Electricity*

The smelters in Germany, Ghana, Norway and Venezuela, in which Alcoa has only an equity stake and is not the operational manager, have made a variety of long-term electricity purchase arrangements, under the managing partner or entity. The power contract for Germany runs through December 2005; discussions are underway with the supplier, HEW, regarding a possible extension. The other contracts are up for renewal at various times, the majority of them in the period from 2011 to 2020.

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### *Canada & U.S. - Natural Gas*

The company generally procures natural gas on a competitively bid basis from a variety of sources including producers in the gas production areas and independent gas marketers. For Alcoa's larger consuming locations in Canada and the U.S., the gas commodity as well as interstate pipeline transportation is procured to provide increased flexibility and reliability. Contract pricing for gas is typically based on a published industry index or NYMEX price. The company may choose to reduce its exposure to NYMEX pricing by hedging a portion of required natural gas consumption.

### *Australia - Natural Gas*

AofA holds a 20% equity interest in a consortium which bought the Dampier-to-Bunbury natural gas pipeline in October 2004. This pipeline transports gas from the North West gas fields to Alcoa's alumina refineries and other users in the Southwest of Western Australia. AofA uses gas to co-generate steam and electricity for its alumina refining processes at the Kwinana, Pinjarra and Wagerup refineries.

## **Sources and Availability of Raw Materials**

The major purchased raw materials in 2004 for each of the company's segments are listed below.

### **Alumina & Chemicals**

bauxite  
caustic soda  
electricity  
fuel oil  
natural gas

### **Primary Metals**

alumina  
aluminum fluoride  
calcined petroleum coke  
carbon  
cathode blocks  
caustic soda  
electricity  
liquid pitch  
natural gas  
silicon carbide

### **Flat-Rolled Products**

alloying materials  
aluminum scrap  
coatings  
electricity  
natural gas  
primary aluminum (rolling ingot)

### **Engineered Products**

cobalt  
electricity  
natural gas  
nickel  
nitrogen  
primary aluminum (billet)  
steel  
titanium

### **Packaging & Consumer**

aluminum  
electricity  
natural gas  
paper  
polyethylene resin compound  
polypropylene resin compound  
polyvinyl chloride resin compound

### **Other**

aluminum tape  
copper  
glass fiber  
photopolymer  
polyvinyl chloride resin compound

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Other materials generally are purchased from third party suppliers under competitively priced supply contracts or bidding arrangements. The company believes that the raw materials necessary to its business are and will continue to be available.

### **Joint Ventures and Investments**

The company's principal alliances and joint ventures are included in its "upstream" operating segments (alumina and chemicals and primary metals) as shown in the tables above relating to those segments.

Alcoa's other significant joint ventures and investments are as follows:

**Alcoa Fujikura Ltd.** Alcoa Fujikura Ltd. (AFL), a global joint venture headquartered in Franklin, Tennessee, is currently owned 51% by Alcoa and 49% by Fujikura Ltd. AFL produces and markets electronic and electrical distribution systems for the automotive industry, as well as fiber optic products and systems for selected electric utilities, telecommunications, cable television and datacom markets. AFL subsidiaries provide EF&I (engineer, furnish and install) services to the telecom and CATV industries. In December 2004, Alcoa and Fujikura signed a Letter of Intent in which Alcoa will obtain complete ownership of the AFL automotive business. The transaction, which is expected to be implemented through a share exchange by Fujikura of all of its AFL shares for all shares in a new telecommunications subsidiary, including cash, should be completed in the first half of 2005.

**Alcoa Kobe Transportation Products, Inc. and Kobe Alcoa Transportation Products Ltd.** These joint ventures, owned 50% by Alcoa and 50% by Kobe Steel, Ltd. (Kobe), continue despite the termination in 2003 of the Alcoa-Kobe joint ventures in rolled aluminum sheet products for aluminum cans. The focus of these ventures, consisting of one company in the U.S. and one in Japan, is to expand the use of aluminum sheet products in passenger cars and light trucks. As a result of a restructuring of the venture in 2000, the U.S. company focuses on research and development efforts, while the Japanese company engages in commercial (manufacturing, marketing and sales) as well as research and development efforts, to serve the transportation industry. In 2003, Alcoa and Kobe further agreed to discuss extending this cooperation into joint research and development products related to other aluminum automotive products such as applied technology of aluminum extrusion and casting.

**Alcoa (Shanghai) Aluminum Products Company Limited.** Alcoa (Shanghai) Aluminum Products Company Limited is owned 60% by Alcoa and 40% by Shanghai Light Industry Equipment (Group) Co., Ltd. It produces aluminum foil products in Shanghai, China.

**Aluminum Corporation of China Limited (Chalco).** In November 2001, Alcoa entered into a strategic alliance with Chalco and its parent company, Aluminum Corporation of China (Chinalco). Under this alliance, in 2001 Alcoa became a strategic investor in Chalco's global offering and listing on the New York Stock Exchange and The Stock Exchange of Hong Kong. Alcoa's investment is 8% of the issued and outstanding shares. In connection with its investment, Alcoa is entitled to one seat on Chalco's board of directors. In early 2004, Chalco made an additional public share offering in which Alcoa purchased sufficient shares to maintain its holdings in Chalco at the 8% level. Chinalco remains the largest shareholder in Chalco. As part of the strategic alliance, Alcoa and Chalco also agreed that they would enter into a Sino-foreign joint venture at Chalco's facility in Pingguo. Pingguo is one of the most efficient alumina and aluminum production facilities in China and is located in the Guangxi region. The Pingguo joint venture will be owned 50% by Alcoa and 50% by Chalco. Alcoa will transfer management, operational and technical expertise, and best practices to the Pingguo joint venture. The parties continue to work diligently on terms of their joint venture and to obtain the necessary government approvals.

**Bohai.** Alcoa and the CITIC Group are currently in discussion to undertake an expansion of a facility producing aluminum rolled products, including foil, in Qinghuangdao, China. Requests have been made to the Government of China for approval.

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**Elkem Aluminium ANS.** This Norwegian partnership is owned 50% by Alcoa and 50% by Elkem ASA, with Elkem as managing partner. The partnership is the second largest aluminum producer in Norway and operates two plants: Mosjøen and Lista. These facilities supply extrusion billets, rolling ingots and foundry ingots to leading rolling mills, extrusion plants and foundries in Europe. Alcoa holds a 46.5% investment in Elkem ASA, one of Norway's largest industrial companies and a leading supplier of metals and materials. On February 8, 2005, Alcoa received a tender offer from Orkla ASA to purchase its 46.5% stake in Elkem ASA. Alcoa is currently in the process of evaluating the offer, which remains open through March 8, 2005.

**Yunnan Xinmeilu Aluminum Foil Co., Ltd.** This joint venture is owned 56% by Alcoa and 44% by Yunnan Aluminum Processing Factory. It produces aluminum foil products in Kunming, China. Alcoa does not have management control of this facility.

### Patents, Trade Secrets and Trademarks

The company believes that its domestic and international patent, trade secret and trademark assets provide it with a significant competitive advantage. The company's rights under its patents, as well as the products made and sold under them, are important to the company as a whole and, to varying degrees, important to each business segment. The patents owned by Alcoa generally concern particular products or manufacturing equipment or techniques. Alcoa's business is not, however, materially dependent on patents, and no individual patent is of material importance to any segment.

The company has a number of trade secrets, mostly regarding manufacturing processes and material compositions that give many of its businesses important advantages in their markets. The company continues to strive to improve those processes and generate new material compositions that provide additional benefits.

The company also has a number of domestic and international registered trademarks that have significant recognition at the consumer level, and others that have significant recognition within the markets that are served. Examples include Alcoa and the Alcoa Symbol for aluminum products, Howmet metal castings, Huck fasteners, Kawneer building panels, Dura Bright surface treatments, Presto storage bags, Cut-Rite wax paper, Baco household wraps, Reynolds plastic wrap and Reynolds Wrap aluminum foil. The company's rights under its trademarks are important to the company as a whole and, to varying degrees, important to each business segment.

### Competitive Conditions

Alcoa is the world's leading producer of alumina, primary aluminum and fabricated aluminum. Alcoa is subject to highly competitive conditions in all aspects of its aluminum and non-aluminum businesses. Competitors include a variety of both U.S. and non-U.S. companies in all major markets. Price, quality and service are the principal competitive factors in Alcoa's markets. Where aluminum products compete with other materials — such as steel and plastics for automotive and building applications; magnesium, titanium, composites and plastics for aerospace and defense applications; steel, plastics and glass for packaging applications; and wood and vinyl for building and construction applications — aluminum's diverse characteristics, particularly its light weight, recyclability and flexibility, are also significant factors. For Alcoa's segments that market products under Alcoa's brand names, brand recognition and brand loyalty also play a role.

### Research and Development

Alcoa, a technology leader in the aluminum industry, engages in research and development programs that include process and product development, and basic and applied research. Alcoa conducts these activities within its businesses and at the Alcoa Technical Center near Pittsburgh. Expenditures for R&D activities were \$182 million in 2004, \$190 million in 2003 and \$209 million in 2002.

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Most of the major process and product areas within the company have a Technology Management Review Board (TMRB) consisting of members from various worldwide locations. Each TMRB is responsible for formulating and communicating a technology strategy for the corresponding product and process area, developing and managing the technology portfolio and ensuring the global transfer of technology. Certain business units alternatively conduct these activities and research and development programs within the worldwide business unit, supported by the Alcoa Technical Center. Technical personnel from the TMRBs, the Technical Center and such business units also participate in the corresponding Market Sector Lead Teams. In this manner, research and development activities are aligned with corporate and business unit goals.

During 2004, the company continued work on new developments in inert anode technology and the pursuit of patent protection in jurisdictions throughout the world related to these advanced technologies. Progress has been successful in many respects as a result of anode assembly testing, although there remain technical and cost targets to overcome. Technical targets include improvement of anode life, optimization of pot operating conditions and maintenance of metal purity. If the technology proves to be commercially feasible, the company believes that it would be able to convert its existing potlines to this new technology, resulting in significant operating cost savings. The new technology would also generate environmental benefits by reducing and eliminating certain emissions. No timetable has been established for commercial use.

### **Environmental Matters**

Information relating to environmental matters is included in three areas of the Annual Report: under Management's Discussion and Analysis of Financial Condition and Results of Operations, under the heading "Environmental Matters" on pages 33 and 34, in Note A to the financial statements under the caption "Environmental Expenditures" on page 45 and in Note Y to the financial statements on pages 61 and 62.

### **Employees**

Total worldwide employment at year-end 2004 was 119,000 people.

In November 2004, the Syndicat des Métallurgistes unis d' Amerique (local 9700) approved a new five-year labor agreement at the Bécancour, Quebec smelter.

In October 2004, Alcoa and the United Steelworkers of America (USWA) and the Aluminum Trades Council of Wenatchee, Washington, an affiliate of the USWA, reached an agreement at Alcoa's idled smelter in Wenatchee. Upon union approval of the agreement, Alcoa took steps to restart two of the four lines at the smelter, which has been idled since July 2001. The restart is expected to be completed by mid-2005.

Also in October 2004, Alcoa and the USWA jointly announced that the parties had resolved their dispute over contracting-out work that resulted in four Alcoa locations being served with 5-day notices. Union members at Alcoa plants in Alcoa, Tennessee; Evansville, Indiana; Rockdale, Texas; and Davenport, Iowa each asked for five days of talks with Alcoa management in July 2004 regarding grievances involving subcontracting.

On October 12, 2001, the USWA ratified a new five-year labor agreement that covers 19 locations in the United States and about 12,000 employees. The contract is effective from June 1, 2001 through May 31, 2006.

### **Cautionary Statements under the Private Securities Litigation Reform Act of 1995**

#### *Forward-Looking Statements*

This report and the portions of the Annual Report incorporated by reference herein contain (and oral communications made by Alcoa may contain) forward-looking statements that may be identified by their use of words like "anticipates," "believes," "estimates," "expects," "hopes," "targets," "should," "will," "will likely result,"



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“forecast,” “outlook,” “projects” or other words of similar meaning. All statements that address Alcoa’s expectations or projections about the future, including statements about Alcoa’s strategy for growth, cost reduction goals, expenditures and financial results, are forward-looking statements. Forward-looking statements are based on Alcoa’s estimates, assumptions and expectations of future events and are subject to a number of risks and uncertainties. Alcoa cannot guarantee that these estimates, assumptions and expectations are accurate or will be realized. Alcoa disclaims any intention or obligation (other than as required by law) to update or revise any forward-looking statements.

### *Risk Factors*

In addition to the factors discussed elsewhere in this report and in Management’s Discussion and Analysis in the Annual Report, the following are some of the important factors that could cause Alcoa’s actual results to differ materially from those projected in any forward-looking statements:

- Alcoa is the world’s leading producer of primary aluminum, fabricated aluminum, and alumina. The aluminum industry is highly cyclical, with prices subject to worldwide market forces of supply and demand and other influences. Prices can be volatile. Although Alcoa uses contractual arrangements with customers, as well as forward, futures and options contracts, to manage its exposure to the volatility of LME-based prices, and its product and segment diversified, Alcoa’s results of operations could be affected by material adverse changes in economic or aluminum industry conditions generally or in the markets served by Alcoa, including the transportation, building, construction, distribution, packaging, industrial gas turbine and other markets.
- Alcoa consumes substantial amounts of energy in its operations. Although Alcoa generally expects to meet the energy requirements for its alumina refineries and primary aluminum smelters from internal sources or from long-term contracts, the following could affect Alcoa’s results of operations:
  - significant increases in electricity costs rendering smelter operations uneconomic;
  - significant increases in natural gas prices;
  - unavailability of electrical power due to droughts;
  - interruptions in energy supply due to equipment failure or other causes; or
  - inability to extend contracts upon expiration on economical terms.
- Alcoa’s ability to grow earnings will be affected by increases in the cost of raw materials, including caustic soda, calcined petroleum coke and resins, in addition to energy. Alcoa may not be able to offset fully the effects of higher raw material costs or energy costs through price increases, productivity improvements or cost reduction programs.
- As part of its strategy for growth, Alcoa has made and may continue to make acquisitions and divestitures and form strategic alliances. There can be no assurance that these will be completed or beneficial to Alcoa or that targeted completion dates will be met.
- Alcoa has investments, activities and significant expansion projects in numerous countries outside the U.S. and in emerging markets, including Australia, Brazil, China, Guinea, Iceland, India, Jamaica, Korea, Mexico, Russia, Suriname and Trinidad. These significant expansion projects are in various stages of development and, depending on business and/or regulatory circumstances, may not be completed. Changes in the laws or governmental policies in the countries in which Alcoa operates could affect its business in such countries and Alcoa’s results of operations.
- Economic factors, including inflation and fluctuations in foreign currency exchange rates and interest rates, and competitive factors in the countries in which Alcoa operates, could affect its revenues, expenses and results of operations. In particular, lower valuation of the U.S. dollar against other currencies, particularly the Australian dollar, may affect profitability as some important raw materials are purchased in other currencies, while products generally are sold in U.S. dollars.

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- The markets for most aluminum products are highly competitive. In addition, aluminum competes with other materials, such as steel, plastics and glass, among others, for various applications in Alcoa's key markets. The willingness of customers to accept substitutions for the products sold by Alcoa, the ability of large customers to exert leverage in the marketplace to affect the pricing for fabricated aluminum products or other developments by or affecting Alcoa's competitors or customers could affect Alcoa's results of operations.
- A significant downturn in the business or financial condition of a key customer or customers supplied by Alcoa could affect Alcoa's results of operations in a particular period.
- Alcoa has undertaken and may continue to undertake productivity and cost-reduction initiatives to improve performance, including deployment of company-wide business process models, such as the Alcoa Business System and the Alcoa Enterprise Business Solution, an initiative designed to build a common global infrastructure across Alcoa for data, processes and supporting software. Alcoa also has undertaken a three-year cost savings challenge aimed at eliminating \$1.2 billion in costs by the end of 2006. There can be no assurance that these initiatives will be completed or beneficial to Alcoa or that any estimated cost savings from such activities will be realized.
- Alcoa is working on new developments in advanced smelting process technologies, including inert anode technology. There can be no assurance that such technologies will be commercially feasible or beneficial to Alcoa.
- Alcoa's operations worldwide are subject to numerous complex and increasingly stringent environmental laws and regulations. The costs of complying with such environmental laws and regulations, including participation in assessments and cleanups of sites, as well as internal voluntary programs, are significant and will continue to be so for the foreseeable future. Alcoa's results of operations or liquidity in a particular period could be affected by certain environmental matters, including remediation costs and damages related to several sites. Climate change agreements in several parts of the world may result in emission restrictions on carbon dioxide and other greenhouse gases.
- Alcoa's results of operations or liquidity in a particular period could be affected by new or increasingly stringent laws, regulatory requirements or interpretations or significant legal proceedings or investigations adverse to Alcoa, including product liability, safety and health and other claims.
- Alcoa's estimates of liabilities and expenses for pensions and other postretirement benefits incorporate significant assumptions including the rate used to discount the future estimated liability, the long-term rate of return on plan assets and several assumptions relating to the employee workforce (salary increases, medical costs, retirement age and mortality). Alcoa's results of operations, liquidity or shareholders' equity in a particular period could be affected by a decline in the rate of return on plan assets, the rate used to discount the future estimated liability or changes in employee workforce assumptions.
- Unexpected events, including supply disruptions, labor disputes, failure of equipment or processes to meet specifications, war or terrorist activities may increase the cost of doing business or otherwise impact Alcoa's financial performance.

The above list of important factors is not all-inclusive or necessarily in order of importance.

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### Item 2. Properties.

Alcoa's principal plants and holdings are under the following segments and in the following geographic areas:

#### ALUMINA AND CHEMICALS

**Bauxite:** See the table and related text in **Bauxite Interests** section on page 5.

**Alumina:** See the table and related text in **Alumina Refining Facilities and Capacity** section on pages 6-7.

#### PRIMARY METALS

See the table and related text in **Primary Aluminum Facilities and Capacity** section on pages 8-10.

#### FLAT-ROLLED PRODUCTS

##### Sheet and Plate:

Australia:	2	locations.
Europe:	9	locations in 7 countries.
South America:	1	location.
United States:	10	locations in 9 states.

##### Foil Products:

Asia:	2	locations in 1 country.
Australia:	1	location.
Europe:	1	location.
South America:	1	location.
United States:	3	locations in 3 states.

##### Can Reclamation:

Australia:	1	location.
Netherlands:	1	location.
United States:	2	locations in 1 state.

#### ENGINEERED PRODUCTS

##### Aerospace:

Asia:	1	location.
Canada:	2	locations in 2 provinces.
Europe:	6	locations in 3 countries.
United States:	19	locations in 13 states.

##### Auto Components:

Asia:	1	location.
Europe:	6	locations in 5 countries.
South America:	1	location.
United States:	12	locations in 11 states.

##### Architectural Extrusions:

Canada:	2	locations in 2 provinces.
Europe:	7	locations in 6 countries.
South America:	5	locations in 3 countries.
United States:	12	locations in 10 states.

##### Castings:

Asia:	1	location.
Australia:	1	location.
Canada:	4	locations in 4 provinces.
Europe:	9	locations in 7 countries.
Mexico:	1	location.
South America:	1	location.
United States:	20	locations in 12 states.

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<b><u>Extrusion, Tube:</u></b>	Asia:	1	location.
	Europe:	15	locations in 6 countries.
	South America:	4	locations in 3 countries.
	United States:	16	locations in 15 states.
<b><u>Fasteners:</u></b>	Australia:	1	location.
	Europe:	10	locations in 4 countries.
	Mexico:	1	location.
	United States:	10	locations in 6 states.

## **PACKAGING AND CONSUMER**

<b><u>Consumer Products:</u></b>	Canada:	1	location.
	Europe:	2	locations in 1 country.
	South America:	1	location.
	United States:	11	locations in 7 states.
<b><u>Flexible Packaging:</u></b>	Asia:	1	location.
	Europe:	1	location.
	United States:	7	locations in 5 states.
<b><u>Closures Machinery:</u></b>	Africa:	1	location.
	Asia:	7	locations in 6 countries.
	Europe:	5	locations in 5 countries.
	Mexico:	2	locations.
	South America:	8	locations in 7 countries.
	United States:	5	locations in 5 states.
<b><u>Graphics:</u></b>	Canada:	3	locations in 1 province.
	Mexico:	1	location.
	United States:	22	locations in 15 states.
<b><u>Food Packaging:</u></b>	Canada:	5	locations in 4 provinces.
	Europe:	2	locations in 2 countries.
	Mexico:	1	location.
	South America:	1	location.
	United States:	10	locations in 9 states.
<b><u>Protective Packaging:</u></b>	Canada:	2	locations in 2 provinces.
	United States:	5	locations in 2 states.
<b><u>Polymerization and Extrusion:</u></b>	Europe:	2	locations in 2 countries.
	United States:	5	locations in 5 states.

## **OTHER**

### **AFL**

<b><u>Automotive:</u></b>	Canada:	1	location.
	Central America:	2	locations in 1 country.
	Europe:	12	locations in 8 countries.
	Mexico:	6	locations.
	South America:	1	location.
	United States:	8	locations in 4 states.

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<b><u>Telecommunications:</u></b>	Europe:	1 location.
	Mexico:	1 location.
	United States:	6 locations in 5 states.
<b><u>Auto Engineering:</u></b>	Europe:	1 location.
	United States:	3 locations in 3 states.
<b><u>Home Exteriors:</u></b>	United States:	6 locations in 6 states.
<b><u>Other:</u></b>	Australia:	1 location.
	Canada:	1 location.
	Europe:	4 locations in 2 countries.
	South America:	9 locations in 3 countries.
	United States:	17 locations in 13 states.

Alcoa's corporate center is located at 201 Isabella Street, Pittsburgh, Pennsylvania 15212-5858. Alcoa's global office is located at 390 Park Avenue, New York, New York 10022-4608.

Alcoa leases some of its facilities; however, it is the opinion of management that the leases do not materially affect the continued use of the properties or their values. The company leases a portion of the equipment and facilities at its Texarkana, Texas plant. AFL and Southern Graphic Systems, Inc. lease most of their facilities. The portion of the packaging group that runs former Ivex Packaging Corporation plants, leases certain of its facilities.

Alcoa believes that its facilities are suitable and adequate for its operations. Although no title examination of properties owned by Alcoa has been made for the purpose of this report, the company knows of no material defects in title to any such properties. See Notes H and U to the financial statements for information on properties, plants and equipment and lease expense.

### **Item 3. Legal Proceedings.**

In the ordinary course of its business, Alcoa is involved in a number of lawsuits and claims, both actual and potential, including some that it has asserted against others. While the amounts claimed may be substantial, the ultimate liability cannot now be determined because of the considerable uncertainties that exist. It is possible that results of operations or liquidity in a particular period could be materially affected by certain contingencies. Management believes, however, that the disposition of matters that are pending or asserted will not have a material adverse effect on the financial position of the company.

### **Environmental Matters**

Alcoa is involved in proceedings under the Superfund or analogous state provisions regarding the usage, disposal, storage or treatment of hazardous substances at a number of sites in the U.S. The company has committed to participate, or is engaged in negotiations with federal or state authorities relative to its alleged liability for participation, in clean-up efforts at several such sites.

Since 1989, Alcoa has been conducting investigations and studies of the Grasse River, adjacent to Alcoa's Massena, New York plant site, under order from the U.S. Environmental Protection Agency (EPA) issued under Section 106 of the Comprehensive Environmental Response, Compensation and Liability Act, also known as Superfund (CERCLA). Sediments and fish in the river contain varying levels of polychlorinated biphenyl (PCB). In the fourth quarter of 1999, Alcoa submitted an Analysis of Alternatives Report to the EPA. This Report identified potential courses of remedial action related to the PCB contamination of the river. The EPA indicated to Alcoa that it believed additional remedial alternatives needed to be included in the Analysis of Alternatives Report. During 2000 and 2001, Alcoa completed certain studies and investigations on the river,

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including pilot tests of sediment capping techniques and other remediation technologies. In February 2002, Alcoa submitted a revised Analysis of Alternatives Report based on these additional evaluations and included additional remedial alternatives required by the EPA. The range of costs associated with the remedial alternatives evaluated in the 2002 report is between \$2 million and \$525 million. Alcoa believes that rational, scientific analysis supports a remedy involving the containment of sediments in place via natural or man-made processes. Based on the current assessment of the EPA decision-making process, the company has now concluded that the selection of the \$2 million alternative, based on natural recovery only, is remote. Because the selection of the \$2 million alternative was considered remote, Alcoa adjusted the reserve for the Grasse River in 2002 to \$30 million. In June 2003, based on river observations during the spring of 2003, the EPA requested that Alcoa gather additional field data to assess the potential for sediment erosion from winter river ice formation and breakup so that it could be factored into the range of remedial alternatives being considered. The results of these additional studies, submitted in a report to the EPA in April of 2004, suggest that this phenomenon has the potential to occur approximately every 10 years and may impact sediments in certain portions of the river under all remedial scenarios. Those evaluations were submitted to EPA along with a proposal to perform additional pilot remedial studies in the river. In May 2004, EPA approved these additional studies, known as Remedial Options Pilot Studies (ROPS). Most of the work for this study should be completed by the fourth quarter of 2005. It is anticipated that a report of findings will be issued to the EPA in 2006. Subsequent to this submittal, a revised Analysis of Alternatives Report will be submitted to EPA at a date to be determined. This information will be used by the EPA to propose a remedy for the entire river.

Alcoa has reserved an additional \$35 million to perform the study described above in 2005. Even while the reserve was adjusted to account for the ROPS activity, once that field work is completed, including capping and potentially substantial sediment removal, the company is not now able to know with certainty when the EPA will reach a final remedial decision nor estimate how such a decision will be valued.

Representatives of various U.S. federal and state agencies and a Native American tribe, acting in their capacities as trustees for natural resources, have asserted that Alcoa and Reynolds Metals Company (Reynolds) may be liable for loss or damage to such resources under federal and state law based on Alcoa's and Reynolds' operations at their Massena, New York and St. Lawrence, New York facilities. While formal proceedings have not been instituted, the company continues to actively investigate these claims.

Since 1990, Alcoa has undertaken investigations and evaluations concerning alleged releases of mercury from its Point Comfort, Texas facility into the adjacent Lavaca Bay pursuant to a Superfund order from the EPA. In March 1994, the EPA listed the "Alcoa (Point Comfort)/Lavaca Bay Site" on the National Priorities List, and Alcoa and Region VI of the EPA entered into an administrative order on consent, EPA docket no. 6-11-94, concerning the site. The administrative order required the company to conduct a remedial investigation and feasibility study under EPA oversight. Following submission by the company of all required information, in December 2001, the EPA issued its Record of Decision selecting the final remedial approach for the site. In addition, the company and certain federal and state natural resource trustees, who previously served Alcoa with notice of their intent to file suit to recover damages for alleged loss or injury of natural resources in Lavaca Bay, have cooperatively identified restoration alternatives and approaches for resource injuries at the site. Negotiations between Alcoa and the EPA and other federal and state agencies responsible for remediation and natural resource damage assessment were completed and two Consent Decrees covering those matters, respectively, were concluded. The Consent Decrees were lodged in federal district court in Texas on December 10, 2004. After a period for public comment, the Consent Decrees are expected to be formally entered by the court early in 2005. The actions required by those Consent Decrees which are consistent with the Record of Decision and the identified resource restoration alternatives, are fully reserved.

In May through October 2002, eleven lawsuits were filed against Reynolds and Alcoa in the District Court of Wharton County, Texas and one in the United States District Court, Southern District of Texas, Victoria Division. The lawsuits seek to recover damages relating to the presence of trichloroethylene in the groundwater near a former Reynolds extrusion facility in El Campo, Texas. Three of the cases were later dismissed, and all except one of the remaining cases have been consolidated into a single case in the District Court of Wharton County, Texas. None of the defendants have been served in the "unconsolidated" case, and

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there has been no activity in that case since filing. Bon L Campo Limited Partnership and its parent, Tredegar Corporation, operators of the plant from 1997-2000, have also been listed among the defendants in some of the lawsuits, and Reynolds has brought its predecessor in interest, Whittaker Corporation, into the litigation. Several of the Petitions indicate that plaintiffs will request certification of class status for other allegedly affected individuals; however, none of the plaintiffs have filed motions for class certification to date. The only significant personal injury claim settled in 2003. Alcoa, on behalf of itself, Reynolds, a Reynolds subsidiary, Bon L Campo LP, and Tredegar, has settled with most of the plaintiffs with property within the known affected area. After a number of dismissals, approximately 655 plaintiffs remain unsettled. Motions for summary judgment are pending against these remaining plaintiffs, but the Court has not ruled on them. No trial date has been set for these remaining claims.

In August 2000, the U.S. Department of Justice (DOJ) notified IPC, Inc. (IPC), a wholly owned subsidiary of Ivex Packaging Corporation (Ivex), and Consolidated Fibers, Inc. (CFI), a wholly owned subsidiary of IPC, that they were potentially responsible parties (PRPs) under CERCLA at the Agriculture Street Landfill Superfund Site, New Orleans, Louisiana. In August 2002, the EPA and DOJ extended an offer to CFI to engage in pre-filing settlement discussions regarding the United States' claim for response costs at the Site. The EPA and DOJ stated that the government had incurred approximately \$40.6 million in response costs at the Site and sought a settlement amount of approximately \$13.8 million to be paid collectively by CFI and other PRPs. Ivex contends that CFI's involvement with the site was minimal. The United States filed a complaint in the United States District Court for the Eastern District of Louisiana on December 6, 2002 for recovery of its response costs. CFI was named as a defendant. On December 10, 2004, the parties agreed to settle the case with CFI paying \$1.75 million. The parties have reached agreement on final consent decree language.

On September 26, 2003, EPA Region VI filed an administrative Complaint, Compliance Order and Notice of Opportunity for Hearing against Howmet Corporation's Wichita Falls, Texas facility for violations of hazardous waste regulations relating to shipments of used potassium hydroxide to a fertilizer manufacturer from 1997 until 2000. The Complaint proposes a penalty of \$265,128. In addition, the EPA ordered Howmet Corporation (Howmet) to cease sending used potassium hydroxide to fertilizer manufacturers or employing used potassium hydroxide in any use constituting disposal and to certify compliance with hazardous waste regulations within 30 days. On October 22, 2003, EPA Region II issued an almost identical Complaint, Compliance Order and Notice of Opportunity for Hearing against Howmet's Dover, New Jersey facility, seeking \$180,021 in penalties. On October 28, 2003 and December 8, 2003, Howmet filed its Answers to EPA Region VI's and EPA Region II's Complaints, respectively. Howmet's Answers denied the substance of EPA's Complaints, requested that no penalties be imposed and requested Hearings on both the hazardous waste allegations and the Compliance Orders. These matters are pending before the EPA.

In September 1998, Hurricane Georges struck the United States Virgin Islands, including the St. Croix Alumina LLC facility on the island of St. Croix. That facility, at the time, was under 60% ownership by Alcoa through various intermediate entities. The wind and rain associated with the hurricane caused material at the location to be blown into neighboring residential areas. Various clean-up and remediation efforts were undertaken by or on behalf of St. Croix Alumina. A Notice of Violation was issued by the Division of Environmental Protection of the Department of Planning and Natural Resources of the Virgin Islands Government, and has been contested by the company. A civil suit was commenced in the Territorial Court of the Virgin Islands by certain residents of St. Croix in February 1999 seeking compensatory and punitive damages and injunctive relief for alleged personal injuries and property damages associated with "bauxite or red dust" from the St. Croix Alumina facility. The suit, which has been removed to the District Court of the Virgin Islands, names St. Croix Alumina LLC, Alcoa Inc. and Glencore Ltd. (a former owner of the facility) as defendants and in August 2000 was accorded class action treatment. The class is defined to include persons in various defined neighborhoods who "suffered damages and/or injuries as a result of exposure during and after Hurricane Georges to red dust and red mud blown during Hurricane Georges." All of the defendants have denied liability, and discovery and other pretrial proceedings have been underway since 1999. In October 2003, the defendants received plaintiffs' expert reports. These reports claim that the material blown during Hurricane Georges consisted of bauxite and red mud, and contained crystalline silica, chromium and other substances. The reports go on to claim, among other things, that the population of the six subject neighborhoods as of the

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2000 census (a total of 3,730 people) has been exposed to toxic substances through the fault of the defendants, and hence will be able to show entitlement to lifetime medical monitoring as well as other compensatory and punitive relief. These opinions are in the process of being contested by the defendants. Alcoa and St. Croix Alumina LLC have turned over the defense of this matter to their insurance carriers. The Court has ordered the parties to attempt to resolve the dispute through mediation.

In 2001 and 2002, two companion lawsuits were filed in the Court of Lafayette County, Arkansas on behalf of nearly 400 current or former residents of the City of Stamps, Arkansas, the City of Stamps and former employees of Red River Aluminum, Inc. (RRA), a dross processor. The 2001 action has been transferred to Miller County, Arkansas. The suits name 12 defendants (including Alumax, Reynolds and Alcoa) that sent dross to RRA for processing. Plaintiffs have filed claims for personal injuries and property damage and have alleged that the defendants violated Arkansas environmental statutes relating to the alleged contamination associated with RRA's operations in Stamps. The 2001 action was settled in May 2004. The cost of the settlement was previously reserved for and was not material to Alcoa. The 2002 action was dismissed, without prejudice, at the requests of plaintiffs in June 2004. In June 2004, the City of Stamps withdrew its claims, without prejudice. It now has one year in which to re-file its claims. Should the City of Stamps re-file, any result of that suit is at this time neither estimable nor probable.

### Other Matters

Along with various asbestos manufacturers, distributors and premises users, Alcoa and/or its subsidiaries are defendants in several hundred active individual lawsuits filed on behalf of persons alleging injury predominantly as a result of occupational exposure to asbestos at various company facilities. In addition to the above cases, an Alcoa subsidiary has been routinely named, along with a large common group of industrial companies, in a standardized complaint utilized by one particular law firm where the company's involvement is not evident. Since 1999 several thousand such complaints have been filed. To date, Alcoa's subsidiary has been dismissed from almost every case that was actually placed in line for trial. Alcoa, its subsidiaries and acquired companies, all have had numerous insurance policies over the years that provide coverage for asbestos based claims. Many of these policies provide layers of coverage for varying periods of time and for varying locations. Alcoa believes that between its reserves and insurance it is adequately covered for its known asbestos exposures. The costs of defense and settlement have not been and are not expected to be material to the financial condition of the company.

In July 1999, Alcoa Aluminio S.A. received notice that an administrative proceeding was commenced by Brazil's Secretary of Economic Law of the Ministry of Justice against Brazilian producers of primary aluminum, including Alcoa Aluminio. The suit alleges collusive action in the pricing of primary aluminum in violation of Brazilian antitrust law. Alcoa Aluminio has presented its defense and is awaiting the decision of the Secretary of Economic Law. If the Secretary of Economic Law determines that the antitrust law was violated, then the action may be further prosecuted by the Administrative Council of Economic Defense (CADE). Brazilian law provides for civil and criminal sanctions for violations of antitrust law, including fines ranging from 1% to 30% of a company's revenue during the last fiscal year. On July 6, 2004, the Office of Economic Law of the Ministry of Justice decided not to pursue the case in light of the lack of evidence of infringement of the antitrust law. This decision will be referred to the CADE for review.

As previously reported, in the first half of 2002, Alcoa discovered that a former Reynolds distribution entity, RASCO, may have sold approximately 750,000 pounds of aluminum plate made by an unrelated company for use in the Northwest maritime industry that may not be suitable for that use. Reynolds and the current owner of the business and the manufacturer of the metal are working jointly to identify the issues and find resolutions. All identified customers have been notified of the issue, inspection protocols have been put into place and the U.S. Coast Guard has been notified and is involved in the resolution process. Three lawsuits were originally filed by ship owners or operators and each has been resolved. The parties have been working cooperatively toward satisfactory resolutions. During 2004, Alcoa reached resolution of a coverage suit with one of its carriers and used a portion of the proceeds to establish a reserve to cover the expected remaining claims. A suit has been filed against the manufacturers and sellers of the material.



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On January 28, 2005, in the context of an informal investigation being conducted by the staff of the Securities and Exchange Commission (SEC) relating to certain trade payables financing, the company received a request for the voluntary provision of documents and related information concerning the classification and disclosure of certain trade accounts payable transactions for periods beginning after December 31, 2002 that involve, directly or indirectly, an intermediary. The SEC staff has advised the company that the inquiry should not be construed as an indication by the SEC or its staff that any violations of law have occurred, or as an adverse reflection upon any person or security. Alcoa is fully cooperating with this inquiry.

### **Item 4. Submission of Matters to a Vote of Security Holders.**

No matters were submitted to a vote of the company's security holders during the fourth quarter of 2004.

### **Item 4A. Executive Officers of the Registrant.**

The names, ages, positions and areas of responsibility of the executive officers of the company as of February 18, 2005 are listed below.

**Alain J. P. Belda**, 61, Director, Chairman of the Board and Chief Executive Officer. Mr. Belda was elected to Alcoa's Board of Directors in September 1998 and became Chairman in January 2001. He has been Chief Executive Officer since May 1999. He was President and Chief Executive Officer from May 1999 to January 2001, and President and Chief Operating Officer from January 1997 to May 1999. He served as Vice Chairman from 1995 to 1997. Mr. Belda and Ricardo E. Belda, Executive Vice President—European Region, are brothers.

**Ricardo E. Belda**, 60, Executive Vice President – European Region. Mr. Belda was named to his current position in October 2004. He was elected Executive Vice President - Alcoa and Group President, Alcoa Europe in November 2001. He was named President – Alcoa Europe in March 2000 and elected a Vice President of Alcoa in May 2000. He was named President of Alcoa Nederland B.V. in 1995 and took on responsibility for Extrusions and End Products for all of Europe in 1997.

**William F. Christopher**, 50, Executive Vice President – Alcoa and Group President, Alcoa Aerospace, Automotive and Commercial Transportation. In January 2003, Mr. Christopher assumed responsibility for Alcoa's global automotive market and since September 2002, has been Group President for Alcoa's Aerospace and Commercial Transportation Group. He also leads the customer and marketing initiatives for growth for the company. In 2001, he assumed responsibility for the global deployment of the Alcoa Business System and the company's customer and quality initiatives. Mr. Christopher was elected a Vice President of Alcoa in 1999 and Executive Vice President in 2001. He was President of Alcoa Forged Products from 1996 to 2001.

**Richard B. Kelson**, 58, Executive Vice President and Chief Financial Officer. He was elected to his current position in May 1997. He was Executive Vice President, Environment, Health and Safety and General Counsel from May 1994 to 1997.

**Mario Longhi Filho**, 50, Vice President – Alcoa and Group President, Global Extruded and End Products. Mr. Longhi was named to his current position in October 2004. He was named President of Alcoa Howmet Castings in 2002. He was elected a Vice President of Alcoa in 2001. In 2000 he was named President of Alcoa Wheel and Forged Products, and in 1998 he was named Vice President and general manager of Alcoa Wheels International.

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**Ruth J. Mack**, 49, Vice President – Alcoa and Group President, Packaging and Consumer Products. Ms. Mack was elected to her current position in November 2004. She joined Alcoa in May 2000 as President of Alcoa Consumer Products following Alcoa’s merger with Reynolds Metals Company. She was vice president and general manager of Reynolds Consumer Products from April 1999 to May 2000.

**Charles D. McLane, Jr.**, 51, Vice President – Corporate Controller. Mr. McLane was named to his current position in July 2003. He was elected Vice President – Alcoa Business Support Services and Controller in October 2002. He joined Alcoa in May 2000 as director of investor relations, following Alcoa’s merger with Reynolds Metals Company. He became Assistant Treasurer of Reynolds in 1999 and Assistant Controller of that company in 1995.

**Joseph C. Muscari**, 58, Executive Vice President – Alcoa and Group President, Rigid Packaging, Foil and Asia. Mr. Muscari was named to his current position in October 2004. He has been an Alcoa Executive Vice President since 2002. He was named Group President of Asia and Latin America in 2001. In 1997, he was named Vice President of Audit and was subsequently named Vice President of Environment, Health & Safety, Audit and Compliance.

**Lawrence R. Purtell**, 57, Executive Vice President and General Counsel; Chief Compliance Officer. Mr. Purtell joined Alcoa as Executive Vice President and General Counsel in November 1997. He became Chief Compliance Officer in April 2002.

**Bernt Reitan**, 56, Executive Vice President – Alcoa and Group President, Global Primary Products. Mr. Reitan was named Group President, Global Primary Products in October 2004 and was elected an Alcoa Executive Vice President in November 2004. He was named Group President, Alcoa Primary Products in January 2004. He was elected Vice President of Primary Metals in 2003. He was named President of Alcoa World Alumina and Chemicals and was elected a Vice President of Alcoa in July 2001. He joined Alcoa in 2000 as general manager of Alcoa World Alumina in Europe. Before joining Alcoa, Mr. Reitan held a series of positions with Elkem in Norway over a 20-year period, serving as Senior Vice President of Materials and Technology and managing director of Elkem Aluminium ANS from 1988 to June 2000.

**Paul D. Thomas**, 48, Executive Vice President- People, ABS and Culture. Mr. Thomas was named to the new position responsible for People, ABS and Culture in October 2004 and was elected an Alcoa Executive Vice President in November 2004. He was named Group President, North American Fabricated Products in January 2003. He was named President of Alcoa Mill Products in 2001 and President of Alcoa’s Engineered Products business in January 1998. He was elected a Vice President of Alcoa in September 1998.

**Helmut Wieser**, 51, Vice President – Alcoa and Group President, Mill Products Europe/North America. Mr. Wieser was named Group President, Mill Products Europe/North America in October 2004 and was elected a Vice President of Alcoa in November 2004. He joined Alcoa in October 2000 as Vice President of Operations in Europe and in 2004 he became President of Alcoa’s flat rolled products business in Europe. Before joining Alcoa, Mr. Wieser worked for Austria Metall Group, where he was an executive member of the board and chief operating officer from 1997 to 2000.

The company’s executive officers are elected or appointed to serve until the next annual meeting of the Board of Directors (held in conjunction with the annual meeting of shareholders) except in the case of earlier death, resignation or removal.

**PART II**

**Item 5. Market for Registrant’s Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities.**

Dividend per share data, high and low prices per share, the principal exchanges on which the company’s common stock is traded, and the estimated number of holders of common stock are set forth on page 68 of the Annual Report and are incorporated by reference.

c) Issuer Purchases of Equity Securities:

Period	Total Number of Shares Purchased (a)	Average Price Paid Per Share	Total Number of Shares Purchased as Part of Publicly Announced Repurchase Plans or Programs (b)	Maximum Number (or Approximate Dollar Value) of Shares that May Yet Be Purchased Under the Plans or Programs (b)
January 1 - January 31, 2004	674,679	\$36.49	—	32,311,636
February 1 - February 29, 2004	998,718	37.82	900,000	31,411,636
March 1 - March 31, 2004	1,013,749	38.08	877,354	30,534,282
Total for quarter ended March 31, 2004	2,687,146	37.58	1,777,354	30,534,282
April 1 – April 30, 2004	2,712	35.23	—	30,534,282
May 1 – May 31, 2004	—	—	—	30,534,282
June 1 – June 30, 2004	23,654	32.11	—	30,534,282
Total for quarter ended June 30, 2004	26,366	32.43	—	30,534,282
July 1 – July 31, 2004	21,598	31.97	—	30,534,282
August 1 – August 31, 2004	11,778	32.14	—	30,534,282
September 1 – September 30, 2004	31,048	32.31	—	30,534,282
Total for quarter ended September 30, 2004	64,424	32.17	—	30,534,282
October 1 – October 31, 2004	34,190	33.56	—	30,534,282
November 1 – November 30, 2004	48,455	33.53	—	30,534,282
December 1 – December 31, 2004	71,794	32.07	—	30,534,282
Total for quarter ended December 31, 2004	154,439	32.86	—	30,534,282

(a) This column includes (i) purchases under Alcoa’s publicly announced share repurchase program described in (b) below and (ii) the deemed surrender to the company by plan participants of shares of common stock to satisfy the exercise price related to the exercise of employee stock options, in each case to the extent applicable during the period indicated. The shares used to satisfy the exercise price related to stock options are not considered part of the publicly announced share repurchase program approved by Alcoa’s Board of Directors as described in (b) below.

(b) Alcoa’s share repurchase program was approved by Alcoa’s Board of Directors and publicly announced on July 13, 2001. The program authorizes the repurchase of up to 50 million shares of Alcoa common stock from time to time, directly or through brokers or agents, and has no expiration date.

**Item 6. Selected Financial Data.**

The comparative table showing selected financial data for the company is on page 21 of the Annual Report and is incorporated by reference.

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### **Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations.**

Management’s review and comments on the consolidated financial statements are on pages 24 through 38 of the Annual Report and are incorporated by reference.

### **Item 7A. Quantitative and Qualitative Disclosures About Market Risk.**

The information regarding quantitative and qualitative disclosures about market risk is on pages 32 through 33 of the Annual Report and is incorporated by reference.

### **Item 8. Financial Statements and Supplementary Data.**

The company’s consolidated financial statements, the notes thereto, selected quarterly financial data and the report of the independent auditors are on pages 40 through 63 of the Annual Report and are incorporated by reference.

### **Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure.**

None.

### **Item 9A. Controls and Procedures.**

#### (a) Evaluation of Disclosure Controls and Procedures

Alcoa’s Chief Executive Officer and Chief Financial Officer have evaluated the company’s disclosure controls and procedures as of the end of the period covered by this report and they have concluded that these controls and procedures are effective.

#### (b) Management’s Annual Report on Internal Control over Financial Reporting

Management’s Report on Internal Control over Financial Reporting is on page 39 of the Annual Report and is incorporated by reference.

#### (c) Attestation Report of the Registered Public Accounting Firm

Management’s assessment of the effectiveness of Alcoa’s internal control over financial reporting as of December 31, 2004 has been audited by PricewaterhouseCoopers LLP, an independent registered public accounting firm, as stated in their report which is on page 40 of the Annual Report and is incorporated by reference.

#### (d) Changes in Internal Control over Financial Reporting

There have been no significant changes in internal control over financial reporting that occurred during the fourth quarter of 2004, that have materially affected, or are reasonably likely to materially affect, the company’s internal control over financial reporting.

### **Item 9B. Other Information.**

None.

## **PART III**

### **Item 10. Directors and Executive Officers of the Registrant.**

The information required by Item 401 of Regulation S-K regarding directors is contained under the captions “Committees”, “Additional Governance and Nominating Committee Disclosure” and “Item 1 – Election of Directors” and in note (6) to the Summary Compensation Table of the Proxy Statement and is incorporated by reference.

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The information required by Item 401 of Regulation S-K regarding executive officers and family relationships is set forth in Part I, Item 4A of this report under “Executive Officers of the Registrant.”

The information required by Item 405 of Regulation S-K is contained under the caption “Alcoa Stock Ownership and Performance – Section 16(a) Beneficial Ownership Reporting Compliance” of the Proxy Statement and is incorporated by reference.

The information required by Item 406 of Regulation S-K is contained under the captions “Corporate Governance Information” and “Other Corporate Governance Matters – Business Conduct Policies and Code of Ethics” of the Proxy Statement and is incorporated by reference.

### **Item 11. Executive Compensation.**

The information required by Item 402 of Regulation S-K is contained under the captions “Directors’ Compensation”, “Alcoa Stock Ownership and Performance – Stock Performance Graph”, “Executive Compensation” and “Other Arrangements with Executives” of the Proxy Statement. Such information (other than the Stock Performance Graph and Report of the Compensation and Benefits Committee, which shall not be deemed to be “filed”) is incorporated by reference.

### **Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters.**

The following table gives information about Alcoa’s common stock that could be issued under the company’s equity compensation plans as of December 31, 2004.

<u>Plan Category</u>	<u>Number of securities to be issued upon exercise of outstanding options, warrants and rights (a)</u>	<u>Weighted -average exercise price of outstanding options, warrants and rights (b)</u>	<u>Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a)) (c)</u>
Equity compensation plans approved by security holders <sup>1</sup>	91,110,498 <sup>1</sup>	\$ 33.34	45,532,330 <sup>2</sup>
Equity compensation plans not approved by security holders <sup>3, 4</sup>	0	0	0
<b>Total</b>	<b>91,110,498<sup>1</sup></b>	<b>\$ 33.34</b>	<b>45,532,330<sup>2</sup></b>

<sup>1</sup> Includes the 2004 Alcoa Stock Incentive Plan (approved by shareholders in April 2004) (2004 ASIP), Alcoa Stock Incentive Plan (approved by shareholders in 1999) and the former Alcoa Long Term Stock Incentive Plan (last approved by shareholders in 1992 and amendments thereto approved by shareholders in 1995). Table amounts are comprised of the following:

- 89,591,315 stock options
- 1,040,583 stock awards
- 478,600 performance share awards (granted at target)

<sup>2</sup> The 2004 ASIP authorizes, in addition to stock options, other types of stock-based awards in the form of stock appreciation rights, contingent stock, performance shares and performance units and stock or other awards. The shares that remain available for issuance under the 2004 ASIP may be issued in connection with any one of these awards. Included in the 2004 ASIP approved plan were additional share reserves of 30 million stock options and stock appreciation rights and 10 million for other awards. In addition, the 2004 ASIP provides the following are available to grant under the 2004 ASIP: (i) shares subject to awards under the 2004 ASIP or prior plan that are forfeited, settled for cash, expire or otherwise terminate without issuance of shares and (ii) shares tendered in payment of the purchase price of an option award under the 2004 ASIP or prior plan or tendered or withheld to pay required withholding taxes. Table amounts are comprised of the following:

- 35,082,013 stock options and stock appreciation rights
- 10,450,317 other awards

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<sup>3</sup> In connection with its acquisitions of Alumax, Cordant, Howmet and Reynolds, Alcoa assumed stock options outstanding under these companies' stock option plans. An aggregate of 8,478,354 shares of Alcoa common stock are to be issued upon exercise of the outstanding options. The options have a weighted average exercise price of \$26.54. No grants of stock options under these plans have been made since the year of Alcoa's acquisition of the particular company, nor will any such grants be made in the future.

<sup>4</sup> The Alcoa Fee Continuation Plan for Non-Employee Directors, adopted in 1990, provided fee continuation payments for persons who met a minimum service requirement as a non-employee director. Each of the ten eligible participants receives (or will receive) such cash and stock payments for life upon retirement from the Board, or age 65 (whichever is later), based upon the cash retainer fee for directors and an annual stock grant under the company's former Stock Plan for Non-Employee Directors. In 1995, the Board froze future annual payments to eligible directors at a maximum of \$30,000 and 2,000 shares (or a lesser proportion based on service). The Plan was otherwise terminated at that time. Alcoa's practice has been to use treasury shares for such share payments. All current fees and other compensation for directors are outlined under "Directors' Compensation" on page 11 of the Proxy Statement.

The information required by Item 403 of Regulation S-K is contained under the captions "Alcoa Stock Ownership and Performance – Stock Ownership of Certain Beneficial Owners" and " - Stock Ownership of Directors and Executive Officers" of the Proxy Statement and is incorporated by reference.

### **Item 13. Certain Relationships and Related Transactions.**

The information required by Item 404 of Regulation S-K is contained under the caption "Transactions with Directors' Companies" of the Proxy Statement and is incorporated by reference.

### **Item 14. Principal Accountant Fees and Services.**

The information required by Item 9(e) of Schedule 14A is contained under the captions "Independent Auditor: Services and Fees" and "Policy on Audit Committee Pre-Approval of Audit and Permissible Non-Audit Services of the Independent Auditor" of the Proxy Statement and in Attachment A (Pre-Approval Policies and Procedures Adopted by the Audit Committee in April 2004 for Audit and Non-Audit Services) thereto and is incorporated by reference.

## **PART IV**

### **Item 15. Exhibits and Financial Statement Schedules.**

(a) The consolidated financial statements, financial statement schedule and exhibits listed below are filed as part of this report.

(1) The company's consolidated financial statements, the notes thereto and the report of the Registered Public Accounting Firm are on pages 40 through 62 of the Annual Report and are incorporated by reference.

(2) The following report and schedule should be read with the company's consolidated financial statements in the Annual Report:

Report of PricewaterhouseCoopers LLP dated February 18, 2005 on the company's financial statement schedule filed as a part hereof for the fiscal years ended December 31, 2004, 2003 and 2002.

Schedule II – Valuation and Qualifying Accounts For the Years Ended December 31, 2004, 2003 and 2002.

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### (3) Exhibits

<u>Exhibit Number</u>	<u>Description*</u>
3(a).	Articles of the Registrant as amended, incorporated by reference to exhibit 3(a) to the company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2000.
3(b).	By-Laws of the Registrant as amended, incorporated by reference to exhibit 4(b) to the company's Post-Effective Amendment No. 2 to Registration Statement No. 333-32516 and Registration Statement No. 333-106411 on Form S-8, filed October 14, 2003.
4(a).	Articles. See Exhibit 3(a) above.
4(b).	By-Laws. See Exhibit 3(b) above.
4(c).	Form of Indenture, dated as of September 30, 1993, between Alcoa and J. P. Morgan Trust Company, N.A. (formerly Chase Manhattan Trust Company, N.A.), as successor Trustee (undated form of Indenture incorporated by reference to exhibit 4(a) to Registration Statement No. 33-49997 on Form S-3).
10(a).	Alcoa's Summary of the Key Terms of the AWAC Agreements, incorporated by reference to exhibit 99.2 to the company's Current Report on Form 8-K, dated November 28, 2001.
10(b).	Charter of the Strategic Council executed December 21, 1994, incorporated by reference to exhibit 99.3 to the company's Current Report on Form 8-K, dated November 28, 2001.
10(c).	Amended and Restated Limited Liability Company Agreement of Alcoa Alumina & Chemicals, L.L.C. dated as of December 31, 1994, incorporated by reference to exhibit 99.4 to the company's Current Report on Form 8-K, dated November 28, 2001.
10(d).	Shareholders Agreement dated May 10, 1996 between Alcoa International Holdings Company and WMC Limited, incorporated by reference to exhibit 99.5 to the company's Current Report on Form 8-K, dated November 28, 2001.
10(e).	Side Letter of May 16, 1995 clarifying transfer restrictions, incorporated by reference to exhibit 99.6 to the company's Current Report on Form 8-K, dated November 28, 2001.
10(f).	364-Day Revolving Credit Agreement, dated as of April 23, 2004, incorporated by reference to exhibit 10(a) to the company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2004.
10(g).	Five Year Revolving Credit Agreement, dated as of April 23, 2004, incorporated by reference to exhibit 10(b) to the company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2004.

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- 10(h). Revolving Credit Agreement (Five-Year), dated as of April 25, 2003, incorporated by reference to exhibit 10(b) to the company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2003.
- 10(i). Alcoa Stock Acquisition Plan, effective January 1, 1999, incorporated by reference to exhibit 10(a) to the company's Annual Report on Form 10-K (Commission file number 1-3610) for the year ended December 31, 1999.
- 10(i)(1). Amendments to Alcoa Stock Acquisition Plan, effective September 1, 2000, incorporated by reference to exhibit 10(a)(1) to the company's Annual Report on Form 10-K for the year ended December 31, 2000.
- 10(j). Employees' Excess Benefit Plan, Plan A, incorporated by reference to exhibit 10(b) to the company's Annual Report on Form 10-K (Commission file number 1-3610) for the year ended December 31, 1980.
- 10(j)(1). Amendments to Employees' Excess Benefit Plan, Plan A, effective January 1, 2000, incorporated by reference to exhibit 10(b)(1) to the company's Annual Report on Form 10-K for the year ended December 31, 2000.
- 10(j)(2). Amendments to Employees' Excess Benefit Plan, Plan A, effective January 1, 2002, incorporated by reference to exhibit 10(j)(2) to the company's Annual Report on Form 10-K for the year ended December 31, 2002.
- 10(k). Incentive Compensation Plan, as amended effective January 1, 1993, incorporated by reference to exhibit 10(c) to the company's Annual Report on Form 10-K (Commission file number 1-3610) for the year ended December 31, 1992.
- 10(l). Employees' Excess Benefit Plan, Plan C, as amended and restated in 1994, effective January 1, 1989, incorporated by reference to exhibit 10(d) to the company's Annual Report on Form 10-K (Commission file number 1-3610) for the year ended December 31, 1994.
- 10(l)(1). Amendments to Employees' Excess Benefit Plan, Plan C, effective January 1, 2000, incorporated by reference to exhibit 10(d)(1) to the company's Annual Report on Form 10-K for the year ended December 31, 2000.
- 10(l)(2). Amendments to Employees' Excess Benefit Plan, Plan C, effective January 1, 2002, incorporated by reference to exhibit 10(l)(2) to the company's Annual Report on Form 10-K for the year ended December 31, 2002.
- 10(m). Employees' Excess Benefit Plan, Plan D, as amended effective October 30, 1992, incorporated by reference to exhibit 10(e) to the company's Annual Report on Form 10-K (Commission file number 1-3610) for the year ended December 31, 1992 and exhibit 10(e)(1) to the company's Annual Report on Form 10-K (Commission file number 1-3610) for the year ended December 31, 1994.
- 10(n). Deferred Fee Plan for Directors, as amended effective July 9, 1999, incorporated by reference to exhibit 10(g)(1) to the company's Quarterly Report on Form 10-Q (Commission file number 1-3610) for the quarter ended June 30, 1999.



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- 10(o). Restricted Stock Plan for Non-Employee Directors, as amended effective March 10, 1995, incorporated by reference to exhibit 10(h) to the company's Annual Report on Form 10-K (Commission file number 1-3610) for the year ended December 31, 1994.
- 10(o)(1). Amendment to Restricted Stock Plan for Non-Employee Directors, effective November 10, 1995, incorporated by reference to exhibit 10(h)(1) to the company's Annual Report on Form 10-K (Commission file number 1-3610) for the year ended December 31, 1995.
- 10(p). Fee Continuation Plan for Non-Employee Directors, incorporated by reference to exhibit 10(k) to the company's Annual Report on Form 10-K (Commission file number 1-3610) for the year ended December 31, 1989.
- 10(p)(1). Amendment to Fee Continuation Plan for Non-Employee Directors, effective November 10, 1995, incorporated by reference to exhibit 10(i)(1) to the company's Annual Report on Form 10-K (Commission file number 1-3610) for the year ended December 31, 1995.
- 10(q). Deferred Compensation Plan, as amended effective October 30, 1992, incorporated by reference to exhibit 10(k) to the company's Annual Report on Form 10-K (Commission file number 1-3610) for the year ended December 31, 1992.
- 10(q)(1). Amendments to Deferred Compensation Plan, effective January 1, 1993, February 1, 1994 and January 1, 1995, incorporated by reference to exhibit 10(j)(1) to the company's Annual Report on Form 10-K (Commission file number 1-3610) for the year ended December 31, 1994.
- 10(q)(2). Amendment to Deferred Compensation Plan, effective June 1, 1995, incorporated by reference to exhibit 10(j)(2) to the company's Annual Report on Form 10-K (Commission file number 1-3610) for the year ended December 31, 1995.
- 10(q)(3). Amendment to Deferred Compensation Plan, effective November 1, 1998, incorporated by reference to exhibit 10(j)(3) to the company's Annual Report on Form 10-K (Commission file number 1-3610) for the year ended December 31, 1999.
- 10(q)(4). Amendments to Deferred Compensation Plan, effective January 1, 1999, incorporated by reference to exhibit 10(j)(4) to the company's Annual Report on Form 10-K (Commission file number 1-3610) for the year ended December 31, 1999.
- 10(q)(5). Amendments to Deferred Compensation Plan, effective January 1, 2000, incorporated by reference to exhibit 10(j)(5) to the company's Annual Report on Form 10-K for the year ended December 31, 2000.
- 10(r). Summary of the Executive Split Dollar Life Insurance Plan, dated November 1990, incorporated by reference to exhibit 10(m) to the company's Annual Report on Form 10-K (Commission file number 1-3610) for the year ended December 31, 1990.

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- 10(s). Amended and Restated Dividend Equivalent Compensation Plan, effective January 1, 1997, incorporated by reference to exhibit 10(h) to the company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2004.
- 10(t). Form of Indemnity Agreement between the company and individual directors or officers, incorporated by reference to exhibit 10(j) to the company's Annual Report on Form 10-K (Commission file number 1-3610) for the year ended December 31, 1987.
- 10(u). 2004 Alcoa Stock Incentive Plan, incorporated by reference to exhibit 10(c) to the company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2004.
- 10(v). Alcoa Supplemental Pension Plan for Senior Executives, effective January 1, 1999, incorporated by reference to exhibit 10(q) to the company's Annual Report on Form 10-K (Commission file number 1-3610) for the year ended December 31, 1998.
- 10(v)(1). Amendments to Alcoa Supplemental Pension Plan for Senior Executives, effective January 1, 2000, incorporated by reference to exhibit 10(q)(1) to the company's Annual Report on Form 10-K for the year ended December 31, 2000.
- 10(w). Deferred Fee Estate Enhancement Plan for Directors, effective July 10, 1998, incorporated by reference to exhibit 10(r) to the company's Annual Report on Form 10-K (Commission file number 1-3610) for the year ended December 31, 1998.
- 10(x). Alcoa Deferred Compensation Estate Enhancement Plan, effective July 10, 1998, incorporated by reference to exhibit 10(s) to the company's Annual Report on Form 10-K (Commission file number 1-3610) for the year ended December 31, 1998.
- 10(x)(1). Amendments to Alcoa Deferred Compensation Estate Enhancement Plan, effective January 1, 2000, incorporated by reference to exhibit 10(s)(1) to the company's Annual Report on Form 10-K (Commission file number 1-3610) for the year ended December 31, 1999.
- 10(x)(2). Amendments to Alcoa Deferred Compensation Estate Enhancement Plan, effective January 1, 2000, incorporated by reference to exhibit 10(s)(2) to the company's Annual Report on Form 10-K for the year ended December 31, 2000.
- 10(y). 2001 PLUS Performance Plan, effective 2001, incorporated by reference to exhibit 10(y) to the company's Annual Report on Form 10-K for the year ended December 31, 2001.
- 10(z). Alcoa Inc. Change in Control Severance Plan, incorporated by reference to exhibit 10(z) to the company's Annual Report on Form 10-K for the year ended December 31, 2001.
- 10(aa). Form of Agreement for Stock Option Awards, incorporated by reference to exhibit 10(a) to the company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2004.
- 10(bb). Form of Agreement for Stock Awards, incorporated by reference to exhibit 10(b) to the company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2004.
- 10(cc). Form of Agreement for Performance Share Awards, incorporated by reference to exhibit 10(c) to the company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2004.
- 10(dd). Stock Option Award Rules Revised January 1, 2004, incorporated by reference to exhibit 10(d) to the company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2004.

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- 10(ee). Stock Awards Rules Effective January 1, 2004, incorporated by reference to exhibit 10(e) to the company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2004.
- 10(ff). Performance Share Awards Rules Effective January 1, 2004, incorporated by reference to exhibit 10(f) to the company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2004.
- 10(gg). 2004 Summary Description of the Alcoa Incentive Compensation Plan, incorporated by reference to exhibit 10(g) to the company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2004.
- 10(hh). Amended and Restated Dividend Equivalent Compensation Plan, incorporated by reference to exhibit 10(h) to the company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2004.
- 10(ii). 2005 Deferred Fee Plan for Directors, incorporated by reference to exhibit 10.1 to the company's Current Report on Form 8-K, dated January 10, 2005.
- 10(jj). Global Pension Plan Effective January 1, 1998.
- 10(jj)(1). Amendments to Global Pension Plan.
- 10(kk). Form of Executive Severance Agreement between Alcoa Inc. and Eligible Key Executives, incorporated by reference to exhibit 10(a) to the company's Current Report on Form 8-K, dated December 23, 2004.
- 10(ll). Agreement between Alcoa Inc. and William E. Leahey, Jr., incorporated by reference to exhibit 10(aa) to the company's Current Report on Form 8-K, dated November 29, 2004.
- 10(mm). Agreements signed by Alcoa Inc. on April 12, 2004 with G.J. Pizzey, incorporated by reference to exhibit 10 to the company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2004.
- 10(nn). Summary of Non-Employee Director Compensation effective January 1, 2005.
- 10(oo). Executive Financial Planning Program.
- 10(pp). Income Tax Preparation Program.

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12.	Computation of Ratio of Earnings to Fixed Charges.
13.	Portions of Alcoa's 2004 Annual Report to Shareholders.
21.	Subsidiaries and Equity Entities of the Registrant.
23.	Consent of Independent Accountants.
24.	Power of Attorney for certain directors.
31.	Certifications pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.	Certification pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.

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\* Exhibit Nos. 10(i) through 10(pp) are management contracts or compensatory plans required to be filed as Exhibits to this Form 10-K.

Amendments and modifications to other Exhibits previously filed have been omitted when in the opinion of the Registrant such Exhibits as amended or modified are no longer material or, in certain instances, are no longer required to be filed as Exhibits.

No other instruments defining the rights of holders of long-term debt of the Registrant or its subsidiaries have been filed as Exhibits because no such instruments met the threshold materiality requirements under Regulation S-K. The Registrant agrees, however, to furnish a copy of any such instruments to the Commission upon request.

**REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM ON  
FINANCIAL STATEMENT SCHEDULE**

To the Board of Directors  
of Alcoa Inc.:

Our audits of the consolidated financial statements, of management's assessment of the effectiveness of internal control over financial reporting and of the effectiveness of internal control over financial reporting referred to in our report dated February 18, 2005 appearing in the 2004 Annual Report to Shareholders of Alcoa (which report, consolidated financial statements and assessment are incorporated by reference in this Annual Report on Form 10-K) also included an audit of the financial statement schedule listed in Item 15(a)(2) of this Form 10-K. In our opinion, this financial statement schedule presents fairly, in all material respects, the information set forth therein when read in conjunction with the related consolidated financial statements.

/s/ PricewaterhouseCoopers LLP

Pittsburgh, Pennsylvania  
February 18, 2005

**SCHEDULE II – VALUATION AND QUALIFYING ACCOUNTS  
FOR THE YEARS ENDED DECEMBER 31  
(in millions)**

Col. A	Col. B	Col. C		Col. D	Col. E
Description	Balance at beginning of period	Additions		Deductions	Balance at end of period
		Charged to costs and expenses	Charged to other accounts		
<b>Allowance for doubtful accounts:</b>					
2004	\$ 102	\$ 13	\$ 0	\$ 28(B)	\$ 87
2003	\$ 119	\$ 10	\$ (2)(A)	\$ 25(B)	\$ 102
2002	\$ 124	\$ 23	\$ (15)(A)	\$ 13(B)	\$ 119
<b>Income tax valuation allowance:</b>					
2004	\$ 147	\$ 0	\$ (1)(A)	\$ 26(C)	\$ 120
2003	\$ 171	\$ 1	\$ 15(A)	\$ 40(C)	\$ 147
2002	\$ 195	\$ 16	\$ (35)(A)	\$ 5(C)	\$ 171

Notes: (A) Collections on accounts previously written off, acquisition/divestiture of subsidiaries and foreign currency translation adjustments.  
(B) Uncollectible accounts written off.  
(C) Related primarily to utilization of tax loss carryforwards.

The financial information of all prior periods has been reclassified to reflect discontinued operations and assets held for sale.



## GLOBAL PENSION PLAN

EFFECTIVE JANUARY 1, 1998

Aluminum Company of America, a Pennsylvania corporation, (“Alcoa”) establishes the Global Pension Plan (the “Plan”) a defined contribution pension plan, for the exclusive benefit of eligible select management and highly compensated employees of Alcoa and its majority owned subsidiaries and affiliates (the “Company”). The Plan will be “maintained outside of the United States primarily for the benefit of persons substantially all of whom are non-resident aliens,” within the meaning of the Employee Retirement Income Security Act of 1974. The purpose of the Plan is to provide retirement benefits of eligible employees who are unable to participate in a home country pension plan, or who, due to frequent transfer among different countries, will otherwise be significantly disadvantaged financially.

ARTICLE I - PARTICIPATION

1.1 Eligibility. An Eligible Employee means any employee who on or after the effective date of the Plan:

- (A) is actively at work for the Company,
- (B) is a non-resident alien of the United States of America, or otherwise ineligible to participate in a pension plan in the country in which they reside or work,
- (C) is authorized by the Manager International Compensation and Benefits Services of Alcoa (the “Manager”) to participate in the Plan, and
- (D) is not eligible to actively participate in any other pension or savings plan of the Company.

1.2 Participation. An Eligible Employee will commence participation in this Plan on the first day they become an eligible employee, or such other date as determined by the Manager, and will remain a participant until he or she is no longer an Eligible Employee.

1.3 Continuous Service. “Continuous Service” means, except as modified by the balance of this definition, the period of continuous employment with the Company, either as a salaried employee or as an hourly-rated employee, subject to such rules as may be adopted from time to time by the Manager. Continuous Service terminates upon any quit, dismissal, discharge or any other termination of employment with the Company; any determination by the Manager that employment with these entities has terminated is conclusive final and binding. Absences from such employment due to inactive status, sick leave, leave of absence or layoff will not constitute a termination of Continuous Service, except to the extent determined by the Manager, but such time lost will not count as Continuous Service except to the extent determined by the Manager under uniform rules applicable to all employees similarly situated.

1.4 Vesting. The benefits provided under this Plan will be forfeitable until the Participant has 2 years of Continuous Service; at which time the Participant will become 100% vested in their benefit.



ARTICLE II - CONTRIBUTIONS

2.1 The Company will provide each Participant's account with contribution credits ("Benefit Credits") equal to 8% of the Participant's annual Salary. The Benefit Credits will be posted as of December 31 for the then current plan year.

2.2 "Salary" means the regular base salary or hourly wages payable during such periods as the employee is a Participant. Salary includes bonuses paid in the calendar year. Where commission payments constitute all or part of an employee's monthly remuneration, the commissions actually paid as remuneration during a regular pay period will be used to determine the salary for such employee. Salary does not include non-recurring items such as: overtime, extended workweek premium, cost of living allowance where separately designated, shift or other premiums, or other payments, fees or allowances made for specific purposes as determined by the Company. Salary will be based on the amount of annual salary in local currency converted into US Dollars, based on the annual average exchange rate as determined by Alcoa's Corporate Finance Department.

ARTICLE III - EARNINGS

3.1 Earnings Credits equal the average annual LIBOR, and will be applied to the balance of the Participant's account on December 31 of each Plan year, but prior to date when the current plan year's Benefit Credit is posted. The average will be determined by adding the LIBOR, as published in the Financial Times, as of the last day of each month and dividing that sum by 12.

ARTICLE IV - DISTRIBUTIONS

4.1 The amount of Benefit Credits and Earnings Credits in a Participant's account will be distributed to the Participant by the end of February of the year following the year in which the Participant's Continuous Service terminates.

4.2 All distributions will be paid to the Participant or the Beneficiary in a lump sum, and will be paid in U.S. Dollars.

4.3 The Beneficiary under this Plan is the Participant's spouse. In the event that there is no spouse or the spouse is deceased at the time of the Participant's death, amounts will be distributed as soon as administratively practical in a lump sum to the Participant's estate. The spouse will be determined under the laws of the country of residence on the date of death, by the Manager.

ARTICLE V - ADMINISTRATION AND EXPENSES OF THE PLAN

5.1 The general administration of this Plan is by the Manager. The Manager's resolution of any matter concerning this Plan is final and binding upon the Company and any Participant and/or Beneficiary affected thereby. The Manager has the discretionary authority to interpret the provisions of the Plan and take any and all actions in determining the eligibility, participation and coverage of any individual claiming benefits under this plan.

5.2 All costs and expenses incurred in administering the Plan, including the expenses of the Manager, the fees and expenses of a trustee or custodian, the fees and charges payable under the investment arrangements, and other legal and administrative expenses, will be paid by the Plan.

ARTICLE VI - GENERAL PROVISIONS

6.1 This Plan will not be construed as conferring any rights upon any Participant for continuation of employment with the Company, nor will it interfere with the rights of the Company to terminate the employment of any Participant and/or to take any personnel action affecting any Participant without regard to the effect which such action may have upon such Participant as a recipient of benefits under this Plan.

6.2 No benefit under this Plan may be assigned, transferred, pledged or encumbered or be subject in any manner to alienation or anticipation.

6.3 Benefits payable hereunder are payable out of the general assets of the Company, and no segregation of assets for such benefits will be made. The right of a Participant or any Beneficiary to receive benefits under this Plan is an unsecured claim against the assets and is no greater than the rights of an unsecured general creditor of the Company. Notwithstanding the foregoing, in the event the Company establishes a trust, to which it may, but will not be required to contribute money or other property in contemplation of paying benefits under this Plan, such money or other property will remain subject to the claims of creditors of the Company. The Company will establish a book reserve to account for the benefits provided under this Plan.

6.4 This Plan may be amended, suspended or terminated at any time by Alcoa; provided, however, that no such amendment, suspension or termination will reduce or in any manner adversely affect any Participant's or Beneficiary's rights with respect to benefits that are payable or may become payable under this Plan based upon the Participant's Benefit Credits as of the date of such amendment, suspension or termination.

6.5 The Participant or beneficiary is liable for any taxes which are applicable to the amounts payable under this Plan. In addition, if any taxing authority should determine that amounts payable under this Plan are taxable at any point prior to payment, the Participant remains solely liable for such taxes.

6.6 This Plan will be construed, regulated and administered under the laws of the Commonwealth of Pennsylvania, United States of America, except for laws relating to choice or conflict of laws, and except to the extent preempted by federal law. All claims or disputes must be brought within the jurisdiction of the federal courts of the United States of America sitting in the Pennsylvania.

On behalf of Aluminum Company of America, I hereby adopt the Global Pension Plan, as set forth herein, effective January 1, 1998

Date: 6 / 1 / 98

/s/ ROBERT F. SLAGLE

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Robert F. Slagle  
Executive Vice President

**AMENDMENTS TO THE  
GLOBAL PENSION PLAN**

Pursuant to Section 6.4 of the Global Pension Plan (“Plan”), which provides that the Plan may be amended in whole or in part at any time by Alcoa, the Plan is revised as follows:

1. Article III, Section 3.1, is amended to add the following to follow the first paragraph:

In the event that the average is determined to be less than 5.5%, 5.5% shall be used as the Earnings Credit rate for earnings credits applicable applied on or after January 1, 2002.

**In all other respects the Plan is ratified and confirmed.**

GPP Resolutions-Amendments

**AMENDMENTS TO THE  
GLOBAL PENSION PLAN**

**1. Article 2 - Contributions is deleted in its entirety and replaced with the following:**

2.1 The Company will provide each Participant's account with contribution credits ("Benefit Credits") equal to 8% of the Participant's annual Base Salary and Bonus. The Benefit Credits will be posted as of December 31 for the then current plan year.

2.2 "Base Salary" means the regular base salary or hourly wages payable during such periods as the employee is a Participant. "Bonus" means the variable or incentive compensation payable during such periods as the employee is a Participant. Where commission payments constitute all or part of an employee's monthly remuneration, the commissions actually paid as remuneration during a regular pay period will be used to determine the Base Salary for such employee. Base Salary does not include non-recurring items such as: overtime, extended workweek premium, cost of living allowance where separately designated, shift or other premiums, or other payments, fees or allowances made for specific purposes as determined by the Company. Base Salary will be based on the amount of annual salary in local currency converted into US Dollars, based on the annual average exchange rate as determined by Alcoa's Corporate Finance Department.

**2. In all other respects the Plan is hereby ratified and confirmed.**

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**AMENDMENTS TO THE  
ALCOA GLOBAL PENSION PLAN**

**Pursuant to Section 6.4 of the Plan, the Plan is amended as follows:**

- 1. Section 1.1(A)(3) is amended by replacing “Manager, International Compensation and Benefits Services of Alcoa,” wherever it appears with “Director Corporate Human Resources - Benefits.”**
- 2. In all other respects the Plan is hereby ratified and confirmed.**

**AMENDMENTS TO THE  
ALCOA GLOBAL PENSION PLAN**

**Pursuant to Section 6.4 of the Plan which provides that the Plan may be amended or modified, the Plan is amended effective as of January 1, 2000, as follows: -**

**1. Section 1.1 is deleted in its entirety and replaced with the following:**

**1.1 Eligibility.** An Eligible Employee means any employee who on or after the effective date of the Plan:

- (A) (1) is actively at work for the Company,
- (2) is a non-resident alien of the United States of America, or otherwise ineligible to participate in a pension plan in the country in which they reside or work,
- (3) is authorized by the Manager International Compensation and Benefits Services of Alcoa (the "Manager") to participate in the Plan, and
- (4) is not eligible to actively participate in any other pension or savings plan of the Company; or
- (B) is not actively participating in any other pension plan of the Company and is authorized by an officer of the Company to participate in the Plan.

**2. In all other respects the Plan is ratified and confirmed.**

## Summary of Non-Employee Director Compensation effective January 1, 2005

The following summary of the compensation payable to each non-employee member of the Board of Directors of Alcoa Inc. effective January 1, 2005 is an excerpt from Alcoa's 2005 Notice of Annual Meeting and Proxy Statement:

In November 2004, the board reviewed director fees, in light of current competitive trends and increased demands since the passage of the Sarbanes-Oxley Act. The board increased the annual retainer to \$175,000 beginning January 1, 2005. In addition, the Audit Committee Chair will receive \$25,000 annually for services in that capacity, and other Audit Committee members will receive an additional \$10,000. The Chair of each of the Compensation and Benefits, Governance and Nominating, and Public Issues Committees will receive an additional \$15,000, and the Lead Director will receive an additional \$10,000 annually. The board adopted a director share ownership guideline of 10,000 shares, and each director is required to defer \$100,000 of fees annually into the Alcoa share equivalent fund under the company's 2005 Deferred Fee Plan for Directors, or otherwise use that amount of annual fees for the purchase of Alcoa stock, until the guideline is satisfied; that investment must be retained until service ends. The company does not pay any meeting or other fees for board service, and directors do not receive stock options. Alcoa does not fund directors' deferred accounts, but pays them out in cash from general funds of the company after board service ends.

A black and white photograph of chess pieces, including a king and a queen, on a chessboard. The pieces are in sharp focus in the foreground, with others blurred in the background.

Executive Financial Planning Program



## Introduction

Alcoa's executive total compensation program offers you outstanding opportunities to maximize your holdings of Alcoa stock, save for your future, secure financial protection for your family, minimize taxes, and accumulate wealth. However, as a member of Alcoa's senior leadership team, your busy schedule can make it difficult to devote the kind of attention to personal financial planning that's necessary to make the most of your various executive compensation and benefit opportunities.

Recognizing the demands on your time, Alcoa provides the Executive Financial Planning Program designed to:

- make it easy for you to develop and implement a sound financial plan for your future;
- help you make full use of the highly valuable total compensation opportunities available to you; and
- minimize the amount of time you need to spend on personal financial planning matters that can distract you from your executive duties at Alcoa.

This booklet will answer most questions you may have about this important piece of your executive total compensation package. Keep in mind that, while the program has been designed to make it as easy as possible for you to use the financial planning services provided, the process will require some time and effort on your part. We encourage you to take advantage of the program's services to ensure that you have an effective financial plan in place for your—and your family's—future.

## How the Program Works

### Who Is Eligible

Participation in the program is limited to Alcoa executives worldwide in job grades 27 and above.

You're covered under the program on your first day as an eligible executive. Coverage ends as shown below:

- If you leave the company, your eligibility ends on your last day of work.
- If you retire on January 1, you are eligible to use the program for the prior year only. If you retire on February 1 or later, you are eligible to use the program for the current and prior years.
- If you should die while you are an active employee, your surviving spouse is eligible to use the program in the year of your death.

### Services Provided

The program offers you two kinds of financial planning assistance:

- *Development of a comprehensive long-term financial analysis* to meet your personal objectives and needs, including an extensive analysis of your current situation and assistance with coordinating the specific action steps necessary to implement your plan.
- *Ongoing reviews of your financial plan, including updates due to changes in Alcoa's employee benefit plans*, to make sure your financial strategies are appropriate as your needs and circumstances change.

During your first year of participation, the program will provide an in-depth analysis of your current financial situation and help you develop and implement a comprehensive program for achieving your financial goals. Areas that may be covered in this process include:

- *Estate planning*, including estate tax implications, trust considerations, and gifting strategies.
- *Retirement planning* using “what if” analyses to develop long-term wealth-optimization and tax strategies tailored to your individual situation and specific retirement goals.
- *Stock option planning and analyses* to help guide you in determining when to exercise your options, when to sell shares, and the tax implications of your decisions.
- *Tax planning*—from research and strategy development to the preparation of your tax returns, including help with cross-border tax issues.
- *Cash flow/debt management*, including advice on budgeting and the appropriate use of debt.
- *Insurance planning*, including an analysis of your insurance needs and review of your current policies and coverage.
- *Investment planning* and asset allocation to assist you in achieving the returns you seek while reducing your portfolio’s risk, tax exposure, and costs.
- *Education funding*, including tax, investment, and ownership strategies, to address the additional cost of private schools, colleges, and other educational expenses.

Effective financial planning will help you realize even greater value from your Alcoa executive total compensation opportunities.

The goal is to help you create a fully integrated strategy to address your total financial needs—and a well-defined action plan to ensure effective implementation of your strategy. You also get help with coordinating the specific actions needed to execute your plan, such as securing insurance and drafting wills, trusts or other legal documents. For example, your financial planner might help you explore insurance alternatives or work with your lawyers or other professional advisors to educate them about your strategies and review their work. Your planner can also help with paperwork like completing brokerage account forms, loan applications, and Alcoa benefit plan forms.

The program continues to work for you throughout your Alcoa career, providing a periodic review of your situation and ongoing maintenance of your financial plan as needed.

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## How Services Are Provided

Based on a rigorous selection process, Alcoa selected Deloitte & Touche to administer the Executive Financial Planning Program. Deloitte & Touche has extensive experience in this area and provides executive financial planning services to many other major companies.

Among the most important selection factors was the breadth of Deloitte & Touche's global financial planning network and expertise. This expertise offers superior value to our internationally mobile executives, who face especially complex tax, estate planning, and other issues.

Other advantages include Deloitte & Touche's expertise in stock option planning, which can help you make the most of the wealth-building opportunities available under the Alcoa Stock Incentive Plan. In addition, you only need one advisor at Deloitte & Touche, making it easier for you to stay on top of all of your financial affairs. Your Deloitte & Touche advisor is responsible for your financial planning and coordinating any other resources or services you may need from Deloitte & Touche.

It's important to note that you are not required to use Deloitte & Touche in order to participate in the program. You may use any financial advisor of your choice and Alcoa will reimburse your cost, up to the program maximums, as specified under "Cost of the Program" on page 4. If you already have a comprehensive financial plan in place, you can use Alcoa's program to have Deloitte & Touche review your current plan or to cover the cost of ongoing updates. The program gives you maximum flexibility to use the financial planning professionals with whom you are most comfortable.

If you do not have a personal financial advisor, you're strongly encouraged to use Deloitte & Touche. As Alcoa's preferred vendor for executive financial planning services, Deloitte & Touche offers you added convenience as well as potential cost savings. For example, Deloitte & Touche is fully familiar with Alcoa's compensation and benefit programs, and arrangements are in place to keep them up-to-date as changes occur. Similarly, Alcoa provides Deloitte & Touche with information on your individual Alcoa compensation and benefits (unless you request that such information not be provided, as explained on page 5). This means you won't need to gather copies of statements, beneficiary forms, and plan summaries prior to meeting with your advisor. Alcoa does not have the resources to offer this level of coordination with financial planning vendors other than Deloitte & Touche.

The goal is to help you create a fully integrated strategy to address your total financial needs—and a well-defined action plan to ensure effective implementation of your strategy.

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**Cost of the Program**

In general, Alcoa pays the full cost of the financial planning services you receive under the program. Note, however, that while Deloitte & Touche's services include help in coordinating the necessary steps to implement your financial plan (e.g., securing insurance, drafting legal documents, completing forms), the program does not cover legal fees or the cost of other professional services that may be required. Your Deloitte & Touche advisor will discuss with you in advance and obtain your written approval before providing services that are beyond the scope of Alcoa's program.

Also note that, depending on the tax laws in your country of residence, you may have imputed taxable income equal to the value of the services you receive under the program. In general, you will be responsible for paying the tax owed on this "income." This will be the case for U.S. taxpayers, among others. After you receive services under the program, Deloitte & Touche will notify Alcoa of the cost and this amount will be reported to you as income.

If you use a personal financial advisor other than Deloitte & Touche, Alcoa will reimburse your cost up to US \$15,000 for the development of your initial financial plan and up to US \$5,000 annually thereafter for ongoing services. The amount of reimbursement you receive under the program will be treated as taxable income if you're a U.S. taxpayer.

Depending on your country of residence, you may have imputed taxable income equal to the value of the financial planning services you receive under the program.

**Using a Financial Advisor Other Than Deloitte & Touche**

If you use a financial advisor other than Deloitte & Touche, you simply pay for the services you receive and send a copy of the bill to the Alcoa Compensation Department, Alcoa Corporate Center, Pittsburgh, PA, 15212. You will be reimbursed up to the program limit. Applicable income and FICA taxes on the amount of reimbursement will be deducted from your payment. You are responsible for any fees in excess of the program limit.

**How To Participate**

Soon after you become eligible, you will be contacted by an experienced Deloitte & Touche financial advisor based near you to discuss your needs and schedule an initial meeting. There is no charge for this initial meeting if you choose not to use Deloitte & Touche.

If you are living outside of your home country, you may elect to have a Deloitte & Touche advisor in your home country or host country serve as your primary contact for program services. Either way, the advisor you choose will coordinate with Deloitte & Touche staff in other relevant countries and with the firm's international tax experts in New York City, as needed, to give you seamless services and advice on cross-border planning issues.

## **Program Confidentiality**

If you participate in the program, all personal financial information will be held in the strictest confidence by Deloitte & Touche. Alcoa will not have access to this information.

To save you time in gathering some of the information that your advisor will need, Alcoa will educate Deloitte & Touche about our executive compensation and benefit programs on an ongoing basis. As part of this process, Alcoa will provide Deloitte & Touche with information on your individual Alcoa compensation and benefits—unless you request otherwise.

**Important:** If you are newly eligible for this program and do not want Alcoa to release your personal information to Deloitte & Touche, please contact TBG Consulting at 1-800-984-9726 (in the U.S.), 1-412-553-3122 (outside the U.S.), or 225-3122 on the Alcoa ActNet. If you do not contact TBG within your first month of eligibility for the program, Alcoa will assume you have no objection to giving your personal compensation and benefit information to Deloitte & Touche.

## **For More Information**

If you have questions about the program, contact TBG Consulting at 1-800-984-9726 (in the U.S.), 1-412-553-3122 (outside the U.S.), or 225-3122 on the Alcoa ActNet. If you have questions about Deloitte & Touche and its services, contact Joyce Schnur at 412-338-7790 or [jschnur@deloitte.com](mailto:jschnur@deloitte.com).

## **What Happens When: A Reference Guide**

### **You first become eligible to receive program services**

**You will be contacted by an experienced Deloitte & Touche financial advisor based near you to discuss your needs and schedule an initial meeting.**

### **You want to use a financial advisor other than Deloitte & Touche**

**You may do so. Simply submit your bills for services covered under the program to Alcoa's Compensation Department for reimbursement.**

### **Your employment with Alcoa ends (due to voluntary termination, retirement or death)**

**Coverage ends as shown below:**

- **If you leave the company, your eligibility ends on your last day of work.**
- **If you retire on January 1, you are eligible to use the program for the prior year only. If you retire on February 1 or later, you are eligible to use the program for the current and prior years.**
- **If you should die while you are an active employee, your surviving spouse is eligible to use the program in the year of your death.**

This pamphlet describes the Alcoa Executive Financial Planning Program as of July 2003. While Alcoa has contracted with Deloitte & Touche to provide advisory services to our senior leadership, Alcoa assumes no responsibility for the advice provided nor for the ultimate consequences of that advice. Alcoa reserves the right to change or terminate the program at any time for any reason. Participation in the program is voluntary and does not give anyone the right to continued employment with Alcoa.



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679.25  
574.26  
639.98  
757.74  
614.76  
925.55  
549.68  
254.44  
47

Income Tax Preparation Program

648  
10

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## **Introduction**

Effective planning and management of your personal taxes play an important role in your ability to make the most of the attractive wealth-building opportunities offered in Alcoa's executive total compensation package. By providing professional income tax preparation services, the Income Tax Preparation Program helps you maximize the tax efficiency of your personal financial decisions while also reducing the demands of preparing your annual tax returns.

Offering you the tax expertise and resources of Deloitte & Touche—with the flexibility to use other tax professionals if you choose—the program:

- provides ongoing tax preparation services to make it easy for you to determine your annual tax liability and file your tax returns;
- offers you expert, confidential advice on personal tax issues ranging from estate tax considerations to the taxes on your Alcoa stock options, retirement plan distributions, and personal investments; and
- invites you to quarterly "Corporate Executive Connection" Webcasts regarding various financial planning topics.

Thus, the program can help you develop long-range tax strategies that enhance the value of your Alcoa compensation and benefits and support your personal financial needs and goals.

## **How the Program Works**

### **Who Is Eligible**

The program is available to U.S. executives in job grades 24 and above at Alcoa or one of its subsidiaries.

You're covered under the program on your first day as an eligible executive. Coverage ends as shown below:

- If you leave the company, your eligibility ends on your last day of work.
- If you retire on January 1, you are eligible to use the program for the prior tax year only. If you retire on February 1 or later, you are eligible to use the program for the current and prior tax years.
- If you should die while you are an active employee, your surviving spouse is eligible to use the program in the year of your death.

The program can help you develop long-range tax strategies that enhance the value of your Alcoa executive total compensation and support your personal financial needs and goals.



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**Services Provided**

The program is designed to relieve you of much of the burden of preparing your annual income tax returns. It offers you professional assistance with preparing your federal, state, and (if applicable) local income tax returns each year, as well as other forms (e.g., estate and gift tax) you may be required to file.

In addition, the program enables you to tap ongoing professional advice about the tax implications of personal financial decisions and transactions, such as relocation, your Alcoa retirement plan distributions, and stock option exercise strategies. Indeed, you can use the program to get expert advice on a wide range of personal tax matters—from taxes on your investments to how you structure the ownership of financial assets within your family.

Alcoa has arranged for Deloitte & Touche to provide tax preparation services to eligible executives. Executives who elect not to use the services of Deloitte & Touche may use any qualified local tax preparer.

Using Deloitte & Touche for program services can save you time in educating your return preparer about your compensation and benefit programs because Deloitte & Touche is thoroughly familiar with Alcoa's programs.

In addition, Deloitte & Touche monitors your tax situation at various points during the year to make sure you do not have too little (or too much) withheld for taxes. This valuable service can help you minimize your withholding while also avoiding federal tax penalties that can be assessed when too little tax is withheld. Deloitte & Touche also gives you ongoing information and ideas about personal tax planning issues via periodic newsletters and other resources.

**Cost of the Program**

Alcoa pays the cost of covered services under the program, up to the Deloitte & Touche standard fee for executive tax preparation assistance (currently \$1,200 plus up to \$500 per year for responding to inquiries from tax authorities or audits). Note that you will have imputed taxable income equal to the value of any services you receive from Deloitte & Touche under the program.

If you request advice that will require extensive tax research or other additional services, Deloitte & Touche will inform you that your request is likely to result in fees beyond those paid under Alcoa's program. Any services that exceed the program limit will be your responsibility.

**Using a Tax Professional Other than Deloitte & Touche**

If you use a tax professional other than Deloitte & Touche, you simply pay for the services you receive and send a copy of the bill to the Alcoa Compensation Department, Alcoa Corporate Center, Pittsburgh, PA, 15212. You will be reimbursed up to the program limit. Applicable income and FICA taxes on the amount of reimbursement will be deducted from your payment. You are responsible for any fees in excess of the program limit.

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## **How to Participate**

A representative of Deloitte & Touche will contact you when you first become eligible for the program. As a preliminary step, you will be asked to provide your tax returns for the preceding two years so that Deloitte & Touche can gain an understanding of your personal tax situation and tax planning needs.

Early each calendar year, Deloitte & Touche will send you an information request to help you gather and organize the information your tax preparer will need to complete your returns. Your tax preparer will work with you (and other family members, as appropriate) in preparing your returns.

Late each year, you will receive a notice from Alcoa asking if you want to continue participating in the program. You may use the program as long as you remain actively employed by Alcoa (see "Who Is Eligible" on page 1).

## **Confidentiality of Personal Tax Information**

If you participate in the program, all personal financial information you provide to Deloitte & Touche or any other tax professional will be held in the strictest confidence. Alcoa will have no access to this information.

Keep in mind that participation in the program is completely voluntary and that any tax counseling you receive is a form of private advice between the tax professional and you. Alcoa is in no way responsible for the ultimate consequences of that advice.

The program enables you to tap ongoing professional advice about the tax implications of your personal financial decisions and transactions, such as your Alcoa retirement plan distributions and stock option exercise strategies.

## **For More Information**

If you have questions about the program or services provided, contact TBG Consulting at 1-800-984-9726 (in the U.S.), 1-412-553-3122 (outside the U.S.), or 225-3122 on the Alcoa ActNet. If you have questions about Deloitte & Touche and its services, contact Joyce Schnur at 412-338-7790 or to [jschnur@deloitte.com](mailto:jschnur@deloitte.com)

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## What Happens When: A Reference Guide

**You first become eligible to receive program services**

**You will be contacted by a representative of Deloitte & Touche to discuss your needs and personal tax situation.**

**You want to use a tax professional other than Deloitte & Touche**

**You may do so. Simply submit your bills for services covered under the program to the Alcoa Compensation Department for reimbursement.**

**Your employment with Alcoa ends (due to voluntary termination, retirement or death)**

**Coverage ends as shown below:**

- **If you leave the company, your eligibility ends on your last day of work.**
- **If you retire on January 1, you are eligible to use the program for the prior tax year only. If you retire on February 1 or later, you are eligible to use the program for the current and prior tax years.**
- **If you should die while you are an active employee, your surviving spouse is eligible to use the program in the year of your death.**

This pamphlet describes the Alcoa Income Tax Preparation Program as of July 2003. While Alcoa has contracted with Deloitte & Touche to provide tax preparation and advisory services to our senior leadership, Alcoa assumes no responsibility for the advice provided nor for the ultimate consequences of that advice. Alcoa reserves the right to change or terminate the program at any time for any reason. Participation in the program is voluntary and does not give anyone the right to continued employment with Alcoa.



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**COMPUTATION OF RATIO OF EARNINGS TO FIXED CHARGES  
FOR THE YEAR ENDED DECEMBER 31  
(in millions, except ratios)**

	2004	2003	2002	2001	2000
<b>Earnings:</b>					
Income from continuing operations before taxes on income and before accounting change	\$2,204	\$1,710	\$1,007	\$1,623	\$2,697
Minority interests' share of earnings of majority-owned subsidiaries without fixed charges	—	—	—	—	1
Less equity earnings	(145)	(138)	(72)	(118)	(115)
Fixed charges added to earnings	314	347	380	420	469
Distributed income of less than 50% owned persons	59	35	21	23	9
<b>Amortization of capitalized interest:</b>					
Consolidated	25	21	14	13	15
Proportionate share of 50% owned persons	—	—	—	—	—
<b>Total earnings</b>	<b>\$2,457</b>	<b>\$1,975</b>	<b>\$1,350</b>	<b>\$1,961</b>	<b>\$3,076</b>
<b>Fixed Charges:</b>					
<b>Interest expense:</b>					
Consolidated	\$ 271	\$ 314	\$ 350	\$ 371	\$ 427
Proportionate share of 50% owned persons	3	4	4	6	6
	274	318	354	377	433
<b>Amount representative of the interest factor in rents:</b>					
Consolidated	38	28	25	41	34
Proportionate share of 50% owned persons	2	1	1	2	2
	40	29	26	43	36
Fixed charges added to earnings	314	347	380	420	469
<b>Interest capitalized:</b>					
Consolidated	27	21	22	22	20
Proportionate share of 50% owned persons	—	—	—	—	—
	27	21	22	22	20
<b>Total fixed charges</b>	<b>\$ 341</b>	<b>\$ 368</b>	<b>\$ 402</b>	<b>\$ 442</b>	<b>\$ 489</b>
Ratio of earnings to fixed charges	7.2	5.4	3.4	4.4	6.3

The financial information of all prior periods has been reclassified to reflect discontinued operations.

## Financial and Corporate Data

## Selected Financial Data

(in millions, except per-share amounts and ingot prices)

For the year ended December 31	2004	2003	2002	2001	2000
Sales	\$23,478	\$21,092	\$19,934	\$21,933	\$22,010
Income from continuing operations	1,402	1,055	518	904	1,451
(Loss) income from discontinued operations	(92)	(70)	(132)	4	38
Cumulative effect of accounting change	—	(47)	34	—	(5)
Net income	1,310	938	420	908	1,484
Earnings (loss) per share:					
Basic:					
Income from continuing operations	1.61	1.23	.61	1.05	1.78
(Loss) income from discontinued operations	(.11)	(.08)	(.16)	.01	.04
Cumulative effect of accounting change	—	(.06)	.04	—	(.01)
Net income	1.50	1.09	.49	1.06	1.81
Diluted:					
Income from continuing operations	1.60	1.22	.61	1.04	1.76
(Loss) income from discontinued operations	(.11)	(.08)	(.16)	.01	.04
Cumulative effect of accounting change	—	(.06)	.04	—	(.01)
Net income	1.49	1.08	.49	1.05	1.79
Alcoa's average realized price per pound for aluminum ingot	.85	.70	.66	.72	.77
LME average 3-month price per pound for aluminum ingot	.78	.65	.62	.66	.71
Cash dividends paid per common share	.600	.600	.600	.600	.500
Total assets	32,609	31,711	29,810	28,355	31,691
Short-term borrowings	267	50	34	163	2,718
Commercial paper	630	—	665	220	1,510
Long-term debt	5,403	7,216	7,784	6,264	3,897

The financial information for all prior periods has been reclassified to reflect assets held for sale and discontinued operations. See Note B to the Consolidated Financial Statements for further information.

In addition to the operational results presented in Management's Discussion and Analysis of Financial Condition and Results of Operations, other significant items that impacted results included, but were not limited to, the following:

- 2004: Disposition of businesses, restructuring and other charges, changes in the provision for income taxes, the restructuring of debt and associated settlement of interest rate swaps, the effects of the Bécancour strike, the sale of a portion of Alcoa's interest in the Juruti bauxite project, environmental charges, the termination of an alumina tolling arrangement, and discontinued operations
- 2003: Acquisitions and dispositions of businesses, restructuring and other charges, insurance settlements related to environmental matters, changes in the provision for income taxes, discontinued operations, and the adoption of a new accounting standard
- 2002: Restructuring and other charges, the adoption of new accounting standards, goodwill impairment, and discontinued operations
- 2001: Restructuring and other charges, dispositions of businesses, and various charges to cost of goods sold and selling, general administrative and other expenses
- 2000: Acquisitions of Reynolds Metals Company (Reynolds) and Cordant Technologies (Cordant)

The data presented in the Selected Financial Data table should be read in conjunction with the information provided in Management's Discussion and Analysis of Financial Condition and Results of Operations and the Notes to the Consolidated Financial Statements.

## Management's Discussion and Analysis of Financial Condition and Results of Operations

(dollars in millions, except per-share amounts and ingot prices; shipments in thousands of metric tons [mt])

### Overview

#### Our Business

Alcoa is the world's leading producer of primary aluminum, fabricated aluminum, and alumina, and is active in all major aspects of the industry: technology, mining, refining, smelting, fabricating, and recycling. Aluminum is a commodity that is traded on the London Metal Exchange (LME) and priced daily based on market supply and demand. Aluminum and alumina represent approximately two-thirds of Alcoa's revenues, and the price of aluminum influences the operating results of Alcoa. Nonaluminum products include precision castings, industrial fasteners, vinyl siding, consumer products, food service and flexible packaging products, plastic closures, and electrical distribution systems for cars and trucks. Alcoa's products are used worldwide in aircraft, automobiles, commercial transportation, packaging, consumer products, building and construction, and industrial applications.

Alcoa is a global company operating in 43 countries. North America is the largest market with 64% of Alcoa's revenues. Europe is also a significant market with 22% of the company's revenues. Alcoa also has investments and activities in Australia, Brazil, China, Iceland, Jamaica, Russia, and Trinidad, which present opportunities for substantial growth. Governmental policies and other economic factors, including inflation and fluctuations in foreign currency exchange rates and interest rates, affect the results of operations in these countries.

#### Management Review of 2004 and Outlook for the Future

Alcoa aspires to be the best company in the world. As part of that mission, Alcoa strives to attain certain financial goals to improve both short-term and long-term profitability, while positioning the company to be successful in the future.

In 2004, Alcoa's focus on long-term value creation through living our values, controlling costs and capital, managing our portfolio of businesses, and focusing on profitable growth contributed to the following financial achievements:

- Significant improvement in income from continuing operations, rising 33% from \$1,055 in 2003 to \$1,402 in 2004, as four of the company's six segments increased in profitability;
- Highest annual sales in company history, with revenue growth of \$2,386 over 2003;
- Strong cash flow generation of approximately \$2,200 in cash from operations;
- Strengthened balance sheet and continued cash generation through disciplined capital spending and payment of approximately \$2,000 in debt over the past two years, which facilitated a reduction in the debt-to-capital ratio from 35.1% in 2003 to 30.0% in 2004; and
- The substantial completion of our divestiture plan with the sales of the specialty chemicals business, the automotive fasteners business, the packaging equipment business, the South American flexible packaging business, the Russellville, AR and St. Louis, MO foil facilities, and extrusion facilities in Europe and Brazil.

During 2004, the company was faced with a number of challenges including increased costs for energy, raw materials, and a weakening U.S. dollar. Additionally in 2004, significant efforts continued in globalizing the production base as a means to better serve Alcoa's customers and to take advantage of lower costs to produce in certain global regions. The actions surrounding the globalization provide unique challenges including exposure to foreign currency movement against the U.S. dollar, as well as the general business and political risks involved with expanding operations in global regions where Alcoa does not currently have a significant presence. The company expects that it will continue to face these and similar challenges in the future.

To position ourselves for success in 2005 and beyond, we will work toward the following financial goals:

- Continuing to reduce costs in conjunction with the three-year cost savings challenge initiated in 2004, aimed at eliminating \$1,200 in costs by the end of 2006. Cost savings are targeted to help offset anticipated higher energy and input costs for materials such as resin and caustic. The cost savings will be achieved through continued implementation of the Alcoa Business System (ABS), procurement savings, and headcount reductions;
- Striving to join the first quintile of S&P Industrials in return on capital (ROC) performance and, in pursuit of that goal, we will seek to provide returns in excess of cost of capital, which is currently 9%;
- Maintaining a strong balance sheet with a long-term target for a 25%–35% debt-to-capital ratio; and
- Strengthening our asset base and improving its productivity, as well as expanding our global reach and positioning our primary businesses lower on the cost curve through various strategies including: expanding alumina refinery capacity in Australia, Jamaica, and Suriname; constructing a smelter in Iceland and expanding smelting capacity in Brazil, China, and Trinidad; expanding fabricating capabilities in Russia; investing in energy projects in Brazil, as well as various other projects throughout other segments of the business. Capital expenditures for these major growth projects and other sustaining projects are projected to be approximately \$2,500 in 2005. These projects are outlined in more detail below under Segment Information, Liquidity and Capital Resources, and Contractual Obligations and Off-Balance Sheet Arrangements.

#### Forward-Looking Statements

Certain statements in this report under this caption and elsewhere relate to future events and expectations and, as such, constitute forward-looking statements. Forward-looking statements also include those containing such words as "anticipates," "believes," "estimates," "expects," "hopes," "targets," "should," "will," "will likely result," "forecast," "outlook," "projects,"

or similar expressions. Such forward-looking statements involve known and unknown risks, uncertainties, and other factors that may cause actual results, performance, or achievements of Alcoa to be different from those expressed or implied in the forward-looking statements. For a discussion of some of the specific factors that may cause such a difference, see Notes N and Y to the Consolidated Financial Statements and the disclosures included below under Segment Information and Market Risks. For additional information on forward-looking statements and risk factors, see Alcoa's Form 10-K, Part I, Item 1.

## Results of Operations

### Earnings Summary

Alcoa's income from continuing operations for 2004 was \$1,402, or \$1.60 per diluted share, compared with \$1,055, or \$1.22 per share, in 2003. The highlights for 2004 include: higher realized prices for alumina due to a tightening of the world alumina market, as well as higher realized prices for aluminum as LME prices increased by 20% over 2003 levels; increased sales across five of six segments; higher volumes in downstream businesses serving the commercial transportation, building and construction, aerospace, and packaging markets; improved profitability across four of six segments; a \$38 gain related to the retirement of debt and associated interest rate swap settlement; a \$37 gain on the sale of a portion of Alcoa's interest in the Juruti bauxite project to Alcoa World Alumina and Chemicals (AWAC); a \$15 gain on the termination of an alumina tolling arrangement; and continued focus on completion of divestitures, which included a \$61 gain on the sale of the specialty chemicals business.

Partially offsetting these positive contributions in 2004 were: significant cost increases for energy and raw materials; the impact of a weakened U.S. dollar against other currencies, primarily the Australian and Canadian dollars and the Euro; the impact of a strike at the Bécancour smelter; a \$41 increase in environmental and legal reserves, principally related to the Grasse River site and El Campo; and the absence of \$79 in insurance settlements that occurred in 2003.

Net income for 2004 was \$1,310, or \$1.49 per diluted share, compared with \$938, or \$1.08 per share, in 2003. Net income of \$1,310 in 2004 included a loss of \$92 in discontinued operations, comprised of \$89 in impairment charges to reflect the estimated fair values of the protective packaging business, the telecommunications business, and a small casting business; net operating losses of \$8; slightly offset by a net gain of \$5 on divested businesses. See details of the divestiture plan below.

Alcoa's income from continuing operations for 2003 was \$1,055, or \$1.22 per diluted share, compared with \$518, or \$.61 per share, in 2002. The increase in income from continuing operations was primarily due to higher realized prices for alumina and aluminum; improved profitability across all segments; significant restructuring charges that were recognized in 2002; higher equity income; recognition of insurance settlements of a series of environmental matters in the U.S.; and a lower effective tax rate. Partially offsetting these increases were higher energy, employee benefits and raw materials costs, as well as the unfavorable impact of the U.S. dollar against foreign currencies. The company also experienced volume declines in businesses serving the commercial building and construction and industrial gas turbine markets.

Net income for 2003 was \$938, or \$1.08 per diluted share, compared with \$420, or \$.49 per share, in 2002. Net income of \$938 in 2003 included a charge of \$47 representing the cumulative effect of the accounting change for asset retirement obligations upon adoption of Statement of Financial Accounting Standards (SFAS) No. 143, "Accounting for Asset Retirement Obligations." Net income in 2003 also included a loss of \$70 from discontinued operations, comprised of a \$45 impairment charge for the automotive fasteners business, as well as \$25 of net operating losses from businesses to be divested.

**Divestiture Plan** — Alcoa's financial statements for all periods presented were significantly impacted by activities relating to the planned divestiture of a number of Alcoa's businesses.

In 2002, Alcoa performed a portfolio review of its businesses and the markets they serve. As a result of this review, Alcoa committed to a plan to divest certain noncore businesses that did not meet internal growth and return measures. This plan was substantially completed in 2004 with the divestitures of the following businesses: specialty chemicals, automotive fasteners, packaging equipment, South American flexible packaging, foil facilities in Russellville, AR and St. Louis, MO, and extrusion facilities in Europe and Brazil.

In the second quarter of 2004, certain architectural products businesses in North America were reclassified from assets held for sale to assets held and used as management discontinued the plan of sale due to market conditions. The financial statements for prior periods have been reclassified to reflect this change. The reclassification did not impact the Statement of Consolidated Income, and the results of operations of these architectural products businesses continue to be presented in the Engineered Products segment.

Also in 2004, Alcoa identified additional businesses to be divested to better focus on its core capabilities. As a result, the following businesses have been reclassified from assets held and used to discontinued operations for all periods presented. See Notes A and B to the Consolidated Financial Statements for additional information on reclassifications for discontinued operations.

- In the third quarter of 2004, the protective packaging business was reclassified to discontinued operations. A \$16 after-tax impairment charge was recorded to reflect the current estimated fair value of the business. The results of the Packaging



and Consumer segment have been reclassified to reflect the movement of this business into discontinued operations.

- In the fourth quarter of 2004, the telecommunications business and a small casting business in the U.K. were reclassified to discontinued operations. Impairment charges of \$63 (after tax and minority interests) for the telecommunications business and \$10 (after tax and minority interests) for the casting business were recorded to reflect the current estimated fair values of these businesses. The results of the Other group have been reclassified to reflect the movement of these businesses into discontinued operations.

The loss of \$92 in discontinued operations in 2004 was comprised of impairment losses of \$89 to reflect the current estimated fair values on businesses to be divested as described above, \$8 of net operating losses of these businesses, and a net gain of \$5 on businesses sold in 2004. The loss of \$70 in discontinued operations in 2003 was comprised of an impairment loss of \$45 related to the reduction in the estimated fair value of the automotive fasteners business and \$25 of operating losses. The loss of \$132 in discontinued operations in 2002 was comprised of an impairment loss of \$59 to reduce the carrying values of certain businesses to be divested to their estimated fair values less costs to sell, \$53 of operating losses, and \$20 for the impairment of goodwill in the telecommunications business.

**Sales** — Sales for 2004 were \$23,478 compared with sales of \$21,092 in 2003, an increase of \$2,386, or 11%. The 21% increase in the realized price of aluminum and 23% increase in the realized price of alumina contributed significantly to the increase in sales over the prior year, as two-thirds of the increase in sales was due to higher realized prices for alumina and aluminum. Volume increased in downstream businesses serving the commercial transportation, building and construction, aerospace, and packaging markets. In addition, the acquisition of the remaining 50% of KAAL Australia in October 2003 provided \$370 in additional revenue in 2004. Partly offsetting these increases were sales decreases due to divestitures of Alcoa's specialty chemicals business, the Russellville, AR and St. Louis, MO foil facilities, the European and Brazilian extrusion facilities that were sold in 2004, as well as the Latin American PET business that was sold in 2003.

Sales in 2003 were \$21,092 compared with sales of \$19,934 in 2002, an increase of \$1,158, or 6%. Acquisitions accounted for \$913 of the increase in sales in 2003. Sales in 2003 included the full-year results of Ivex Packaging Corporation (Ivex), acquired in July 2002, and Fairchild Fasteners (Fairchild), acquired in December 2002, and three months of activity for KAAL Australia, acquired in October 2003. In addition to the acquisition activity, sales increased in 2003 primarily in the upstream businesses, as realized prices for alumina rose 17% and realized prices for aluminum rose 6% from 2002. Partly offsetting the increases in the upstream businesses were the dispositions of distribution facilities in Europe and the Latin America PET business, as well as lower volumes in the downstream businesses, which were impacted by weak markets for industrial gas turbines and commercial building and construction.

**Cost of Goods Sold** — COGS as a percentage of sales was 79.3% in 2004 compared with 79.4% in 2003. Increased realized prices for alumina and aluminum, higher volumes, and cost savings were mostly offset by higher costs associated with energy and raw materials, the Bécancour strike, an increase of \$42 in environmental reserves, and unfavorable foreign currency exchange movements.

COGS as a percentage of sales was 79.4% in 2003, compared with 79.9% in 2002. Cost reductions as a result of procurement savings, productivity improvements, and headcount reductions from prior restructuring programs, as well as higher realized prices for alumina and aluminum, more than offset lower volumes, higher costs for energy, purchased raw materials and employee benefits, a weakened U.S. dollar against other currencies, and a benefit realized in 2002 as a result of a favorable last-in, first-out (LIFO) adjustment.

**Selling, General Administrative, and Other Expenses** — SG&A expenses were \$1,284, or 5.5% of sales, in 2004 compared with \$1,250, or 5.9% of sales, in 2003. Expenses increased by \$34 due to unfavorable foreign currency exchange movements, increased bad debt expense, and stock awards granted in 2004, somewhat offset by lower deferred compensation costs.

SG&A expenses were \$1,250, or 5.9% of sales, in 2003 compared with \$1,108, or 5.6% of sales, in 2002. The increase of \$142, or 0.3% as a percentage of sales, was primarily due to the full-year results related to the acquisitions of Ivex and Fairchild, which accounted for 60% of the change in 2003 compared with 2002. The remaining increase was primarily due to increased deferred compensation costs in 2003.

**Research and Development Expenses** — R&D expenses were \$182 in 2004 compared with \$190 in 2003 and \$209 in 2002. The decreases in 2004 and 2003 were principally driven by Alcoa's continued focus to reduce spending and control costs.

**Provision for Depreciation, Depletion, and Amortization** — The provision for depreciation, depletion, and amortization was \$1,204 in 2004 compared with \$1,175 in 2003. The increase of \$29, or 3%, was primarily caused by unfavorable foreign currency exchange movements.

The provision for depreciation, depletion, and amortization was \$1,175 in 2003 compared with \$1,096 in 2002. The increase of \$79, or 7%, was primarily due to the full-year results related to the acquisitions of Ivex and Fairchild, as well as the negative impact of foreign currency exchange movements, somewhat offset by a reduction due to ceasing depreciation on assets held for sale.

**Restructuring and Other Charges** — Restructuring and other charges for each of the three years in the period ended December 31, 2004, were comprised of:

December 31	2004	2003	2002
Asset write-downs	\$ 6	\$—	\$292
Layoff costs	41	44	104
Other costs	—	—	25
Sale of specialty chemicals business	(53)	—	—
Net additions to/(reversals) of prior year layoff and other costs*	(15)	(38)	(7)
Net additions to/(reversals) of prior year gains/losses on assets held for sale	—	(33)	—
<b>Restructuring and other charges</b>	<b>\$ (21)</b>	<b>\$ (27)</b>	<b>\$414</b>

\* Reversals of prior year layoff and other costs resulted from changes in facts and circumstances that led to changes in estimated costs.

Restructuring and other charges consisted of income of \$21 (\$41 after tax and minority interests) in 2004. The income recognized in 2004 was comprised of the following: a gain of \$53 (\$61 after tax and minority interests) on the sale of Alcoa's specialty chemicals business and \$15 from adjustments to prior year reserves; offset by charges of \$41 related to additional layoff reserves recorded in 2004 associated with approximately 4,100 hourly and salaried employees located primarily in Mexico and the U.S., as the company continued to focus on reducing costs, and \$6 of asset write-downs.

As of December 31, 2004, approximately 3,700 of the 4,100 employees associated with the 2004 restructuring charges had been terminated and approximately \$22 of cash payments were made against the reserves.

Restructuring and other charges consisted of income of \$27 (\$25 after tax and minority interests) in 2003. The income recognized in 2003 was comprised of: \$33 of net favorable adjustments on assets held for sale; \$38 of income resulting from adjustments to prior year layoff reserves; and \$44 of charges for additional layoff costs associated with approximately 1,600 hourly and salaried employees located primarily in Europe, the U.S., and Brazil, as the company continued to focus on cost reductions in businesses that continued to be impacted by market declines. The 2003 restructuring program is essentially complete.

During 2002, Alcoa recorded special charges of \$414 (\$272 after tax and minority interests) for restructurings associated with the curtailment of aluminum production at three smelters, as well as restructuring operations for those businesses experiencing negligible growth due to continued market declines and the decision to divest certain businesses that failed to meet internal growth and return measures. The 2002 charges were comprised of asset write-downs of \$292, consisting of \$113 of goodwill on businesses to be divested, as well as \$179 for structures, machinery, and equipment; employee termination and severance costs of \$104 related to approximately 6,700 salaried and hourly employees at over 70 locations, primarily in Mexico, Europe, and the U.S.; and exit costs, including environmental, demolition, and lease termination costs, of \$25. Additionally, net reversals of \$7 were recorded in 2002, primarily associated with adjustments to 2001 restructuring program reserves due to changes in estimates of liabilities resulting from lower than expected costs. The 2002 restructuring program is essentially complete.

Alcoa does not include restructuring and other charges in the segment results. The pre-tax impact of allocating restructuring and other charges to the segment results would have been as follows:

December 31	2004	2003	2002
Alumina and Chemicals	\$(48)	\$ (1)	\$ 3
Primary Metals	(1)	4	64
Flat-Rolled Products	1	13	65
Engineered Products	9	(4)	217
Packaging and Consumer	10	(44)	46
Other	6	(2)	17
<b>Segment total</b>	<b>(23)</b>	<b>(34)</b>	<b>412</b>
Corporate expenses	2	7	2
<b>Total Restructuring and other charges</b>	<b>\$(21)</b>	<b>\$ (27)</b>	<b>\$414</b>

**Interest Expense** — Interest expense was \$270 in 2004 compared with \$314 in 2003, resulting in a decrease of \$44, or 14%. This decrease was principally caused by lower average debt levels.

Interest expense was \$314 in 2003 compared with \$350 in 2002. The decrease of \$36, or 10%, was primarily due to lower average effective interest rates, somewhat offset by higher average debt levels due to higher borrowings in 2002 to fund acquisitions.

**Other Income** — Other income of \$268 in 2004 was relatively flat with \$274 in 2003. In 2004, a \$58 gain recognized on the restructuring of debt, \$54 change in favorable foreign currency exchange movements, and a \$35 gain on the termination of an alumina tolling arrangement were mostly offset by the \$105 gain in 2003 from insurance settlements of a series of historical environmental matters in the U.S., as well as a decrease in the cash surrender value of employee life insurance, among other smaller items.

Other income was \$274 in 2003 compared with \$178 in 2002. The increase of \$96, or 54%, was primarily due to a gain of \$105 from insurance settlements; \$66 of higher equity income, primarily at Elkem; and an increase in the cash surrender value of employee life insurance; partially offset by the unfavorable impact of foreign currency translation losses of \$51, primarily due to the impact of strengthening Australian and Canadian currencies; and several favorable nonoperating gains recognized in 2002.

**Income Taxes** — Alcoa's effective tax rate was 25.3% in 2004 compared with the statutory rate of 35% and Alcoa's effective tax rates of 24.4% in 2003 and 31.5% in 2002. The effective tax rate in 2004 reflects a number of discrete tax items that are required to be excluded from management's estimate of the annual effective tax rate:

- Reversal of valuation reserves on foreign net operating losses resulted in a reduction of the rate by approximately 1.0%;
- An agreement to sell a portion of Alcoa's interest in the Juruti bauxite reserves resulted in a reduction of the rate by .6%; and
- The sale of the specialty chemicals business in the first quarter of 2004 resulted in a reduction of the rate by .5%.

Management anticipates that the tax rate in 2005 will be similar to the tax rates for 2004 and 2003 excluding the impact of discrete tax items.

In October of 2004, the American Job Creation Act of 2004 (AJCA) was signed into law. The AJCA allows companies to repatriate earnings from foreign subsidiaries at a reduced U.S. tax rate. Alcoa is evaluating the consequences of repatriating up to \$1,000 with a related potential range of income tax effects of zero to \$90. The company expects to complete its review by December 31, 2005, and will recognize the income tax effect, if any, in the period when a decision whether to repatriate is made. Alcoa has also considered the impact of the Qualified Domestic Production Deduction provision of the AJCA and believes that the 2005 impact will be immaterial.

**Minority Interests** — Minority interests' share of income from operations was \$245 in 2004 compared with \$238 in 2003. The \$7 increase in 2004 was due to higher earnings at AWAC, attributed to higher realized prices, increased volumes, and the gain associated with the termination of an alumina tolling arrangement. This increase was partially offset by Alcoa's acquisition of the minority interest in Alcoa Aluminio in August 2003 and the sale of the specialty chemicals business in 2004.

Minority interests' share of income from operations was \$238 in 2003 compared with \$172 in 2002. The increase of \$66, or 38%, in 2003 was primarily due to higher earnings at AWAC, due to higher realized prices and higher volumes. This increase was somewhat offset by lower minority interests' share of income at Alcoa Aluminio resulting from Alcoa's acquisition of the remaining 40.9% shareholding from Camargo Correa Group in August 2003.

**Loss From Discontinued Operations** — Loss from discontinued operations was \$92 in 2004 compared with \$70 in 2003 and \$132 in 2002. The loss of \$92 was comprised of an impairment of \$89 related to a reduction in the estimated fair values of the telecommunications business, the protective packaging business, and a small casting business; \$8 of net operating losses; and a net gain of \$5 on divested businesses in 2004. The loss of \$70 in 2003 was comprised of an impairment of \$45 related to a reduction in the estimated fair value of the automotive fasteners business and \$25 of operating losses. The loss of \$132 in discontinued operations in 2002 was comprised of an impairment of \$59 to reduce the carrying values of certain businesses to be divested to their estimated fair values less costs to sell, \$53 of operating losses, and \$20 for the impairment of goodwill in the telecommunications business. See Note B to the Consolidated Financial Statements for further information.

**Cumulative Effect of Accounting Change** — The cumulative effect of accounting changes resulted in a charge of \$47 in 2003 compared with income of \$34 recognized in 2002. The adoption of SFAS No. 143, "Accounting for Asset Retirement Obligations" in 2003 resulted in a cumulative effect adjustment of \$47, consisting primarily of costs to establish assets and liabilities related to spent pot lining disposal for pots currently in operation. The adoption of SFAS No. 141, "Business Combinations" and SFAS No. 142, "Goodwill and Other Intangibles" in 2002 resulted in a cumulative effect adjustment of \$34, consisting of income from the write-off of negative goodwill from prior acquisitions of \$49, offset by a \$15 write-off for the impairment of goodwill in the automotive business resulting from a change in measurement criteria for impairments. See Notes A, C, and E to the Consolidated Financial Statements for further information.

### Segment Information

Alcoa's operations consist of five worldwide segments: Alumina and Chemicals, Primary Metals, Flat-Rolled Products, Engineered Products, and Packaging and Consumer. Alcoa businesses that are not reported to management as part of one of these five segments are combined and reported as "Other." Alcoa's management reporting system measures the after-tax operating income (ATOI) of each segment. Certain items, such as interest income, interest expense, foreign currency translation gains/losses, the effects of LIFO inventory accounting, minority interests, restructuring and other charges, discontinued operations, and accounting changes are excluded from segment ATOI. In addition, certain expenses, such as corporate general administrative expenses and depreciation and amortization on corporate assets, are not included in segment ATOI. Segment assets exclude cash, cash equivalents, short-term investments, and all deferred taxes. Segment assets also exclude items such as corporate fixed assets, LIFO reserves, goodwill allocated to corporate, assets held for sale, and other amounts.

ATOI for all segments totaled \$2,169 in 2004, \$1,740 in 2003, and \$1,549 in 2002. See Note Q to the Consolidated Financial Statements for additional information. The following discussion provides shipment, sales, and ATOI data for each segment for each of the three years in the period ended December 31, 2004. The financial information and data on shipments of all prior periods have been adjusted to remove the results of discontinued operations.

Effective January 2005, Alcoa realigned its organization structure, creating global groups to better serve customers and increase the ability to capture efficiencies. Alcoa is currently evaluating the effect, if any, upon its segment reporting.

## Alumina and Chemicals

	2004	2003	2002
Alumina production (mt)	14,343	13,841	13,027
Third-party alumina shipments (mt)	7,374	7,671	7,486
Third-party sales	\$ 1,975	\$ 2,002	\$ 1,743
Intersegment sales	1,418	1,021	955
<b>Total sales</b>	<b>\$ 3,393</b>	<b>\$ 3,023</b>	<b>\$ 2,698</b>
<b>ATOI</b>	<b>\$ 632</b>	<b>\$ 415</b>	<b>\$ 315</b>

This segment consists of Alcoa's worldwide alumina and chemicals system that includes the mining of bauxite, which is then refined into alumina. Alumina is sold directly to internal and external smelter customers worldwide or is processed into industrial chemical products. Alcoa's alumina operations in Australia are a significant component of this segment. Slightly more than half of Alcoa's alumina production is sold under supply contracts to third parties worldwide, while the remainder is used internally. Alcoa's specialty chemicals business was sold in the first quarter of 2004.

In 2004, alumina production increased by 502,000 mt, resulting primarily from the capacity expansion in Jamaica (14% increase in production) and the restart of capacity at Point Comfort, TX (13% increase in production), as well as an 11% increase in production at the San Ciprián, Spain refinery. In 2003, alumina production increased by 814,000 mt, principally due to the restart of capacity at Point Comfort, TX, which contributed an additional 592,000 mt (41% increase in production) in 2003, compared with 2002.

Third-party sales for the Alumina and Chemicals segment remained relatively flat in 2004 compared with 2003. The increase in realized prices of 23% in 2004 was more than offset by lower third-party volumes due to the expiration of an alumina purchase agreement in 2003, which resulted in higher intersegment sales in 2004. Also, the sale of the specialty chemicals business in 2004 negatively impacted sales by \$287. In 2003, third-party sales of alumina increased 15% compared with 2002, primarily due to an increase in realized prices of 17% influenced by higher LME prices and a tightening of the world alumina market, as well as increased shipments due to higher production at the Point Comfort, TX refinery.

ATOI for this segment rose 52% in 2004 compared with 2003 primarily due to higher realized prices and increased total volumes, a \$15 gain recognized on the termination of an alumina tolling arrangement, and a gain of \$37 recognized on the sale of a portion of Alcoa's interest in a Brazil bauxite project. These positive contributions were somewhat offset by unfavorable foreign currency exchange movements, higher raw material costs, and the loss of profit associated with the sale of the specialty chemicals business. ATOI in 2003 increased 32% compared with 2002 primarily due to higher realized prices and higher volumes, which were somewhat offset by higher energy costs and unfavorable foreign currency exchange movements.

In 2005, Alcoa will continue its brownfield projects at refineries in Suriname (addition of 250,000 mt – 137,000 mt is Alcoa's share) and Pinjarra, Western Australia (600,000 mt addition). A 250,000 mt expansion was completed at the Jamalco alumina refinery in 2004, with another 1,500,000 mt expansion planned. While market conditions for alumina appear to remain strong in 2005, Alcoa anticipates higher costs associated with caustic and energy. In addition, a stronger Australian dollar could also negatively impact earnings in this segment.

## Primary Metals

	2004	2003	2002
Aluminum production (mt)	3,376	3,508	3,500
Third-party aluminum shipments (mt)	1,882	1,952	2,073
Alcoa's average realized price per pound for aluminum ingot	\$ 0.85	\$ 0.70	\$ 0.66
Third-party sales	\$3,806	\$3,229	\$3,174
Intersegment sales	4,335	3,098	2,655
<b>Total sales</b>	<b>\$8,141</b>	<b>\$6,327</b>	<b>\$5,829</b>
<b>ATOI</b>	<b>\$ 808</b>	<b>\$ 657</b>	<b>\$ 650</b>

This segment consists of Alcoa's worldwide smelter system. Primary Metals receives alumina primarily from the Alumina and Chemicals segment and produces aluminum ingot to be used by Alcoa's fabricating businesses, as well as sold to external customers, aluminum traders, and commodity markets. Results from the sale of aluminum powder, scrap, and excess power are also included in this segment, as well as the results of aluminum derivative contracts. Aluminum ingot produced by Alcoa and used internally is transferred to other segments at prevailing market prices. The sale of ingot represents approximately 90% of this segment's third-party sales. In 2004, aluminum production decreased by 132,000 mt, principally due to the strike at the Bécancour facility.

Third-party sales for the Primary Metals segment increased 18% in 2004 compared with 2003 and increased 2% in 2003 compared with 2002 as higher realized prices in both periods more than offset lower third-party shipments. Realized prices increased 21% in 2004 compared with 2003 and 6% in 2003 compared with 2002. An electrical outage at the Alumar smelter in Brazil also had a negative impact on third-party sales in 2003. Intersegment sales increased 40% in 2004 and 17% in 2003 compared with previous periods due to higher realized prices and higher internal demand.

ATOI for this segment increased 23% in 2004 compared with 2003 as higher realized prices and higher total shipments were somewhat offset by the impact of unfavorable foreign currency exchange movements, higher costs for energy and purchased metal, and the effects of a strike at Bécancour in 2004. ATOI for this segment was relatively flat in 2003.

compared with 2002 as higher realized prices and ongoing cost savings were substantially offset by higher costs for energy, raw materials, and employee benefits, and the impact of unfavorable foreign currency exchange movements.

In 2004, Alcoa made significant progress toward restarting smelting capacity at the Wenatchee, WA; Bécancour, Canada; and Massena, NY facilities. Once these restarts are complete, Alcoa will have 361,000 metric tons per year (mtpy) of idle capacity on a base capacity of 4,004,000 mtpy. Also during 2004, Alcoa broke ground on its smelter in Iceland, which will add 322,000 mtpy of capacity, and announced an expansion at the Alumar smelter in Brazil. The Iceland smelter is expected to be completed in 2007; however, the unknown impact of pending litigation could affect the completion date. In 2005, the company will invest in a new anode plant in Norway, modernize a Spanish smelter, and continue to explore smelting opportunities in China and Trinidad and energy projects in Brazil. While capacity restarts and anticipated higher metal prices will add to revenue and profit in 2005, the company anticipates that higher energy costs will persist.

### Flat-Rolled Products

	2004	2003	2002
Third-party aluminum shipments (mt)	2,046	1,819	1,774
Third-party sales	\$5,962	\$4,815	\$4,640
Intersegment sales	89	66	68
<b>Total sales</b>	<b>\$6,051</b>	<b>\$4,881</b>	<b>\$4,708</b>
<b>ATOI</b>	<b>\$ 246</b>	<b>\$ 221</b>	<b>\$ 220</b>

This segment's principal business is the production and sale of aluminum plate, sheet, and foil. This segment includes rigid container sheet (RCS), which is sold directly to customers in the packaging and consumer market and is used to produce aluminum beverage cans. Seasonal increases in RCS sales are generally experienced in the second and third quarters of the year. This segment also includes sheet and plate used in the transportation, building and construction, and distributor markets (mainly used in the production of machinery and equipment and consumer durables), of which approximately two-thirds is sold directly to customers while the remainder is sold through distributors. Approximately two-thirds of the third-party sales in this segment are derived from sheet and plate, and foil used in industrial markets, while the remaining one-third of third-party sales consists of RCS. While the customer base for flat-rolled products is large, a significant amount of sales of RCS, sheet, and plate is to a relatively small number of customers.

Third-party sales for the Flat-Rolled Products segment increased 24% in 2004 compared with 2003. The increase was due to the acquisition of the remaining 50% interest in KAAL Australia (can sheet rolling mills) in October of 2003, higher prices, the favorable impact of foreign currency exchange movements in Europe, and increased volumes for sheet and plate. Increased volumes for these products resulted from improved performance in businesses serving the commercial transportation, aerospace, automotive, and distribution markets. Third-party sales increased 4% in 2003 compared with 2002, primarily due to the KAAL Australia acquisition, favorable foreign currency exchange movements in Europe, and increased volumes for RCS and sheet and plate. These positive contributions were offset by the absence of sales from the commercial foil business, which was discontinued as a result of a prior year's restructuring program.

ATOI for this segment increased 11% in 2004 compared with 2003, principally due to higher volumes, higher prices, improved productivity, and favorable mix for sheet and plate; favorable foreign currency exchange movements in Europe; and the contribution of KAAL Australia. These positive contributions were somewhat offset by a hot mill interruption at the Kitts Green facility in the U.K. and temporary throughput issues at the Tennessee can sheet facility. These issues were resolved in 2004. ATOI remained flat in 2003 compared with 2002, as the contribution of KAAL Australia to ATOI and the positive results in Europe due to favorable foreign currency exchange movements were offset by higher costs for raw materials, energy, and employee benefits for RCS and the U.S. sheet and plate business.

In January 2005, Alcoa completed the acquisition of two fabricating facilities in Samara and Belaya Kalitva in the Russian Federation.

### Engineered Products

	2004	2003	2002
Third-party aluminum shipments (mt)	929	879	919
Third-party sales	\$6,300	\$5,589	\$5,150
Intersegment sales	15	24	34
<b>Total sales</b>	<b>\$6,315</b>	<b>\$5,613</b>	<b>\$5,184</b>
<b>ATOI</b>	<b>\$ 250</b>	<b>\$ 155</b>	<b>\$ 105</b>

This segment includes hard- and soft-alloy extrusions, including architectural extrusions, super-alloy castings, steel and aluminum fasteners, aluminum forgings, and wheels. These products

serve the aerospace, automotive, commercial transportation, industrial gas turbine, building and construction, and distributor markets (mainly used in the production of machinery and equipment) and are sold directly to customers and through distributors.

Third-party sales for the Engineered Products segment increased 13% in 2004 compared with 2003, principally due to increased volumes in the commercial transportation, automotive, building and construction, and aerospace markets; higher prices; and favorable foreign currency exchange movements. Third-party sales increased 9% in 2003 compared with 2002, primarily as a result of the Fairchild acquisition, which contributed approximately \$560 in 2003. Additionally, higher sales in Europe, driven by the favorable impact of foreign currency exchange movements, contributed to the increase in 2003. These increases were somewhat offset by volume declines in businesses serving the industrial gas turbine and commercial building and construction markets.

ATOI for this segment increased 61% in 2004 compared with 2003, principally resulting from increased volumes due to improved market conditions as noted previously, higher prices, and strong productivity gains. ATOI increased 48% in 2003 compared with 2002, primarily due to cost savings, the contribution of Fairchild results in 2003, and favorable foreign currency exchange movements in Europe. These favorable results were somewhat offset by higher employee benefit costs.

In 2004, Alcoa continued to pursue expansion of the production of soft-alloy extrusions in Europe through additional production in Hungary and the construction of a new facility in Romania, to be completed in 2005.

#### Packaging and Consumer

	2004	2003	2002
Third-party aluminum shipments (mt)	164	167	162
Third-party sales	\$3,166	\$3,113	\$2,792
ATOI	\$ 168	\$ 214	\$ 195

This segment includes consumer, foodservice, and flexible packaging products; food and beverage closures; plastic sheet and film for the packaging industry; and imaging and graphic communications for the packaging industry. The principal products in this segment include aluminum foil; plastic wraps and bags; plastic beverage and food closures; flexible packaging products; design and prepress services; gravure and flexographic image carrier products; thermoformed plastic containers and extruded plastic sheet and film. Consumer products are marketed under brands including Reynolds Wrap<sup>®</sup>, Diamond<sup>®</sup>, Baco<sup>®</sup>, and Cut-Rite<sup>®</sup> wax paper. Seasonal increases generally occur in the second and fourth quarters of the year for such products as consumer foil and plastic wraps and bags, while seasonal slowdowns for closures generally occur in the fourth quarter of the year. Products are generally sold directly to customers, consisting of supermarkets, beverage companies, food processors, retail chains, and commercial foodservice distributors.

Third-party sales for the Packaging and Consumer segment increased 2% in 2004 compared with 2003, primarily due to increased volumes in the closures, plastic sheet and film, and the imaging and graphic communications businesses and higher prices. These positive contributions were partly offset by the impact of the sale of Alcoa's Latin America PET business. In 2003, sales increased 11% compared with 2002, primarily as a result of the Ivex acquisition, which contributed approximately \$305 more in 2003 than in 2002. Higher volumes in the closures business also contributed to the sales increase in 2003.

ATOI for this segment in 2004 decreased 21% compared with 2003, primarily due to significantly higher resin and metal costs, unfavorable foreign currency exchange movements, and the divestitures of the Latin America PET business and Latasa, which were somewhat offset by increased volumes as noted above. In 2003, increased volumes in the closures business and positive results in Latin America due to improved economic conditions contributed to the 9% increase in ATOI compared with 2002, despite significantly higher resin prices and the divestitures of the Latin America PET business and Latasa.

During 2004, Alcoa continued its globalization of the closures business with new operations in Asia and Egypt. In 2005, higher input costs are anticipated for resin and metal.

#### Other

	2004	2003	2002
Third-party aluminum shipments (mt)	72	87	79
Third-party sales	\$2,269	\$2,344	\$2,435
ATOI	\$ 65	\$ 78	\$ 64

This group includes other Alcoa businesses that are not included in the segments previously mentioned. This group includes the automotive business of Alcoa Fujikura, Ltd. (AFL), which produces electrical components for the automotive industry; the residential building products operations, Alcoa Home Exteriors; and automotive parts businesses. Products in this segment are generally sold directly to customers or through distributors. AFL sales are dependent on a relatively small number of customers. Seasonal increases in the building products business generally occur in the second and third

quarters of the year. The results of this segment do not include Alcoa's telecommunications business which was reclassified into discontinued operations.

Third-party sales for the Other group declined 3% in 2004 compared with 2003 and 4% in 2003 compared with 2002 primarily at AFL, as the automotive business continued to rebalance the customer base. In 2004, the decline was partially offset by higher volumes in the residential building products business and favorable foreign currency exchange movements. In 2003, the disposition of distribution facilities in Europe also contributed to the sales decline.

ATOI for this group decreased 17% in 2004 compared with 2003, principally due to decreased volumes and higher raw material costs, which were partially offset by higher equity income from Integris Metals and productivity improvements in the automotive parts business. ATOI for this group increased 22% in 2003 compared with 2002. The increase in ATOI is primarily due to productivity and purchasing cost savings recognized at AFL.

During 2004, Alcoa focused on low cost sourcing by opening an automotive facility in Honduras.

#### Reconciliation of ATOI to Consolidated Net Income —

The following table reconciles segment ATOI to consolidated net income.

	2004	2003	2002
ATOI	\$2,169	\$1,740	\$1,549
Intersegment profit/loss eliminations	52	9	(6)
Unallocated amounts (net of tax):			
Interest income	26	24	31
Interest expense	(176)	(204)	(227)
Minority interests	(245)	(238)	(172)
Corporate expense	(283)	(287)	(234)
Restructuring and other charges	23	26	(296)
Discontinued operations	(92)	(70)	(132)
Accounting changes	—	(47)	34
Other	(164)	(15)	(127)
Consolidated net income	<u>\$1,310</u>	<u>\$ 938</u>	<u>\$ 420</u>

Items required to reconcile segment ATOI to consolidated net income include:

- Corporate adjustments to eliminate any remaining profit or loss between segments;
- The after-tax impact of interest income and expense;
- Minority interests;
- Corporate expense, comprised of general administrative and selling expenses of operating the corporate headquarters and other global administrative facilities along with depreciation on corporate-owned assets;
- Restructuring and other charges (excluding minority interests);
- Discontinued operations;
- Accounting changes for asset retirement obligations in 2003 and goodwill in 2002; and
- Other, which includes the impact of LIFO, differences between estimated tax rates used in the segments and the corporate effective tax rate and other nonoperating items such as foreign currency translation gains/losses.

The significant changes in the reconciling items between ATOI and consolidated net income for 2004 compared with 2003 consisted of:

- A decrease in interest expense primarily due to lower average debt levels;
- An increase in the loss from discontinued operations due to the reclassification of the protective packaging business, the telecommunications business, and a small casting business to discontinued operations, which resulted in an \$89 impairment loss in 2004 to reflect the estimated fair values of these businesses; and
- An increase in Other, principally caused by an increase in LIFO inventory adjustments due to the increase in the price of aluminum, as well as \$79 lower proceeds from insurance settlements compared with 2003. Partially offsetting the increase are \$49 in favorable foreign currency exchange movements and a \$38 gain recognized on the restructuring of debt in 2004. See Note K to the Consolidated Financial Statements for additional information on this transaction.

The significant changes in the reconciling items between ATOI and consolidated net income for 2003 compared with 2002 consisted of:

- An increase in corporate expense, primarily due to an increase in deferred compensation costs.
- A decrease in Other, primarily due to an increase in the cash surrender value of employee life insurance (which essentially offsets the increase in deferred compensation costs), insurance settlements of past environmental matters, and lower taxes related to differences between statutory tax rates applied and the overall corporate effective tax rate, and higher equity income, primarily Elkem. These increases were partly offset by the unfavorable impact of a higher LIFO benefit recognized in 2002, as well as foreign currency translation losses.

#### Market Risks and Derivative Activities

In addition to the risks inherent in its operations, Alcoa is exposed to financial, market, political, and economic risks. The following discussion provides information regarding Alcoa's exposure to the risks of changing commodity prices, foreign exchange rates, and interest rates.

Alcoa's derivative activities are subject to the management, direction, and control of the Strategic Risk Management Committee (SRMC). The SRMC is composed of the chief executive officer, the chief financial officer, and other officers and employees that the chief executive officer selects. The SRMC reports to the Board of Directors on the scope of its activities.

All of the interest rate, foreign currency, aluminum and other commodity contracts are held for purposes other than trading. They are used primarily to mitigate uncertainty and volatility, and to cover underlying exposures. The company is not involved in energy-trading activities, weather derivatives, or other nonexchange commodity-trading activities.

**Commodity Price Risks** — Alcoa is a leading global producer of primary aluminum products and aluminum fabricated products. As a condition of sale, customers often require Alcoa to enter into long-term, fixed-price commitments. These commitments expose Alcoa to the risk of higher aluminum prices between the time the order is committed and the time that the order is shipped. Alcoa uses futures contracts, totaling approximately 1,000,000 mt at December 31, 2004, to reduce the aluminum price risk of these fixed-price firm commitments. The effects of this hedging activity will be recognized in earnings over the designated hedge periods, generally within three years.

Alcoa has also entered into futures contracts to minimize its price risk related to aluminum purchases. Alcoa has not qualified these contracts for hedge accounting treatment, and therefore, the fair value gains and losses on these contracts are recorded in earnings. These contracts totaled 67,000 mt at December 31, 2004. In addition, Alcoa has entered into power supply contracts that contain pricing provisions related to the LME aluminum price. The LME linked pricing features are considered embedded derivatives. A majority of these embedded derivatives have been designated as hedges of future sales of aluminum. Gains and losses on the remainder of these derivatives are recognized in earnings. The net earnings impact of these contracts was a gain of \$5 in 2004.

Alcoa purchases natural gas, fuel oil, and electricity to meet its production requirements and believes it is highly likely that such purchases will continue in the future. These purchases expose the company to the risk of higher prices. To hedge a portion of these risks, Alcoa uses futures and forward contracts.

## Financial Risk

**Interest Rates** — Alcoa uses interest rate swaps to help maintain a strategic balance between fixed- and floating-rate debt and to manage overall financing costs. For a portion of its fixed-rate debt, the company has entered into pay floating, receive fixed interest rate swaps to effectively change the fixed interest rates to floating interest rates.

Alcoa previously used interest rate swaps to establish fixed interest rates on anticipated borrowings between June 2005 and June 2006. Due to a change in forecasted borrowing requirements, resulting from the early retirement of debt in June 2004 and a forecasted increase in future operating cash flows resulting from improved market conditions, it is no longer probable that the anticipated borrowings will occur in 2005 and 2006. Therefore, Alcoa recognized \$33 of gains that had been deferred on previously settled swaps and \$44 of additional gains to terminate the remaining interest rate swaps. These amounts were included in the \$58 gain on the restructuring of debt that was recorded in other income in the second quarter of 2004.

**Currencies** — Alcoa is subject to exposure from fluctuations in foreign currency exchange rates. Foreign currency exchange contracts may be used from time to time to hedge the variability in cash flows from the forecasted payment or receipt of currencies other than the functional currency. These contracts cover periods consistent with known or expected exposures, generally within three years.

**Fair Values and Sensitivity Analysis** — The following table shows the fair values of outstanding derivatives contracts at December 31, 2004 and the effect on fair value of a hypothetical change (increase or decrease of 10%) in the market prices or rates that existed at December 31, 2004.

	Fair value gain/(loss)	Price change of + / -10%
Aluminum	\$ 211	\$ 145
Interest rates	(42)	74
Other commodities, principally natural gas	53	56
Currencies	38	16

**Material Limitations** — The disclosures with respect to commodity prices, interest rates, and foreign exchange risk do not take into account the underlying commitments or anticipated transactions. If the underlying items were included in the analysis, the gains or losses on the futures contracts may be offset. Actual results will be determined by a number of factors that are not under Alcoa's control and could vary significantly from those factors disclosed.

Alcoa is exposed to credit loss in the event of nonperformance by counterparties on the above instruments, as well as credit or performance risk with respect to its hedged customers' commitments. Although nonperformance is possible, Alcoa does not anticipate nonperformance by any of these parties. Futures contracts are with creditworthy counterparties and are further supported by cash, treasury bills, or irrevocable letters of credit issued by carefully chosen banks. In addition, various master netting arrangements are in place with counterparties to facilitate settlement of gains and losses on these contracts.

For additional information on derivative instruments, see Notes A, K, and X to the Consolidated Financial Statements.

## Environmental Matters

Alcoa continues to participate in environmental assessments and cleanups at a number of locations. These include approximately 30 owned or operating facilities and adjoining properties, approximately 39 previously owned or operating facilities and adjoining properties, and approximately 67 waste sites, including Superfund sites. A liability is recorded for environmental remediation costs or damages when a cleanup program becomes probable and the costs or damages can be reasonably estimated. For additional information, see Notes A and Y to the Consolidated Financial Statements.

As assessments and cleanups proceed, the liability is adjusted based on progress made in determining the extent of remedial actions and related costs and damages. The liability can change substantially due to factors such as the nature and extent of contamination, changes in remedial requirements, and technological changes. Therefore, it is not possible to determine the outcomes or to estimate with any degree of accuracy the potential costs for certain of these matters.

The following discussion provides additional details regarding the current status of Alcoa's significant sites where the final outcome cannot be determined or the potential costs in the future cannot be estimated.



Alcoa has been conducting investigations and studies of the Grasse River, adjacent to Alcoa's Massena, New York plant site, under order from the U.S. Environmental Protection Agency (EPA) issued under the Comprehensive Environmental Response, Compensation and Liability Act, also known as Superfund. Sediments and fish in the river contain varying levels of polychlorinated biphenyl (PCB).

In 2002, Alcoa submitted an Analysis of Alternatives Report that detailed a variety of remedial alternatives with estimated costs ranging from \$2 to \$525. Because the selection of the \$2 alternative (natural recovery) was considered remote, Alcoa adjusted the reserve for the Grasse River in 2002 to \$30 representing the low end of the range of possible alternatives, as no single alternative could be identified as more probable than the others.

In June of 2003, based on river observations during the spring of 2003, the EPA requested that Alcoa gather additional field data to assess the potential for sediment erosion from winter river ice formation and breakup. The results of these additional studies, submitted in a report to the EPA in April of 2004, suggest that this phenomenon has the potential to occur approximately every 10 years and may impact sediments in certain portions of the river under all remedial scenarios. The EPA informed Alcoa that a final remedial decision for the river could not be made without substantially more information, including river pilot studies on the effects of ice formation and breakup on each of the remedial techniques. The EPA requested that Alcoa consider a Remedial Options Pilot Study (ROPS) to gather this information. The scope of this study includes sediment removal and capping, the installation of an ice control structure, and significant monitoring.

In May of 2004, Alcoa agreed to perform the study at an estimated cost of \$35. Most of the work should be completed by the fourth quarter of 2005. It is anticipated that a report of findings will be issued to the EPA in 2006. Subsequent to this submittal, a revised Analysis of Alternatives Report will be submitted to the EPA at a date to be determined. This information will be used by the EPA to propose a remedy for the entire river.

Alcoa adjusted the reserves in the second quarter of 2004 to include the \$35 for the ROPS. This is in addition to the \$30 previously reserved. With the exception of the natural recovery remedy, none of the existing alternatives in the 2002 Analysis of Alternatives Report is currently more probable than the others and the results of the ROPS are necessary to revise the scope and estimated cost of many of the current alternatives.

The EPA's ultimate selection of a remedy could result in additional liability. Alcoa may be required to record a subsequent reserve adjustment at the time the EPA's Record of Decision is issued.

In connection with the sale of the Sherwin alumina refinery in Texas, which was required to be divested as part of the Reynolds merger in 2000, Alcoa has agreed to retain responsibility for the remediation of then existing environmental conditions, as well as a pro rata share of the final closure of the active waste disposal areas, which remain in use. Alcoa's share of the closure costs is proportional to the total period of operation of the active waste disposal areas. Alcoa estimated its liability for the active disposal areas by making certain assumptions about the period of operation; the amount of material placed in the area prior to closure; and the appropriate technology, engineering, and regulatory status applicable to final closure. The most probable cost for remediation has been reserved. It is reasonably possible that an additional liability, not expected to exceed \$75, may be incurred if actual experience varies from the original assumptions used.

Based on the foregoing, it is possible that Alcoa's results of operations, in a particular period, could be materially affected by matters relating to these sites. However, based on facts currently available, management believes that adequate reserves have been provided and that the disposition of these matters will not have a materially adverse effect on the financial position or liquidity of the company.

Alcoa's remediation reserve balance at the end of 2004 and 2003 was \$391 and \$395 (of which \$73 and \$65 was classified as a current liability), respectively, and reflects the most probable costs to remediate identified environmental conditions for which costs can be reasonably estimated. Remediation expenses charged to the reserve were approximately \$46 in 2004, \$32 in 2003, and \$50 in 2002. These amounts include expenditures currently mandated, as well as those not required by any regulatory authority or third party. The reserve balance was increased by \$42 in 2004, principally for the additional reserve recorded for the Grasse River site. In 2003, the reserve balance was reduced by approximately \$9, primarily for adjustments based on recent assessments of remaining work required at certain sites.

Included in annual operating expenses are the recurring costs of managing hazardous substances and environmental programs. These costs are estimated to be about 2% of cost of goods sold.

### **Liquidity and Capital Resources**

Alcoa takes a disciplined approach to cash management and strengthening its balance sheet, as it undertook aggressive capital controls, management of working capital, and continued focus on its divestiture plan in 2004. These actions helped the company to retire approximately \$2,000 of debt over the past two years. Capital spending increased 32%, as Alcoa made continued progress on brownfield expansions in refining and smelting and broke ground on the greenfield smelter construction in Iceland. Increased sales contributed to Alcoa's cash from operations of \$2,199 in 2004. Additionally, progress on the divestiture program with the sales of the automotive fasteners business, the packaging equipment business, and the specialty chemicals business in 2004, facilitated payments of debt, which aided in a reduction in the debt-to-capital ratio from 35.1% in 2003 to 30.0% in 2004.

Cash provided from operations and from the divestiture plan is anticipated to be adequate to cover dividends, debt repayments, capital expenditures, and other business needs over the next 12 months.

## Cash from Operations

Cash from operations in 2004 was \$2,199 compared with \$2,434 in 2003. The decrease of \$235, or 10%, was primarily due to increases in inventories due to higher metal prices and the absence of proceeds from a \$440 advance payment against a long-term aluminum supply contract that occurred in 2003. Partially offsetting these items were stronger earnings in 2004 compared with 2003 and an increase in taxes payable and accounts payable. Cash from operations in 2003 was \$2,434 compared with \$1,844 in 2002. The increase of \$590, or 32%, was primarily due to higher earnings after adjustments for noncash items, as well as proceeds of \$440 from an advance payment against a long-term aluminum supply contract. Partially offsetting these increases were higher working capital requirements, primarily attributed to an increase in accounts receivable due to higher sales. See the Results of Operations discussion for further details.

## Financing Activities

Cash used for financing activities was \$1,525 in 2004 compared with \$1,714 in 2003. The change of \$189 was primarily due to an increase in short-term borrowings related to accounts payable arrangements and lower dividends paid to minority interests.

Cash used for financing activities was \$1,714 in 2003 compared with cash provided from financing activities of \$591 in 2002, resulting in a change of \$2,305, primarily due to borrowing activities. Net cash used to pay down short-term borrowings, commercial paper, and long-term debt was \$1,089 in 2003 compared with net cash provided from borrowing activities of \$1,466 in 2002, primarily used to fund the acquisitions of Ivex and Fairchild. In August 2002, Alcoa issued \$1,400 of notes. Of these notes, \$800 mature in 2007 and carry a coupon rate of 4.25%, and \$600 mature in 2013 and carry a coupon rate of 5.375%.

During 2004, Standard and Poor's Rating Services (S&P) maintained its long-term debt rating of Alcoa at A- and its short-term rating at A-2. In January 2005, S&P revised its outlook for Alcoa to negative from stable, citing higher capital expenditures in 2005 and future years. There was no change to either Alcoa's long-term or short-term ratings. Moody's Investors Service long-term debt rating of Alcoa and its rated subsidiaries is A2 and its short-term debt rating of Alcoa is Prime-1.

Alcoa maintains \$3,000 of revolving-credit agreements with varying expiration dates as backup to its commercial paper program. In April 2004, Alcoa refinanced its \$2,000 revolving-credit agreement that expired in April 2004 into a \$1,000 revolving-credit agreement that will expire in April 2005, with an option to extend the maturity of any borrowings outstanding on the April 2005 expiration date for one year. Additionally, Alcoa refinanced its \$1,000 revolving-credit agreement that was to expire in April 2005 into a \$1,000 revolving-credit agreement that will expire in April 2009. Alcoa also has a \$1,000 revolving-credit agreement that will expire in April 2008. Alcoa intends to refinance the April 2005 agreement in April 2005. Debt of \$57 will mature in 2005.

## Investing Activities

Cash used for investing activities was \$802 in 2004 compared with \$526 in 2003, resulting in a change of \$276. The increase was caused primarily by an increase in capital spending of \$273 as Alcoa invested in alumina and smelting expansions, as well as the greenfield smelter construction in Iceland in 2004. Cash proceeds from the sales of assets were \$228 higher in 2004, due to the substantial completion of the company's 2002 divestiture plan, partially offset by a \$129 decrease in cash received on the sale of investments.

Cash used for investing activities was \$526 in 2003 compared with \$2,547 in 2002, resulting in a change of \$2,021. The decrease in cash used in 2003 was primarily due to disciplined capital spending, which drove a reduction of \$403 in capital expenditures. Cash proceeds from sales of assets and investments was \$166 higher in 2003, primarily due to the sales of the PET business and Latasa. Additionally, acquisitions used \$1,244 more cash in 2002 compared with 2003 as a result of the acquisitions of Ivex and Fairchild.

Capital expenditures were \$1,143 in 2004 compared with \$870 and \$1,273 in 2003 and 2002, respectively. Of the total capital expenditures in 2004, approximately 36% related to growth projects, including alumina refinery expansions in Australia, Jamaica, and Suriname, as well as the construction of a smelter in Iceland. Also included are costs of new and expanded facilities for environmental control in ongoing operations totaling \$70 in 2004, \$37 in 2003, and \$115 in 2002. Capital expenditures related to environmental control are anticipated to be approximately \$112 in 2005. Total capital expenditures are anticipated to be approximately \$2,500 in 2005.

Alcoa added \$69, \$11, and \$112 to its investments in 2004, 2003, and 2002, respectively. In January of 2004, Alcoa paid

\$32 to acquire approximately 44 million additional shares of Chalco to maintain its 8% ownership interest. Cash paid for investments of \$112 in 2002 was primarily due to the purchase of additional shares in the Norwegian metals producer, Elkem.

For a discussion of long-term liquidity, see the disclosure included in Contractual Obligations and Off-Balance Sheet Arrangements that follows.

### **Critical Accounting Policies and Estimates**

The preparation of the financial statements in accordance with generally accepted accounting principles requires management to make judgments, estimates, and assumptions regarding uncertainties that affect the reported amounts of assets and liabilities, disclosure of contingent assets and liabilities, and the reported amounts of revenues and expenses. Areas that require significant judgments, estimates, and assumptions include the accounting for derivatives, environmental matters, asset retirement obligations, the testing of goodwill and other intangible assets for impairment, estimated proceeds on businesses to be divested, pensions and other postretirement benefits, and tax matters. Management uses historical experience and all available information to make these judgments and estimates, and actual results will inevitably differ from those estimates and assumptions that are used to prepare the company's financial statements at any given time. Despite these inherent limitations, management believes that Management's Discussion and Analysis of Financial Condition and Results of Operations (MD&A) and the financial statements and related footnotes provide a meaningful and fair perspective of the company. A discussion of the judgments and uncertainties associated with accounting for derivatives and environmental matters can be found in the Market Risks and Environmental Matters sections of MD&A.

A summary of the company's significant accounting policies is included in Note A to the Consolidated Financial Statements. Management believes that the application of these policies on a consistent basis enables the company to provide the users of the financial statements with useful and reliable information about the company's operating results and financial condition.

In 2002, Alcoa adopted the new standard of accounting for goodwill and intangible assets with indefinite lives. The cumulative effect adjustment recognized on January 1, 2002, upon adoption of the new standard, was income of \$34 (after tax). Also in 2002, amortization ceased for goodwill and intangible assets with indefinite lives. Additionally, goodwill and indefinite lived intangibles are required to be tested for impairment at least annually. The evaluation of impairment involves comparing the current fair value of the business to the recorded value (including goodwill). The company uses a discounted cash flow model (DCF model) to determine the current fair value of the business. A number of significant assumptions and estimates are involved in the application of the DCF model to forecast operating cash flows, including markets and market share, sales volumes and prices, costs to produce, and working capital changes. Management considers historical experience and all available information at the time the fair values of its businesses are estimated. However, actual fair values that could be realized in an actual transaction may differ from those used to evaluate the impairment of goodwill.

The fair values of all businesses to be divested are estimated using accepted valuation techniques such as a DCF model, earnings multiples, or indicative bids, when available. A number of significant estimates and assumptions are involved in the application of these techniques, including the forecasting of markets and market share, sales volumes and prices, costs and expenses, and multiple other factors. Management considers historical experience and all available information at the time the estimates are made; however, the fair values that are ultimately realized upon the sale of the businesses to be divested may differ from the estimated fair values reflected in the financial statements.

Other areas of significant judgments and estimates include the liabilities and expenses for pensions and other postretirement benefits. These amounts are determined using actuarial methodologies and incorporate significant assumptions, including the rate used to discount the future estimated liability, the long-term rate of return on plan assets, and several assumptions relating to the employee workforce (salary increases, medical costs, retirement age, and mortality). The rate used to discount future estimated liabilities is determined considering the rates available at year-end on debt instruments that could be used to settle the obligations of the plan. The impact on the liabilities of a change in the discount rate of  $\frac{1}{4}$  of 1% is approximately \$350 and a change of \$16 to after-tax earnings in the following year. The long-term rate of return is estimated by considering historical returns and expected returns on current and projected asset allocations and is generally applied to a five-year average market value of assets. A change in the assumption for the long-term rate of return on plan assets of  $\frac{1}{4}$  of 1% would impact after-tax earnings by approximately \$12 for 2005.

In 2002, the declines in equity markets and interest rates had a negative impact on Alcoa's pension plan liability and fair value of plan assets. As a result, the accumulated benefit obligation exceeded the fair value of plan assets at the end of 2002, which resulted in a net charge of \$851 to shareholders' equity. In 2003, a net charge of \$39 was recorded in shareholders' equity as strong asset returns of 19.75% almost entirely offset higher accumulated benefit obligations resulting from a 50 basis point decline in the discount rate. A net charge of \$21 in shareholders' equity in 2004 reflected asset returns of 12%, which were more than offset by higher accumulated benefit obligations caused by a 25 basis point decline in the discount rate.

As a global company, Alcoa records an estimated liability for income and other taxes based on what it determines will likely be paid in the various tax jurisdictions in which it operates. Management uses its best judgment in the determination of these amounts. However, the liabilities ultimately realized and paid are dependent on various matters, including the resolution of the tax audits in the various affected tax jurisdictions, and may differ from the amounts recorded. An adjustment to the estimated liability would be recorded through income in the period in which it becomes probable that the amount of the actual liability differs from the amount recorded. Alcoa has unamortized tax deductible goodwill of \$573 resulting from intercompany stock sales and reorganizations (generally at a 34% rate). Alcoa recognizes the tax benefits associated with this tax deductible goodwill as it is being amortized for local income tax purposes from 2004 through 2009, rather than in the period in which the transaction was consummated.

### Related Party Transactions

Alcoa buys products from and sells products to various related companies, consisting of entities in which Alcoa retains a 50% or less equity interest, at negotiated arms-length prices between the two parties. These transactions were not material to the financial position or results of operations of Alcoa at December 31, 2004.

### Recently Issued Accounting Standards

SFAS No. 123 (revised 2004) "Share-Based Payment" was issued in December 2004. This standard requires companies to measure and recognize the cost of employee services received in exchange for an award of equity instruments based on the grant-date fair value. The effective date is the first interim reporting period beginning after June 15, 2005. Alcoa is currently evaluating pricing models and the transition provisions of this standard and will begin expensing stock options in the third quarter of 2005.

In November 2004, the Financial Accounting Standards Board (FASB) issued SFAS No. 151, "Inventory Costs – an Amendment of ARB No. 43, Chapter 4." This standard provides clarification that abnormal amounts of idle facility expense, freight, handling costs, and spoilage should be recognized as current-period charges. Additionally, this standard requires that allocation of fixed production overheads to the costs of conversion be based on the normal capacity of the production facilities. The provisions of this standard are effective for inventory costs incurred during fiscal years beginning after June 15, 2005. This standard does not have a material impact to Alcoa's financial statements.

### Contractual Obligations and Off-Balance Sheet Arrangements

The company is obligated to make future payments under various contracts such as long-term purchase obligations, debt agreements, lease agreements, and unconditional purchase obligations and has certain contingent commitments such as debt guarantees. The company has grouped these contractual obligations and off-balance sheet arrangements into operating activities, financing activities, and investing activities in the same manner as they are classified in the Statement of Consolidated Cash Flows in order to provide a better understanding of the nature of the obligations and arrangements and to provide a basis for comparison to historical information. The table below provides a summary of contractual obligations and off-balance sheet arrangements as of December 31, 2004:

Contractual obligations	Total	2005	2006–2007	2008–2009	Thereafter
<b>Operating activities:</b>					
Energy-related purchase obligations	\$8,849	\$ 1,151	\$ 1,325	\$ 959	\$ 5,414
Raw material and other purchase obligations	2,311	1,483	603	90	135
Operating leases <sup>(1)</sup>	1,147	225	350	216	356
Estimated pension funding	(2)	57	600	400	(2)
Postretirement benefit payments	(2)	358	700	700	(2)
Layoff and impairment payments <sup>(3)</sup>	64	64	—	—	—
Deferred revenue arrangements	563	132	163	129	139
<b>Financing activities:</b>					
Total debt <sup>(4)</sup>	6,300	954	932	237	4,177
Dividends to shareholders <sup>(5)</sup>					
<b>Investing activities:</b>					
Capital projects <sup>(6)</sup>	2,746	1,396	1,302	48	—
Acquisitions	257	257	—	—	—
<b>Other:</b>					
Standby letters of credit <sup>(7)</sup>	293	249	2	3	39
Guarantees <sup>(7)</sup>	128	—	10	13	105
<b>Total contractual obligations</b>		<b>\$6,326</b>	<b>\$ 5,987</b>	<b>\$ 2,795</b>	

<sup>(1)</sup> See Note U to the Consolidated Financial Statements for further details on operating leases.

<sup>(2)</sup> Annual payments and funding are expected to continue into the foreseeable future at the amounts or ranges noted in the discussion below.

<sup>(3)</sup> See Note D to the Consolidated Financial Statements for further details on layoff and impairment payments.

<sup>(4)</sup> See Note K to the Consolidated Financial Statements for further details on debt and associated interest.

<sup>(5)</sup> See discussion below under Obligations for Financing Activities.

<sup>(6)</sup> See discussion below under Obligations for Investing Activities.

<sup>(7)</sup> See Note N to the Consolidated Financial Statements for further details on standby letters of credit and guarantees.

### **Obligations for Operating Activities**

The table provides a summary of the type or nature of the company's obligations associated with operating activities that exceed \$5 annually or \$10 in total over the life of the contract. Energy-related purchase obligations consist primarily of electricity and natural gas contracts with expiration dates ranging from less than one year to 40 years. The majority of raw material and other purchase obligations have expiration dates of 24 months or less. Operating leases represent multi-year obligations for rental of facilities and equipment.

Estimated pension funding and postretirement benefit payments are based on actuarial estimates using current assumptions for discount rates, expected return on long-term assets, rate of compensation increases, and health care cost trend rates. Cash outlays for pension funding are estimated to be \$57 for 2005, \$100 for 2006, and \$500 for 2007. The increase in 2007 is a result of the depletion of prior pension-funding credits that are projected to be fully used during 2006, requiring additional funding in 2007. The funding estimate for 2008 and 2009 is \$400. Postretirement benefit payments are expected to approximate \$350 annually. Annual payments will vary based on actuarial estimates. See Note W to the Consolidated Financial Statements for additional information.

Deferred revenue arrangements require Alcoa to deliver aluminum and alumina over the specified contract period. While these obligations are not expected to result in cash payments, they represent contractual obligations for which the company would be obligated if the specified product deliveries could not be made.

### **Obligations for Financing Activities**

Cash outlays for financing activities consist primarily of debt and dividend payments to shareholders. The company has historically paid quarterly dividends to shareholders. Shareholder dividends are subject to quarterly approval by the company's Board of Directors and are currently at a rate of \$524 annually.

### **Obligations for Investing Activities**

Alcoa has made announcements indicating its intention to participate in several significant expansion projects. These projects include the construction of a smelter in Iceland; the expansion of alumina refineries at Pinjarra, Australia; Clarendon, Jamaica; and Suriname, South America; the expansion of a smelter in São Luis, Brazil; the construction of a smelter in Trinidad; a smelter joint venture project in China; and the investment in several hydroelectric power construction projects in Brazil. These projects are in various stages of development and, depending on business and/or regulatory circumstances, may not be completed. The amounts included in the table above for capital projects represent the amounts which have been approved by management for these projects as of December 31, 2004. Funding levels vary in future years based on anticipated construction schedules of the projects.

It is anticipated that significant expansion projects will be funded through various sources, including cash provided from operations. Alcoa anticipates that financing required to execute all of these investments will be readily available over the time frame required.

In January 2005, Alcoa acquired two fabricating facilities in the Russian Federation for \$257 in cash.

In December 2004, Alcoa signed a letter of intent with Fujikura Ltd. of Japan in which Alcoa will obtain complete ownership of the AFL automotive business, and Fujikura will obtain complete ownership of the AFL telecommunications business. This transaction is in the negotiation phase, and any cash requirements have not yet been determined. This transaction is not reflected in the Contractual Obligations and Off-Balance Sheet Arrangements table.

## Management's Reports to Alcoa Shareholders

### Management's Report on Financial Statements and Practices

The accompanying consolidated financial statements of Alcoa Inc. and its subsidiaries (the "Company") were prepared by management, which is responsible for their integrity and objectivity. The statements were prepared in accordance with generally accepted accounting principles and include amounts that are based on management's best judgments and estimates. The other financial information included in the annual report is consistent with that in the financial statements.

Management also recognizes its responsibility for conducting the Company's affairs according to the highest standards of personal and corporate conduct. This responsibility is characterized and reflected in key policy statements issued from time to time regarding, among other things, conduct of its business activities within the laws of the host countries in which the Company operates and potentially conflicting outside business interests of its employees. The Company maintains a systematic program to assess compliance with these policies.

### Management's Report on Internal Control over Financial Reporting

Management is responsible for establishing and maintaining adequate internal control over financial reporting for the Company. In order to evaluate the effectiveness of internal control over financial reporting, as required by Section 404 of the Sarbanes-Oxley Act, management has conducted an assessment, including testing, using the criteria in *Internal Control – Integrated Framework*, issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). The Company's system of internal control over financial reporting is designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Based on its assessment, management has concluded that the Company maintained effective internal control over financial reporting as of December 31, 2004, based on criteria in *Internal Control – Integrated Framework* issued by the COSO. Management's assessment of the effectiveness of the Company's internal control over financial reporting as of December 31, 2004, has been audited by PricewaterhouseCoopers LLP, an independent registered public accounting firm, as stated in their report which is included herein.

### Management's Certifications

The certifications of the Company's Chief Executive Officer and Chief Financial Officer required by the Sarbanes-Oxley Act have been included as Exhibits 31 and 32 in the Company's Form 10-K. In addition, in 2004, the Company's Chief Executive Officer provided to the New York Stock Exchange the annual CEO certification regarding the Company's compliance with the New York Stock Exchange's corporate governance listing standards.



Alain J.P. Belda  
Chairman and  
Chief Executive Officer



Richard B. Kelson  
Executive Vice President  
and Chief Financial Officer

## Report of Independent Registered Public Accounting Firm

To the Shareholders and Board of Directors of Alcoa Inc.:

We have completed an integrated audit of Alcoa Inc.'s 2004 consolidated financial statements and of its internal control over financial reporting as of December 31, 2004 and audits of its 2003 and 2002 consolidated financial statements in accordance with the standards of the Public Company Accounting Oversight Board (United States). Our opinions, based on our audits, are presented below.

### Consolidated financial statements

In our opinion, the accompanying consolidated balance sheet and the related consolidated statements of income, shareholders' equity and cash flows present fairly, in all material respects, the financial position of Alcoa Inc. and its subsidiaries (Alcoa) at December 31, 2004 and 2003, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2004 in conformity with accounting principles generally accepted in the United States of America. These financial statements are the responsibility of Alcoa's management. Our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits of these statements in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit of financial statements includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

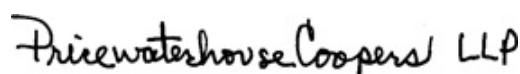
As discussed in Note C to the consolidated financial statements, Alcoa changed its method of accounting for asset retirement obligations in 2003. As discussed in Notes A and E to the consolidated financial statements, Alcoa changed its method of accounting for long-lived asset impairments and goodwill and other intangible assets in 2002.

### Internal control over financial reporting

Also, in our opinion, management's assessment, included in the accompanying Management's Report on Internal Control over Financial Reporting, that Alcoa maintained effective internal control over financial reporting as of December 31, 2004 based on criteria established in *Internal Control – Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO), is fairly stated, in all material respects, based on those criteria. Furthermore, in our opinion, Alcoa maintained, in all material respects, effective internal control over financial reporting as of December 31, 2004, based on criteria established in *Internal Control – Integrated Framework* issued by the COSO. Alcoa's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting. Our responsibility is to express opinions on management's assessment and on the effectiveness of Alcoa's internal control over financial reporting based on our audit. We conducted our audit of internal control over financial reporting in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. An audit of internal control over financial reporting includes obtaining an understanding of internal control over financial reporting, evaluating management's assessment, testing and evaluating the design and operating effectiveness of internal control, and performing such other procedures as we consider necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinions.

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.



Pittsburgh, Pennsylvania  
February 18, 2005

**Statement of Consolidated Income**  
(in millions, except per-share amounts)

Alcoa and subsidiaries

For the year ended December 31

	2004	2003	2002
Sales (A and Q)	\$23,478	\$21,092	\$19,934
Cost of goods sold	18,623	16,754	15,928
Selling, general administrative, and other expenses	1,284	1,250	1,108
Research and development expenses	182	190	209
Provision for depreciation, depletion, and amortization (A and E)	1,204	1,175	1,096
Restructuring and other charges (D)	(21)	(27)	414
Interest expense (V)	270	314	350
Other income, net (O)	(268)	(274)	(178)
	<u>21,274</u>	<u>19,382</u>	<u>18,927</u>
Income from continuing operations before taxes on income	2,204	1,710	1,007
Provision for taxes on income (T)	557	417	317
	<u>1,647</u>	<u>1,293</u>	<u>690</u>
Income from continuing operations before minority interests' share	1,647	1,293	690
Less: Minority interests' share	245	238	172
	<u>1,402</u>	<u>1,055</u>	<u>518</u>
Income from continuing operations	1,402	1,055	518
Loss from discontinued operations (B)	(92)	(70)	(132)
Cumulative effect of accounting change (C and E)	—	(47)	34
	<u>1,310</u>	<u>938</u>	<u>420</u>
<b>Net Income</b>	<b>\$ 1,310</b>	<b>\$ 938</b>	<b>\$ 420</b>
<b>Earnings (loss) per Share (S)</b>			
Basic:			
Income from continuing operations	\$ 1.61	\$ 1.23	\$ .61
Loss from discontinued operations	(.11)	(.08)	(.16)
Cumulative effect of accounting change	—	(.06)	.04
	<u>1.50</u>	<u>1.09</u>	<u>.49</u>
Net income	\$ 1.50	\$ 1.09	\$ .49
Diluted:			
Income from continuing operations	\$ 1.60	\$ 1.22	\$ .61
Loss from discontinued operations	(.11)	(.08)	(.16)
Cumulative effect of accounting change	—	(.06)	.04
	<u>1.49</u>	<u>1.08</u>	<u>.49</u>
Net income	\$ 1.49	\$ 1.08	\$ .49

The accompanying notes are an integral part of the consolidated financial statements.



**Consolidated Balance Sheet**

Alcoa and subsidiaries

(in millions)

December 31

2004

2003

**Assets**

## Current assets:

Cash and cash equivalents (X)	\$ 457	\$ 576
Receivables from customers, less allowances: 2004-\$87; 2003-\$ 102	2,738	2,492
Other receivables	261	351
Inventories (G)	2,968	2,505
Deferred income taxes (T)	279	266
Prepaid expenses and other current assets	790	493

## Total current assets

7,493 6,683

Properties, plants, and equipment, net (H)

12,592 12,500

Goodwill (E and F)

6,541 6,443

Investments (I)

2,066 2,005

Other assets (E and J)

3,707 3,288

Assets held for sale (B)

210 792

**Total Assets****\$32,609 \$31,711****Liabilities**

## Current liabilities:

Short-term borrowings (K and X)	\$ 267	\$ 50
Commercial paper (K and X)	630	—
Accounts payable, trade	2,226	1,958
Accrued compensation and retirement costs	1,021	948
Taxes, including taxes on income	1,019	737
Other current liabilities	1,078	866
Long-term debt due within one year (K and X)	57	523

## Total current liabilities

6,298 5,082

Long-term debt, less amount due within one year (K and X)

5,346 6,693

Accrued pension benefits (W)

1,513 1,568

Accrued postretirement benefits (W)

2,150 2,220

Other noncurrent liabilities and deferred credits (L)

1,727 1,820

Deferred income taxes (T)

790 815

Liabilities of operations held for sale (B)

69 98

## Total liabilities

17,893 18,296

**Minority Interests (M)****1,416 1,340**

## Commitments and Contingencies (N)

**Shareholders' Equity**

Preferred stock (R)	55	55
Common stock (R)	925	925
Additional capital	5,775	5,831
Retained earnings	8,636	7,850
Treasury stock, at cost	(1,926)	(2,017)
Accumulated other comprehensive loss	(165)	(569)

## Total shareholders' equity

13,300 12,075

**Total Liabilities and Equity****\$32,609 \$31,711**

The accompanying notes are an integral part of the consolidated financial statements.

**Statement of Consolidated Cash Flows**  
(in millions)

Alcoa and subsidiaries

For the year ended December 31

	2004	2003	2002
<b>Cash from Operations</b>			
Net income	\$ 1,310	\$ 938	\$ 420
Adjustments to reconcile net income to cash from operations:			
Depreciation, depletion, and amortization	1,212	1,184	1,104
Change in deferred income taxes	(95)	128	(167)
Equity income, net of dividends	(54)	(94)	(40)
Noncash restructuring and other charges (D)	(21)	(27)	414
Net gain on early retirement of debt and interest rate swap settlements (K)	(58)	—	—
Gains from investing activities—sale of assets (O)	(44)	(37)	(52)
Provision for doubtful accounts	24	11	16
Loss from discontinued operations (B)	92	70	132
Accounting changes (C and E)	—	47	(34)
Minority interests	245	238	172
Other	80	116	8
Changes in assets and liabilities, excluding effects of acquisitions and divestitures:			
(Increase) reduction in receivables	(95)	(144)	380
(Increase) reduction in inventories	(395)	94	148
(Increase) reduction in prepaid expenses and other current assets	(94)	58	38
Increase (reduction) in accounts payable and accrued expenses	122	(164)	(256)
Increase (reduction) in taxes, including taxes on income	113	(247)	(199)
Cash paid on early retirement of debt and interest rate swap settlements (K)	(52)	—	—
Cash received on long-term aluminum supply contract	—	440	—
Net change in noncurrent assets and liabilities	(240)	(256)	(182)
Reduction in net assets held for sale	148	81	33
	<u>2,198</u>	<u>2,436</u>	<u>1,935</u>
<b>Cash provided from (used for) discontinued operations</b>	<u>1</u>	<u>(2)</u>	<u>(91)</u>
<b>Cash from operations</b>	<u>2,199</u>	<u>2,434</u>	<u>1,844</u>
<b>Financing Activities</b>			
Net changes to short-term borrowings	213	12	(384)
Common stock issued for stock compensation plans	83	98	55
Repurchase of common stock	(67)	—	(224)
Dividends paid to shareholders	(524)	(516)	(509)
Dividends paid to minority interests	(119)	(207)	(197)
Net change in commercial paper	630	(665)	445
Additions to long-term debt	180	387	1,636
Payments on long-term debt	(1,921)	(823)	(231)
	<u>(1,525)</u>	<u>(1,714)</u>	<u>591</u>
<b>Investing Activities</b>			
Capital expenditures	(1,142)	(863)	(1,264)
Capital expenditures of discontinued operations	(1)	(7)	(9)
Acquisitions, net of cash acquired (F and P)	(2)	(9)	(1,253)
Proceeds from the sale of assets	392	164	127
Additions to investments	(69)	(11)	(112)
Sale of investments (F)	—	129	—
Changes in short-term investments	30	19	(54)
Changes in minority interests	(5)	—	26
Other	(5)	52	(8)
	<u>(802)</u>	<u>(526)</u>	<u>(2,547)</u>
<b>Effect of exchange rate changes on cash</b>	<u>9</u>	<u>38</u>	<u>(56)</u>
Net change in cash and cash equivalents	(119)	232	(168)
Cash and cash equivalents at beginning of year	576	344	512
<b>Cash and cash equivalents at end of year</b>	<u>\$ 457</u>	<u>\$ 576</u>	<u>\$ 344</u>

The accompanying notes are an integral part of the consolidated financial statements.

**Statement of Shareholders' Equity**  
(in millions, except per-share amounts)

Alcoa and subsidiaries

December 31	Comprehensive income	Preferred stock	Common stock	Additional capital	Retained earnings	Treasury stock	Accumulated other compre- hensive loss	Total shareholders' equity
<b>Balance at end of 2001</b>		\$ 56	\$ 925	\$ 6,114	\$ 7,517	\$(2,706)	\$ (1,292)	\$ 10,614
Comprehensive loss—2002:								
Net income—2002	\$ 420				420			420
Other comprehensive income (loss):								
Change in minimum pension liability, net of \$421 tax benefit	(851)							
Unrealized translation adjustments	309							
Unrealized losses on available-for-sale securities, net of \$13 tax benefit	(25)							
Unrecognized gains on derivatives, net of tax and minority interests of \$(106) (X):								
Net change from periodic revaluations	60							
Net amount reclassified to income	45							
Net unrecognized gains on derivatives	105							
Comprehensive loss	\$ (42)						(462)	(462)
Cash dividends:								
Preferred @ \$3.75 per share					(2)			(2)
Common @ \$ .60 per share					(507)			(507)
Treasury shares purchased		(1)				(224)		(225)
Stock issued: compensation plans				(13)		102		89
<b>Balance at end of 2002</b>		55	925	6,101†	7,428	(2,828)	(1,754)	9,927
Comprehensive income—2003:								
Net income—2003	\$ 938				938			938
Other comprehensive income (loss):								
Change in minimum pension liability, net of \$21 tax benefit	(39)							
Unrealized translation adjustments	818							
Unrealized gains on available-for-sale securities, net of \$183 tax expense (X)	340							
Unrecognized gains/(losses) on derivatives, net of tax and minority interests of \$(53) (X):								
Net change from periodic revaluations	115							
Net amount reclassified to income	(49)							
Net unrecognized gains on derivatives	66							
Comprehensive income	\$ 2,123						1,185	1,185
Cash dividends:								
Preferred @ \$3.75 per share					(2)			(2)
Common @ \$ .60 per share					(514)			(514)
Stock issued: Alcoa Aluminio minority interest acquisition (F)				(193)		603		410
Stock issued: compensation plans				(77)		208		131
<b>Balance at end of 2003</b>		55	925	5,831†	7,850	(2,017)	(569)	12,075
Comprehensive income—2004:								
Net income—2004	\$ 1,310				1,310			1,310
Other comprehensive income (loss):								
Change in minimum pension liability, net of \$11 tax benefit	(21)							
Unrealized translation adjustments	535							
Unrealized losses on available-for-sale securities, net of \$51 tax benefit (X)	(94)							
Unrecognized gains/(losses) on derivatives, net of tax and minority interests of \$34 (X):								
Net change from periodic revaluations	120							
Net amount reclassified to income	(136)							
Net unrecognized losses on derivatives	(16)							
Comprehensive income	\$ 1,714						404	404

Cash dividends:	Preferred @ \$3.75 per share			(2)			(2)	
	Common @ \$ .60 per share			(522)			(522)	
Stock issued: compensation plans			(56)		91		35	
<b>Balance at end of 2004</b>		\$ 55	\$ 925	\$ 5,775†	\$ 8,636	\$(1,926)	\$ (165)*	\$ 13,300

\* Comprised of unrealized translation adjustments of \$535, minimum pension liability of \$(972), unrealized gains on available-for-sale securities of \$221, and unrecognized gains/(losses) on derivatives of \$51, net of tax

† Includes stock to be issued under options of \$96 in 2004, \$130 in 2003, and \$130 in 2002

The accompanying notes are an integral part of the consolidated financial statements.

**Notes to the Consolidated  
Financial Statements**

(dollars in millions, except per-share amounts)

**A. Summary of Significant Accounting Policies**

**Basis of Presentation.** The Consolidated Financial Statements are prepared in conformity with accounting principles generally accepted in the United States of America and require management to make certain estimates and assumptions. These may affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the financial statements. They also may affect the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates upon subsequent resolution of identified matters.

**Principles of Consolidation.** The Consolidated Financial Statements include the accounts of Alcoa and companies more than fifty percent owned. Intercompany transactions have been eliminated. Investments in affiliates and other joint ventures in which Alcoa has a noncontrolling ownership interest between twenty and fifty percent are accounted for on the equity method. Investments in affiliates in which Alcoa has an ownership interest less than twenty percent are accounted for on the cost method.

Alcoa also evaluates consolidation of entities under Financial Accounting Standards Board Interpretation No. 46, "Consolidation of Variable Interest Entities" (FIN 46). FIN 46 requires management to evaluate whether an entity is a variable interest entity and whether Alcoa is the primary beneficiary. Consolidation is required if both of these criteria are met. Alcoa does not have any variable interest entities requiring consolidation.

**Cash Equivalents.** Cash equivalents are highly liquid investments purchased with an original maturity of three months or less.

**Inventory Valuation.** Inventories are carried at the lower of cost or market, with cost for a substantial portion of U.S. and Canadian inventories determined under the last-in, first-out (LIFO) method. The cost of other inventories is principally determined under the average-cost method. See Note G for additional information.

**Properties, Plants, and Equipment.** Properties, plants, and equipment are recorded at cost. Depreciation is recorded principally on the straight-line method at rates based on the estimated useful lives of the assets, averaging 33 years for structures and approximately 16 years for machinery and equipment, as useful lives range between 5 and 25 years. Gains or losses from the sale of assets are included in other income. Repairs and maintenance are charged to expense as incurred. Interest related to the construction of qualifying assets is capitalized as part of the construction costs. Depletion is taken over the periods during which the estimated mineral reserves are extracted. See Notes H and V for additional information.

**Goodwill and Other Intangible Assets.** Alcoa adopted Statement of Financial Accounting Standards (SFAS) No. 142, "Goodwill and Other Intangible Assets," effective January 1, 2002. Under this standard, goodwill and intangibles with indefinite useful lives are no longer amortized. Intangible assets with finite useful lives are amortized generally on a straight-line basis over the periods benefited, with a weighted average useful life of 13 years.

The carrying values of goodwill and other intangible assets with indefinite useful lives are tested at least annually for impairment. If the carrying value of goodwill or an intangible asset exceeds its fair value, an impairment loss is recognized. The evaluation of impairment involves comparing the current fair value of the business to the recorded value (including goodwill). The company uses a discounted cash flow model (DCF model) to determine the current fair value of the business. A number of significant assumptions and estimates are involved in the application of the DCF model to forecast operating cash flows, including markets and market share, sales volumes and prices, costs to produce, and working capital changes. Management considers historical experience and all available information at the time the fair values of its businesses are estimated. However, actual fair values that could be realized in an actual transaction may differ from those used to evaluate the impairment of goodwill. See Note E for additional information.

**Accounts Payable Arrangements.** Alcoa participates in computerized payable settlement arrangements with certain vendors and third-party intermediaries. The arrangements provide that, at the vendor's request, the third-party intermediary advances the amount of the scheduled payment to the vendor, less an appropriate discount, before the scheduled payment date. Alcoa makes payment to the third-party intermediary on the date stipulated in accordance with the commercial terms negotiated with its vendors. The amounts outstanding under these arrangements that will be paid through the third-party intermediaries have been classified as short-term borrowings in the Consolidated Balance Sheet at December 31, 2004 and as cash provided from financing activities in the Statement of Consolidated Cash Flows at December 31, 2004. See Note K for additional information.

**Revenue Recognition.** Alcoa recognizes revenue when title, ownership, and risk of loss pass to the customer, in accordance with the provisions of Staff Accounting Bulletin 104, "Revenue Recognition in Financial Statements."

Alcoa periodically enters into long-term supply contracts with alumina and aluminum customers and receives advance payments for product to be delivered in future periods. These advance payments are recorded as deferred revenue, and revenue is recognized as shipments are made and title, ownership, and risk of loss pass to the customer during the term of the contracts.

**Environmental Expenditures.** Expenditures for current operations are expensed or capitalized, as appropriate. Expenditures relating to existing conditions caused by past operations, and which do not contribute to future revenues, are expensed. Liabilities are recorded when remedial efforts are probable and the costs can be reasonably estimated. The liability may include costs such as site investigations, consultant fees, feasibility studies, outside contractor, and monitoring expenses. Estimates are generally not discounted or reduced by potential claims for recovery. Claims for recovery are recognized as agreements are reached with third parties. The estimates also

include costs related to other potentially responsible parties to the extent that Alcoa has reason to believe such parties will not fully pay their proportionate share. The liability is periodically reviewed and adjusted to reflect current remediation progress, prospective estimates of required activity, and other factors that may be relevant, including changes in technology or regulations. See Note Y for additional information.

**Income Taxes.** The provision for income taxes is determined using the asset and liability approach of accounting for income taxes in accordance with SFAS No. 109 "Accounting for Income Taxes." Under this approach, deferred taxes represent the future tax consequences expected to occur when the reported amounts of assets and liabilities are recovered or paid. The provision for income taxes represents income taxes paid or payable for the current year plus the change in deferred taxes during the year. Deferred taxes result from differences between the financial and tax bases of Alcoa's assets and liabilities and are adjusted for changes in tax rates and tax laws when changes are enacted. Valuation allowances are recorded to reduce deferred tax assets when it is more likely than not that a tax benefit will not be realized. Alcoa also has unamortized tax deductible goodwill resulting from intercompany stock sales and reorganizations. Alcoa recognizes the tax benefits associated with this tax deductible goodwill as it is being amortized for local income tax purposes rather than in the period in which the transaction is consummated.

**Stock-Based Compensation.** Alcoa accounts for stock-based compensation in accordance with the provisions of Accounting Principles Board Opinion No. 25, "Accounting for Stock Issued to Employees," and related interpretations using the intrinsic value method, which resulted in no compensation cost for options granted.

Alcoa's net income and earnings per share would have been reduced to the pro forma amounts shown below if compensation cost had been determined based on the fair value at the grant dates in accordance with SFAS Nos. 123 and 148, "Accounting for Stock-Based Compensation."

	2004	2003	2002
Net income, as reported	\$ 1,310	\$ 938	\$ 420
Less: compensation cost determined under the fair value method, net of tax	35	30	113
<b>Pro forma net income</b>	<b>\$ 1,275</b>	<b>\$ 908</b>	<b>\$ 307</b>
<b>Basic earnings per share:</b>			
As reported	\$ 1.50	\$ 1.09	\$ .49
Pro forma	1.46	1.06	.36
<b>Diluted earnings per share:</b>			
As reported	1.49	1.08	.49
Pro forma	1.45	1.06	.36

In addition to stock option awards described above, beginning in 2004 the company granted stock awards and performance share awards that vest in three years from the date of grant. Compensation expense for stock awards is calculated based on the fair value at the grant date, and compensation expense for performance share awards is based on the fair value on the date the performance criteria is determined. The after-tax expense recognized on these awards in 2004 was \$9.

The fair value of each option is estimated on the date of grant or subsequent reload using the Black-Scholes pricing model with the following assumptions:

	2004	2003	2002
Average risk-free interest rate	2.1%	2.2%	3.5%
Expected dividend yield	1.6	2.5	2.1
Expected volatility	32	38	42
Expected life (years):			
New option grants	3.0	3.0	3.0
Reload option grants	3.0	2.5	2.5

The weighted average fair value per option granted was \$7.72 in 2004, \$5.75 in 2003, and \$9.96 in 2002. See Note R for additional information.

**Derivatives and Hedging.** Derivatives are held as part of a formally documented risk management program. All derivatives are straight-forward and are held for purposes other than trading. For derivatives designated as fair value hedges, Alcoa measures hedge effectiveness by formally assessing, at least quarterly, the historical high correlation of changes in the fair value of the hedged item and the derivative hedging instrument. For derivatives designated as cash flow hedges, Alcoa measures hedge effectiveness by formally assessing, at least quarterly, the probable high correlation of the expected future cash flows of the hedged item and the derivative hedging instrument. The ineffective portions of both types of hedges are recorded in sales or other income in the current period. A loss of \$18 was recorded in 2004 for the ineffective portion of these hedges. If the hedging relationship ceases to be highly effective or it becomes probable that an expected transaction will no longer occur, future gains or losses on the derivative are recorded in other income or expense. Two interest rate swaps ceased to qualify as hedges in 2004 due to the restructuring of debt and were terminated. See Notes K and X for additional information. No other hedging transactions ceased to qualify as hedges.

Alcoa accounts for interest rate swaps related to its existing long-term debt and hedges of firm customer commitments for aluminum as fair value hedges. As a result, the fair values of derivatives and changes in the fair values of the underlying hedged items are reported in other current and noncurrent assets and liabilities in the Consolidated Balance Sheet. Changes in the fair values of these derivatives and underlying hedged items generally offset and are recorded each period in sales or interest expense, consistent with the underlying hedged item.

Alcoa accounts for hedges of foreign currency exposures and certain forecasted transactions, principally purchases of natural gas, as cash flow hedges. The fair values of the derivatives are recorded in other current and noncurrent assets and liabilities in the Consolidated Balance Sheet. The effective portions of the changes in the fair values of these derivatives are recorded in other comprehensive income and are reclassified to sales, cost of goods sold, or other income in the period in which earnings are impacted by the hedged items or in the period that the transaction no longer qualifies as a cash flow hedge. These contracts cover the same periods as known or expected exposures, generally within three years. Assuming market rates remain constant with the rates at December 31, 2004, \$39 of the \$51 gain included in other comprehensive income is expected to be recognized in earnings over the next 12 months.

If no hedging relationship is designated, the derivative is marked to market through earnings.

Cash flows from financial instruments are recognized in the Statement of Consolidated Cash Flows in a manner consistent with the underlying transactions. See Notes K and X for additional information.

**Foreign Currency.** The local currency is the functional currency for Alcoa's significant operations outside the U.S., except in Canada, where the U.S. dollar is used as the functional currency. The determination of the functional currency for Alcoa's operations is made based on the appropriate economic and management indicators.

**Acquisitions.** Alcoa's acquisitions are accounted for using the purchase method. The purchase price is allocated to the assets acquired and liabilities assumed based on their estimated fair market values. Any excess purchase price over the fair market value of the net assets acquired is recorded as goodwill. For all acquisitions, operating results are included in the Statement of Consolidated Income since the dates of the acquisitions. See Note F for additional information.

**Discontinued Operations and Assets Held For Sale.** Alcoa adopted SFAS No. 144, "Accounting for the Impairment or Disposal of Long-Lived Assets," effective January 1, 2002. This standard establishes accounting and reporting requirements for the impairment or disposal of long-lived assets. For those businesses where management has committed to a plan to divest, each business is valued at the lower of its carrying amount or estimated fair value less cost to sell. If the carrying amount of the business exceeds its estimated fair value, a loss is recognized. The fair values are estimated using accepted valuation techniques such as a DCF model, earnings multiples, or indicative bids, when available. A number of significant estimates and assumptions are involved in the application of these techniques, including the forecasting of markets and market share, sales volumes and prices, costs and expenses, and multiple other factors. Management considers historical experience and all available information at the time the estimates are made; however, the fair values that are ultimately realized upon the sale of the businesses to be divested may differ from the estimated fair values reflected in the financial statements.

Businesses to be divested are classified in the Consolidated Financial Statements as either discontinued operations or assets held for sale. For businesses classified as discontinued operations, the balance sheet amounts and income statement results are reclassified from their historical presentation to assets and liabilities of operations held for sale on the Consolidated Balance Sheet and to discontinued operations in the Statement of Consolidated Income for all periods presented. The Statement of Consolidated Cash Flows is also reclassified for assets held for sale and discontinued operations for all periods presented. Additionally, segment information does not include the results of businesses classified as discontinued operations. Management does not expect any continuing involvement with these businesses following the sales, and these businesses are expected to be disposed of within one year.

For businesses classified as assets held for sale, the balance sheet and cash flow amounts are reclassified from their historical presentation to assets and liabilities of operations held for sale. The income statement results continue to be reported in the historical income statement categories as income from continuing operations. The segment results include the results of businesses classified as assets held for sale for all periods presented. Management expects that Alcoa will have continuing involvement with these businesses following the sale, primarily in the form of ongoing aluminum or other significant supply contracts.

**Recently Issued Accounting Standards.** SFAS No. 123 (revised 2004) "Share-Based Payment" was issued in December 2004. This standard requires companies to measure and recognize the cost of employee services received in exchange for an award of equity instruments based on the grant-date fair value. The effective date is the first interim reporting period beginning after June 15, 2005. Alcoa is currently evaluating pricing models and the transition provisions of this standard and will begin expensing stock options in the third quarter of 2005.

In November 2004, the Financial Accounting Standards Board (FASB) issued SFAS No. 151, "Inventory Costs – an Amendment of ARB No. 43, Chapter 4." This standard provides clarification that abnormal amounts of idle facility expense, freight, handling costs, and spoilage should be recognized as current-period charges. Additionally, this standard requires that allocation of fixed production overheads to the costs of conversion be based on the normal capacity of the production facilities. The provisions of this standard are effective for inventory costs incurred during fiscal years beginning after June 15, 2005. This standard does not have a material impact to Alcoa's financial statements.

**Reclassification.** Certain amounts in previously issued financial statements were reclassified to conform to 2004 presentations. See Note B for further information.

## **B. Discontinued Operations and Assets Held for Sale**

Alcoa's financial statements for all periods presented were significantly impacted by activities relating to the planned divestiture of a number of Alcoa's businesses.

In 2002, Alcoa performed a portfolio review of its businesses and the markets they serve. As a result of this review, Alcoa committed to a plan to divest certain noncore businesses that did not meet internal growth and return measures. This plan was substantially completed in 2004 with the divestitures of the following businesses: specialty chemicals, packaging equipment, automotive fasteners, South American flexible packaging, foil facilities in Russellville, AR and St. Louis, MO, and extrusion facilities in Europe and Brazil. See Note F for additional details.

In the second quarter of 2004, certain architectural products businesses in North America were reclassified from assets held for sale to assets held and used as management discontinued the plan of sale due to market conditions. The financial statements for prior periods have been reclassified to reflect this change. The reclassification did not impact the Statement of Consolidated Income, and the results of operations of these architectural products businesses continue to be presented in the Engineered Products segment.

Also in 2004, Alcoa identified additional businesses to be divested so as to better focus on its core capabilities. As a result, the following businesses have been reclassified from assets held

and used to discontinued operations for all periods presented.

- In the third quarter of 2004, the protective packaging business was reclassified to discontinued operations. A \$16 after-tax impairment charge was recorded to reflect the current estimated fair value of the business. The results of the Packaging and Consumer segment have been reclassified to reflect the movement of this business into discontinued operations.
- In the fourth quarter of 2004, the telecommunications business and a small casting business in the U.K. were reclassified to discontinued operations. Impairment charges of \$63 (after tax and minority interests) for the telecommunications business and \$10 (after tax and minority interests) for the casting business were recorded to reflect the current estimated fair values of these businesses. The results of the Other group have been reclassified to reflect the movement of these businesses into discontinued operations.

The following table details selected financial information for the businesses included within discontinued operations in the Statement of Consolidated Income.

	2004	2003	2002
Sales	\$ 482	\$ 636	\$ 685
Loss from operations	(14)	(47)	(153)
Gain on sale of businesses	8	—	—
Loss from impairment	(153)	(69)	(91)
Pre-tax loss	(159)	(116)	(244)
Benefit for taxes	24	39	75
Minority interests	43	7	37
Loss from discontinued operations	\$ (92)	\$ (70)	\$(132)

The loss of \$92 in discontinued operations in 2004 was comprised of impairment losses of \$89 to reflect the current estimated fair values on businesses to be divested as described above, \$8 of net operating losses of these businesses, and a net gain of \$5 on businesses sold in 2004. The loss of \$70 in discontinued operations in 2003 was comprised of an impairment loss of \$45 related to the reduction in the estimated fair value of the automotive fasteners business and \$25 of operating losses. The loss of \$132 in discontinued operations in 2002 was comprised of an impairment loss of \$59 to reduce the carrying values of certain businesses to be divested to their estimated fair values less costs to sell, \$53 of operating losses, and \$20 for the impairment of goodwill in the telecommunications business.

The major classes of assets and liabilities of operations held for sale in the Consolidated Balance Sheet are as follows:

December 31	2004	2003
<b>Assets:</b>		
Receivables	\$ 98	\$181
Inventories	44	161
Properties, plants, and equipment, net	42	371
Other assets	26	79
Total assets held for sale	\$210	\$792
<b>Liabilities:</b>		
Accounts payable and accrued expenses	\$ 54	\$ 52
Other liabilities	15	46
Total liabilities of operations held for sale	\$ 69	\$ 98

For all of the businesses to be divested, the fair values were estimated utilizing accepted valuation techniques. The fair values that are ultimately realized upon the sale of the businesses to be divested may differ from the estimated fair values reflected in the financial statements.

### C. Asset Retirement Obligations

Effective January 1, 2003, Alcoa adopted SFAS No. 143, "Accounting for Asset Retirement Obligations." Under this standard, Alcoa recognized additional liabilities, at fair value, of approximately \$136 at January 1, 2003, for asset retirement obligations (AROs), consisting primarily of costs associated with spent pot lining disposal, bauxite residue disposal, mine reclamation, and landfills. These costs reflect the legal obligations associated with the normal operation of Alcoa's bauxite mining, alumina refining, and aluminum smelting facilities. Alcoa had previously recorded liabilities for certain of these costs. Additionally, Alcoa capitalized asset retirement costs by increasing the carrying amount of related long-lived assets, primarily machinery and equipment, and recorded associated accumulated depreciation from the time the original assets were placed into service. At January 1, 2003, Alcoa increased the following: net properties, plants, and equipment by \$74; net deferred tax assets by \$22; liabilities by \$136 as noted above; and minority interests by \$7.

The cumulative effect adjustment recognized upon adoption of this standard was \$47, consisting primarily of costs to establish assets and liabilities related to spent pot lining disposal for pots currently in operation. Net income for the full year of 2002 would not have been materially different if this standard had been adopted effective January 1, 2002.

The changes in the carrying amount of AROs for the years ended December 31, 2004 and 2003 follow.

December 31	2004	2003
Balance at beginning of year	\$217	\$224
Accretion expense	15	16
Payments	(25)	(27)
Liabilities incurred	30	8
Translation and other	(4)	(4)



Balance at end of year	\$233	\$217
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In addition to the AROs discussed above, Alcoa may have other obligations in the event of a permanent plant shutdown. However, these plant assets have indeterminate lives and, therefore, the associated AROs are not reasonably estimable and liabilities cannot be established.

#### D. Restructuring and Other Charges

Restructuring and other charges for each of the three years in the period ended December 31, 2004, were comprised of:

<u>December 31</u>	<u>2004</u>	<u>2003</u>	<u>2002</u>
Asset write-downs	\$ 6	\$ —	\$292
Layoff costs	41	44	104
Other costs	—	—	25
Sale of specialty chemicals business	(53)	—	—
Net additions to/(reversals) of prior year layoff and other costs*	(15)	(38)	(7)
Net additions to/(reversals) of prior year gains/losses on assets held for sale	—	(33)	—
	<u>—</u>	<u>—</u>	<u>—</u>
Restructuring and other charges	\$ (21)	\$ (27)	\$414

\* Reversals of prior year layoff and other costs resulted from changes in facts and circumstances that led to changes in estimated costs.

During 2004, Alcoa recorded income of \$21 (\$41 after tax and minority interests) for restructuring and other items. The income recognized was comprised of the following components: a gain of \$53 (\$61 after tax and minority interests) on the sale of Alcoa's specialty chemicals business and \$15 resulting from adjustments to prior year reserves; offset by charges of \$41 related to additional layoff reserves associated with approximately 4,100 hourly and salaried employees (located primarily in Mexico and the U.S.), as the company continued to focus on reducing costs, and \$6 of asset write-downs.

As of December 31, 2004, approximately 3,700 of the 4,100 employees had been terminated, and cash payments of approximately \$22 were made against the reserves.

Restructuring and other charges consisted of income of \$27 (\$25 after tax and minority interests) in 2003. The income was comprised of: \$33 of net favorable adjustments on assets held for sale; \$38 of income resulting from adjustments to prior year layoff reserves; and \$44 of charges for additional layoff costs associated with approximately 1,600 hourly and salaried employees located primarily in Europe, the U.S., and Brazil, as the company continued to focus on cost reductions in businesses that continued to be impacted by market declines. The 2003 restructuring program is essentially complete.

During 2002, Alcoa recorded restructuring and other charges of \$414 (\$272 after tax and minority interests) for restructurings associated with the curtailment of aluminum production at three smelters, as well as restructuring operations for those businesses experiencing negligible growth due to continued market declines and the decision to divest certain businesses that have failed to meet internal growth and return measures.

The 2002 charges were comprised of the following components: \$104 of charges for employee termination and severance costs associated with approximately 6,700 salaried and hourly employees at over 70 locations, primarily in Mexico, Europe, and the U.S.; \$292 related to asset write-downs, consisting of \$113 of goodwill on businesses to be divested, as well as \$179 for structures, machinery, and equipment; and \$25 for exit costs, primarily for remediation and demolition costs, as well as lease termination costs. Additionally, net reversals of \$7 were recorded in 2002, primarily associated with adjustments to 2001 restructuring program reserves due to changes in estimates of liabilities resulting from lower than expected costs. The 2002 restructuring program is essentially complete.

Activity and reserve balances related to restructuring charges in 2002, 2003, and 2004 are as follows:

	Employee termination and severance costs	Other exit costs	Total
Reserve balance at December 31, 2001	\$ 142	\$ 92	\$ 234
<b>2002:</b>			
Cash payments	(74)	(30)	(104)
2002 restructuring charges	104	25	129
Net changes to 2001 restructuring reserves	(11)	(3)	(14)
Reserve balances at December 31, 2002	\$ 161	\$ 84	\$ 245
<b>2003:</b>			
Cash payments	(120)	(27)	(147)
2003 restructuring charges	44	—	44
Additions to/(reversals) of 2002 restructuring charges	(38)	(9)	(47)
Reserve balances at December 31, 2003	\$ 47	\$ 48	\$ 95
<b>2004:</b>			
Cash payments	(52)	(5)	(57)
2004 restructuring charges	41	—	41
Reversals of 2003 restructuring charges	(11)	(4)	(15)
Reserve balances at December 31, 2004	\$ 25	\$ 39	\$ 64

## E. Goodwill and Other Intangible Assets

The following table details the changes in the carrying amount of goodwill.

December 31	2004	2003
Balance at beginning of year	\$6,443	\$6,282
Additions during the period	24	75
Translation and other adjustments	74	86
Balance at end of year	\$6,541	\$6,443

The increase in goodwill of \$24 during 2004 was due primarily to adjustments to preliminary purchase price allocations from prior periods, which had a \$13 impact on the Engineered Products segment and an \$11 impact on corporate.

The increase in goodwill of \$75 during 2003 was due primarily to the acquisition of the remaining 40.9% interest in Alcoa Aluminio, as well as adjustments to preliminary purchase price allocations from prior periods. See Note F for additional information. The impact to the segments follows: Engineered Products \$40 and the Other group \$(17). The impact to corporate was \$52.

Upon adoption of SFAS No. 142 on January 1, 2002, Alcoa recognized a cumulative effect adjustment of \$34 (after tax) consisting of income from the write-off of negative goodwill from prior acquisitions of \$49, offset by a \$15 write-off for the impairment of goodwill in the automotive business resulting from a change in criteria for the measurement of fair value under SFAS No. 142 from an undiscounted to a discounted cash flow method. In the fourth quarter of 2002, Alcoa recorded an impairment charge of \$44 for goodwill associated with its operations serving the telecommunications market due to lower than expected projected operating profits and cash flows. This amount was recorded in discontinued operations.



The following table details other intangible assets.

	2004		2003	
	Gross carrying amount	Accumulated amortization	Gross carrying amount	Accumulated amortization
Computer software	\$ 464	\$ (218)	\$ 336	\$ (169)
Patents and licenses	157	(70)	154	(57)
Other intangibles	491	(148)	471	(126)
<b>Total amortizable intangible assets</b>	<b>1,112</b>	<b>(436)</b>	<b>961</b>	<b>(352)</b>
Indefinite-lived trade names and trademarks	176	—	179	—
<b>Total other intangible assets</b>	<b>\$1,288</b>	<b>\$ (436)</b>	<b>\$1,140</b>	<b>\$ (352)</b>

Computer software costs consisted primarily of software costs associated with an enterprise business solution (EBS) within Alcoa to drive common systems among all businesses. The increase in the balance in 2004 is attributed to continued implementation of EBS across the company. Other intangibles consisted primarily of customer relationship intangibles.

Amortization expense for intangible assets for the years ended December 31, 2004, 2003, and 2002 was \$81, \$84, and \$67, respectively. Amortization expense is expected to be in the range of approximately \$72 to \$80 annually from 2005 to 2009.

#### F. Acquisitions and Divestitures

In 2004, Alcoa substantially completed its 2002 plan to divest certain noncore businesses, as outlined below:

In the first quarter of 2004, Alcoa completed the sale of its specialty chemicals business to two private equity firms led by Rhone Capital LLC for an enterprise value of \$342, which included the assumption of debt and other obligations. Alcoa received cash of \$248 and recognized a pre-tax, pre-minority interest gain of approximately \$53 (\$61 after tax and minority interests) in restructuring and other charges in the Statement of Consolidated Income.

Additionally, in the first quarter of 2004, Alcoa sold two businesses that were included in discontinued operations: the packaging equipment business was sold for \$44 in cash and resulted in the recognition of an after-tax gain of \$10, and the automotive fasteners business was sold for \$17 in cash and notes receivable and resulted in an additional after-tax loss of \$5.

During the second quarter of 2004, Alcoa sold its Russellville, AR and St. Louis, MO foil facilities and an extrusion facility in Europe for \$37 in cash. Alcoa also sold its flexible packaging business in South America, which had been included in discontinued operations. There was no material gain or loss recognized on these transactions.

During the fourth quarter of 2004, Alcoa sold an extrusion facility in Brazil, and no material gain or loss was recorded on the transaction. Alcoa also sold 40% of its interest in the Juruti bauxite project in Brazil to Alumina Limited, its partner in Alcoa World Alumina and Chemicals (AWAC). Alcoa holds 60% of AWAC, and Alumina Limited holds the remaining 40%. In exchange for 40% of Alcoa's interest in the Juruti project, Alumina Limited contributed \$40 to AWAC, and Alcoa realized a gain of \$37 on the transaction.

During 2004, Alcoa completed two acquisitions at a cash cost of \$2. None of these transactions had a material impact on Alcoa's financial statements.

In August of 2003, Alcoa acquired the remaining 40.9% shareholding in Alcoa Aluminio (Aluminio) held by Camargo Correa Group (Camargo Group) since 1984. Alcoa issued to the Camargo Group 17.8 million shares of Alcoa common stock, with a fair value of approximately \$410, in exchange for the Camargo Group's holdings. The agreement also provides for contingent payments over the next five years based on the performance of the South American operations. The maximum amount of contingent payments is \$235. The contingent payments will be reduced by appreciation on the Alcoa shares issued in the transaction, as specified in the agreement. No contingent payments related to this agreement were made in 2004. The final purchase price allocation resulted in goodwill of approximately \$56.

In October of 2003, Alcoa expanded its aluminum alliance with Kobe Steel Ltd. (Kobe) in Japan on the joint development of aluminum products for the automotive market. As part of this arrangement and due to changes in the business environment, Alcoa and Kobe discontinued their association in three can sheet joint ventures: KAAL Australia, KAAL Japan, and KAAL Asia. Based on terms of the agreement, Alcoa acquired from Kobe the remaining 50% interest in KAAL Australia, as well as the remaining 20% interest in KAAL Asia. In turn, Kobe purchased a 47% interest in KAAL Japan from Alcoa. These transactions, which were recorded at fair value, resulted in net cash proceeds to Alcoa of \$9 and recognition of a gain of \$17. Also, Alcoa and Kobe amended an existing aluminum supply agreement related to the KAAL Japan operations, which resulted in an acceleration of the delivery term of the agreement to two years.

In October of 2003, Alcoa completed the sale of its Latin America PET business to Amcor PET Packaging for \$75, which resulted in an immaterial gain on the transaction. Alcoa also sold investments for approximately \$129, comprised primarily of its interest in Latasa, a Latin America aluminum can business.

During 2002, Alcoa completed 15 acquisitions at a cost of \$1,573, of which \$1,253 was paid in cash. The most significant of these transactions were the acquisitions of Ivex Packaging Corporation (Ivex) in July 2002 and Fairchild Fasteners (Fairchild) in December 2002.

The Ivex transaction was valued at approximately \$790, including debt assumed of \$320, and the purchase price allocation resulted in goodwill of approximately \$470. Ivex is part of Alcoa's Packaging and Consumer segment. Alcoa paid \$650 in cash for Fairchild, and the purchase price allocation resulted in goodwill of approximately \$330. In 2004, Alcoa made a contingent payment of approximately \$5 on the Fairchild acquisition

in connection with the achievement of certain 2003 operating targets. Fairchild is part of the Engineered Products segment.

In connection with certain acquisitions made during 2002, Alcoa could be required to make additional payments of approximately \$67 from 2005 through 2006 based upon the achievement of various financial and operating targets.

Pro forma results of the company, assuming all acquisitions had been made at the beginning of each period presented, would not have been materially different from the results reported.

#### G. Inventories

December 31	2004	2003
Finished goods	\$ 913	\$ 742
Work in process	909	787
Bauxite and alumina	456	337
Purchased raw materials	472	429
Operating supplies	218	210
	\$2,968	\$2,505

Approximately 45% of total inventories at December 31, 2004 were valued on a LIFO basis. If valued on an average-cost basis, total inventories would have been \$700 and \$558 higher at the end of 2004 and 2003, respectively.

#### H. Properties, Plants, and Equipment, at Cost

December 31	2004	2003
Land and land rights, including mines	\$ 462	\$ 445
Structures	6,177	5,834
Machinery and equipment	18,004	17,436
	24,643	23,715
Less: accumulated depreciation and depletion	13,273	12,275
	11,370	11,440
Construction work in progress*	1,222	1,060
	\$12,592	\$12,500

\* Project costs associated with EBS are included in this balance, and at December 31, 2004 and 2003, totaled \$231 and \$233, respectively. Upon completion, these software costs are capitalized and recorded as intangible assets.

#### I. Investments

December 31	2004	2003
Equity investments	\$1,517	\$1,346
Other investments	549	659
	\$2,066	\$2,005

Equity investments represent investments in affiliates in which Alcoa has a noncontrolling ownership interest between twenty and fifty percent and are comprised of the following: 46.5% investment in Elkem ASA (Elkem), a Norwegian producer of aluminum; 50% investment in Elkem Aluminium ANS, a joint venture between Alcoa and Elkem that owns and operates two aluminum smelters in Norway; 50% interest in Integrus Metals, Inc., a metals distribution joint venture with BHP Billiton (which was subsequently sold in January 2005); and investments in several hydroelectric power construction projects in Brazil. See Note N for additional information.

The increase in equity investments in 2004 was attributed to higher earnings at Elkem and favorable foreign currency exchange movements.

Other investments are primarily comprised of Alcoa's 8% interest in Aluminum Corporation of China (Chalco). The Chalco investment is classified as an available-for-sale security and is carried at fair value. The decrease in other investments in 2004 was primarily due to a revaluation of the Chalco investment with the offset recorded in accumulated other comprehensive income, slightly offset by an additional investment in Chalco of \$32.

#### J. Other Assets

December 31	2004	2003
Intangibles (E)	\$ 852	\$ 788
Deferred income taxes	1,606	1,343
Prepaid pension benefit (W)	83	108
Deferred charges and other	1,166	1,049
	\$3,707	\$3,288

#### K. Debt

December 31	2004	2003
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Floating-rate notes, due 2004 (1.5% average rate)	\$ —	\$ 467
6.125% Bonds, due 2005	—	200
7.25% Notes, due 2005	—	500
5.875% Notes, due 2006	—	500
4.25% Notes, due 2007	800	800
6.625% Notes, due 2008	150	150
7.375% Notes, due 2010	1,000	1,000
6.5% Notes, due 2011	1,000	1,000
6% Notes, due 2012	1,000	1,000
5.375% Notes, due 2013	600	600
6.5% Bonds, due 2018	250	250
6.75% Bonds, due 2028	300	300
Tax-exempt revenue bonds ranging from 5.7% to 5.9%, due 2007–2031	28	49
Medium-term notes, due 2005–2013 (8.2% and 7.6% average rates)	142	176
Alcoa Aluminio 7.5% Export notes, due 2005–2008	74	89
Fair value adjustments	33	104
Other	26	31
	<u>5,403</u>	<u>7,216</u>
Less: amount due within one year	57	523
	<u>\$5,346</u>	<u>\$6,693</u>

The amount of long-term debt maturing in each of the next five years is \$57 in 2005, \$69 in 2006, \$863 in 2007, \$204 in 2008, and \$33 in 2009.

In 2004, Alcoa retired early \$1,200 of debt securities, consisting of the following: \$200 of 6.125% Bonds due in 2005, \$500 of 7.25% Notes due in 2005, and \$500 of 5.875% Notes due in 2006. These debt securities were retired primarily with proceeds from commercial paper borrowings and cash provided from operations. Alcoa recognized a net gain of \$58 in other income on the early retirement of long-term debt and the associated settlement of interest rate swaps. The net gain of \$58 is comprised of the following:

- a premium paid for early retirement of debt and related expenses of \$67;
- a gain of \$48 from previously settled interest rate swaps that hedged the retired debt and was reflected as an increase in its carrying value; and

- a gain of \$77 from the settlement of interest rate swaps that hedged anticipated borrowings between June 2005 and June 2006. See Note X for additional information.

During 2004, Standard and Poor's Rating Services (S&P) maintained its long-term debt rating of Alcoa at A- and its short-term rating at A-2. In January 2005, S&P revised its debt outlook for Alcoa to negative from stable, citing higher capital expenditures in 2005 and future years. There was no change to either Alcoa's long-term or short-term ratings. Moody's Investors Service long-term debt rating of Alcoa and its rated subsidiaries is A2 and its short-term debt rating of Alcoa is Prime-1.

Commercial paper of \$630 at December 31, 2004 was classified as a current liability, based on a revised interpretation of the existing accounting rules. Commercial paper matures at various times within one year and has an annual weighted average interest rate of 2.3%. Alcoa maintains \$3,000 of revolving-credit agreements with varying expiration dates as backup to its commercial paper program. In April 2004, Alcoa refinanced its \$2,000 revolving-credit agreement that expired in April 2004 into a \$1,000 revolving-credit agreement that will expire in April 2005, with an option to extend the maturity date of any borrowings outstanding on the April 2005 expiration date for one year. Additionally, Alcoa refinanced its \$1,000 revolving-credit agreement that was to expire in April 2005 into a \$1,000 revolving-credit agreement that will expire in April 2009. Alcoa also has a \$1,000 revolving-credit agreement that will expire in April 2008. Under these agreements, a certain ratio of indebtedness to consolidated net worth must be maintained. There were no amounts outstanding under the revolving-credit agreements at December 31, 2004. The interest rate on the 364-day agreement, if drawn upon, is Libor plus 19 basis points, which is subject to adjustment if Alcoa's credit rating changes, to a maximum interest rate of Libor plus 86 basis points. The interest rate on the agreements expiring in 2008 and 2009, if drawn upon, is Libor plus 17 basis points, which is subject to adjustment if Alcoa's credit rating changes, to a maximum interest rate of Libor plus 83.5 basis points.

Aluminio's export notes are collateralized by receivables due under an export contract. Certain financial ratios must be maintained, including the maintenance of a minimum debt service ratio, as well as a certain level of tangible net worth of Aluminio and its subsidiaries. During 2002, the notes were amended to exclude the effects of foreign currency changes from the tangible net worth calculation.

The fair value adjustments result from changes in the carrying amounts of certain fixed-rate borrowings that have been designated as being hedged. Of the \$33 in 2004, \$(42) related to outstanding hedges and \$75 related to hedges that were settled early. Of the \$104 in 2003, \$(75) related to outstanding hedges and \$179 related to hedges that were settled early. The adjustments for hedges that were settled early are being recognized as reductions of interest expense over the remaining maturity of the related debt (through 2028). For additional information on interest rate swaps, see Note X.

**Short-Term Borrowings.** Alcoa participates in computerized payable settlement arrangements with certain vendors and third-party intermediaries. As of December 31, 2004, short-term borrowings included \$216 of amounts that will be paid through the third-party intermediaries. The arrangements provide that, at the vendor's request, the third-party intermediary advances the amount of the scheduled payment to the vendor, less an appropriate discount, before the scheduled payment date. Alcoa makes payment to the third-party intermediary on the date stipulated in accordance with the commercial terms negotiated with its vendors. For the first three quarters of 2004, these arrangements were classified as accounts payable, trade. Based on the nature of the arrangements, the company has concluded that a more appropriate classification is short-term borrowings. Imputed interest on the borrowings in 2004 was insignificant for reclassification to interest expense. For the full year 2004, the change in the amounts outstanding was reported as cash provided from financing activities. For the first three quarters of 2004, the changes in the amounts outstanding under these arrangements were classified in cash provided from operating activities in the Statement of Consolidated Cash Flows. Quarterly amounts classified as cash provided from operating activities were \$25, \$37, and \$64 in the first, second, and third quarters of 2004, respectively.

#### L. Other Noncurrent Liabilities and Deferred Credits

<u>December 31</u>	2004	2003
Deferred alumina sales revenue	\$ 179	\$ 187
Deferred aluminum sales revenue	260	384
Environmental remediation	318	330
Deferred credits	96	108
Asset retirement obligations	204	195
Other noncurrent liabilities	670	616
	<u>\$1,727</u>	<u>\$1,820</u>

In 2003, Alcoa received a partial advance payment of \$440 (approximately \$70 was classified as current) related to a long-term aluminum supply contract with a customer. Each month for a six-year period, the customer will purchase and Alcoa is required to deliver 7,500 tons of aluminum at market prices. Alcoa has deposited \$7 into a cash collateral account to satisfy one month's delivery obligation under the aluminum supply contract.

#### M. Minority Interests

The following table summarizes the minority shareholders' interests in the equity of consolidated subsidiaries.

<u>December 31</u>	2004	2003
Alcoa of Australia	\$ 798	\$ 676
Alcoa World Alumina LLC	200	208
Alcoa Fujikura Ltd.	273	297
Other majority-owned companies	145	159
	<u>\$1,416</u>	<u>\$1,340</u>

#### N. Commitments and Contingencies

Various lawsuits, claims, and proceedings have been or may be instituted or asserted against Alcoa, including those pertaining to environmental, product liability, and safety and health matters. While the amounts claimed may be substantial, the ultimate liability cannot now be determined because of the considerable uncertainties that exist. Therefore, it is possible

that results of operations or liquidity in a particular period could be materially affected by certain contingencies. However, based on facts currently available, management believes that the disposition of matters that are pending or asserted will not have a materially adverse effect on the financial position or liquidity of the company.

Aluminio is a participant in several hydroelectric power construction projects in Brazil for purposes of increasing its energy self-sufficiency and providing a long-term, low-cost source of power for its facilities. The completed and committed hydroelectric construction projects that Aluminio participates in are outlined in the following tables.

Completed projects	Date completed	Investment participation	Share of output	Debt guarantee	Debt guarantee through 2013
Machadinho	2002	27.23%	22.62%	35.53%	\$ 105

Aluminio committed to taking a share of the output of the completed Machadinho project for 30 years at cost (including cost of financing the project). In the event that other participants in this project fail to fulfill their financial responsibilities, Aluminio may be required to fund a portion of the deficiency. In accordance with the agreement, if Aluminio funds any such deficiency, its participation and share of the output from the project will increase proportionately.

Committed projects	Scheduled completion date	Share of output	Investment participation	Total estimated project costs	Aluminio's share of project costs	Performance bond guarantee
Barra Grande	2006	42.20%	42.20%	\$ 449	\$ 189	\$ 6
Pai-Queré	2008	35.00%	35.00%	\$ 261	\$ 91	\$ 2
Estreito	2009	19.08%	19.08%	\$ 741	\$ 141	\$ 11
Serra do Facão		39.50%	39.50%	\$ 218	\$ 86	\$ 4

These projects were committed to during 2001 and 2002, and the Barra Grande project commenced construction in 2002. At December 31, 2004, approximately 60% of the long-term financing for the Barra Grande project was obtained, of which Aluminio guaranteed 42.20% based on its investment participation. The plans for financing the other projects have not yet been finalized. It is anticipated that a portion of the project costs will be financed with third parties. Aluminio may be required to provide guarantees of project financing or commit to additional investments as these projects progress.

In 2004, the Installation Permit of Serra do Facão was temporarily suspended by legal injunction from the Brazilian Judicial Department (Public Ministry). As a result, the Serra do Facão project has been suspended.

During the second quarter of 2003, the participants in the Santa Isabel project formally requested the return of the performance bond related to the license to construct the hydroelectric project. This project has been terminated.

Aluminio accounts for the Machadinho and Barra Grande hydroelectric projects on the equity method. Its total investment was \$124 and \$136 at December 31, 2004 and 2003, respectively. There have been no significant investments made in any of the other projects.

In October of 2004, Alcoa agreed to acquire a 20% interest in a consortium formed to acquire the Dampier to Bunbury Natural Gas Pipeline (DBNGP) in exchange for an initial cash investment of \$17, which is classified as an equity investment. Alcoa has committed to an additional \$72 in investment to be paid as the pipeline expands through 2008. The investment in the DBNGP was made in order to secure a competitively priced long-term supply of power to Alcoa's refineries in Western Australia. In addition to its equity ownership, Alcoa has an agreement to purchase natural gas from the DBNGP until after 2016. Alcoa's maximum exposure to loss on the investment and the related contract is approximately \$412.

Alcoa of Australia (AofA) is party to a number of natural gas, steam, caustic soda, and electricity contracts that expire between 2005 and 2025. Commitments related to these contracts total \$483 in 2005, \$383 in 2006, \$289 in 2007, \$277 in 2008, \$277 in 2009, and \$2,754 thereafter. AofA is obligated to make minimum payments related to these contracts totaling \$135 in 2005, \$103 in 2006, \$115 in 2007, \$124 in 2008, \$125 in 2009, and \$802 thereafter. Expenditures under these take-or-pay contracts totaled \$356 in 2004, \$266 in 2003, and \$178 in 2002.

Alcoa has standby letters of credit related to environmental, insurance, and other activities. The total amount committed under these letters of credit, which expire at various dates in 2005 through 2013, was \$293 at December 31, 2004.

#### O. Other Income, Net

	2004	2003	2002
Equity income	\$145	\$138	\$ 72
Interest income	41	38	46
Foreign currency losses	(27)	(81)	(30)
Gains on sales of assets	44	37	52
Net gain on early retirement of debt and interest rate swap settlements (K)	58	—	—
Other income	7	142	38
	<u>\$268</u>	<u>\$274</u>	<u>\$178</u>

The changes in equity income for all years presented were primarily due to Alcoa's investment in Elkem. The gain on the sale of assets in 2004 was primarily the result of the sale of 40% of Alcoa's interest in the Juruti bauxite project in Brazil, which resulted in a \$37 gain in 2004. The gains on sales of assets in 2003 and 2002 were primarily associated with dispositions of office space and other smaller noncore business assets. In 2004, Alcoa recognized a gain of \$58 on the early retirement of long-term debt and the associated settlement of interest rate swaps. Also in 2004, other income included a \$35 gain on the termination of an alumina tolling arrangement, primarily offset by environmental litigation settlements of \$20. The increase in other income from 2002 to 2003 is primarily due to a \$105 gain from insurance settlements of a series of historical environmental matters in the U.S. and an increase in the cash surrender value of employee life insurance.



## P. Cash Flow Information

Cash payments for interest and income taxes follow.

	2004	2003	2002
Interest	\$318	\$352	\$329
Income taxes	294	303	583

The details of cash payments related to acquisitions follow.

	2004	2003	2002
Fair value of assets acquired	\$ 7	\$ 275	\$1,944
Liabilities assumed	(5)	(80)	(666)
Minority interests acquired	—	224	—
Stock issued	—	(410)	—
Cash paid	2	9	1,278
Less: cash acquired	—	—	25
Net cash paid for acquisitions	\$ 2	\$ 9	\$1,253

## Q. Segment and Geographic Area Information

Alcoa is primarily a producer of aluminum products. Aluminum and alumina represent approximately two-thirds of Alcoa's revenues. Nonaluminum products include precision castings, industrial fasteners, vinyl siding, consumer products, food service and flexible packaging products, plastic closures, and electrical distribution systems for cars and trucks. Alcoa's segments are organized by product on a worldwide basis. Alcoa's management reporting system evaluates performance based on a number of factors; however, the primary measure of performance is the after-tax operating income (ATOI) of each segment. Certain items such as interest income, interest expense, foreign currency translation gains/losses, the effects of LIFO inventory accounting, minority interests, restructuring and other charges, discontinued operations, and accounting changes are excluded from segment ATOI. In addition, certain expenses, such as corporate general administrative expenses, and depreciation and amortization on corporate assets, are not included in segment ATOI. Segment assets exclude cash, cash equivalents, short-term investments, and all deferred taxes. Segment assets also exclude items such as corporate fixed assets, LIFO reserves, goodwill allocated to corporate, assets held for sale, and other amounts.

The accounting policies of the segments are the same as those described in the Summary of Significant Accounting Policies (Note A). Transactions among segments are established based on negotiation among the parties. Differences between segment totals and Alcoa's consolidated totals for line items not reconciled are primarily due to corporate allocations.

Alcoa's products are used worldwide in packaging, consumer products, transportation (including aerospace, automotive, truck trailer, rail, and shipping), building and construction, and industrial applications. Total exports from the U.S. from continuing operations were \$1,825 in 2004, \$1,646 in 2003, and \$1,609 in 2002.

Effective January 2005, Alcoa realigned its organization structure, creating global groups to better serve customers and increase the ability to capture efficiencies. Alcoa is currently evaluating the effect, if any, upon its segment reporting.

Alcoa's reportable segments are as follows.

**Alumina and Chemicals.** This segment consists of Alcoa's worldwide alumina and chemicals system that includes the mining of bauxite, which is then refined into alumina. Alumina is sold directly to internal and external smelter customers worldwide or is processed into industrial chemical products. Alcoa's alumina operations in Australia are a significant component of this segment. Slightly more than half of Alcoa's alumina production is sold under supply contracts to third parties worldwide, while the remainder is used internally. In the first quarter of 2004, Alcoa sold its specialty chemicals business.

**Primary Metals.** This segment consists of Alcoa's worldwide smelter system. Primary Metals receives alumina primarily from the Alumina and Chemicals segment and produces aluminum ingot to be used by Alcoa's fabricating businesses, as well as sold to external customers, aluminum traders, and commodity markets. Results from the sale of aluminum powder, scrap, and excess power are also included in this segment, as well as the results from aluminum derivative contracts. Aluminum ingot produced by Alcoa and used internally is transferred to other segments at prevailing market prices. The sale of ingot represents approximately 90% of this segment's third-party sales.

**Flat-Rolled Products.** This segment's principal business is the production and sale of aluminum plate, sheet, and foil. This segment includes rigid container sheet (RCS), which is sold directly to customers in the packaging and consumer market and is used to produce aluminum beverage cans. Seasonal increases in RCS sales are generally experienced in the second and third quarters of the year. This segment also includes sheet and plate used in the transportation, building and construction, and distributor markets (mainly used in the production of machinery and equipment and consumer durables), of which approximately two-thirds is sold directly to customers while the remainder is sold through distributors. Approximately two-thirds of the third-party sales in this segment are derived from sheet and plate, and foil used in industrial markets, while the remaining one-third of third-party sales consists of RCS. While the customer base for flat-rolled products is large, a significant amount of sales of RCS, sheet, and plate is to a relatively small number of customers.

**Engineered Products.** This segment includes hard- and soft-alloy extrusions, including architectural extrusions, super-alloy castings, steel and aluminum fasteners, aluminum forgings, and wheels. These products serve the aerospace, automotive, commercial transportation, industrial gas turbine, building and construction, and distributor markets (mainly used in the production of machinery and equipment) and are sold directly to customers and through distributors.

**Packaging and Consumer.** This segment includes consumer, foodservice, and flexible packaging products; food and beverage closures; plastic sheet and film for the packaging industry; and imaging and graphic communications for the packaging industry. The principal products in this segment include aluminum foil; plastic wraps and bags; plastic beverage and

food closures; flexible packaging products; design and prepress services; gravure and flexographic image carrier products; thermoformed plastic containers and extruded plastic sheet and film. Consumer products are marketed under brands including Reynolds Wrap®, Diamond®, Baco®, and Cut-Rite® wax paper. Seasonal increases generally occur in the second and fourth quarters of the year for such products as consumer foil and plastic wraps and bags, while seasonal slowdowns for closures generally occur in the fourth quarter of the year. Products are generally sold directly to customers, consisting of supermarkets, beverage companies, food processors, retail chains, and commercial foodservice distributors.

**Other.** This group includes other Alcoa businesses that are not included in the segments previously mentioned. This group includes Alcoa Fujikura Ltd. (AFL), which produces electrical components for the automotive industry; the residential building products operations, Alcoa Home Exteriors; and automotive parts businesses. Products in this segment are generally sold directly to customers or through distributors. AFL sales are dependent on a relatively small number of customers. Seasonal increases in the building products business generally occur in the second and third quarters of the year. The results of this segment do not include Alcoa's telecommunications business which was reclassified into discontinued operations.

Alcoa's reportable segments, as reclassified for discontinued operations and assets held for sale, follow.

Segment information	Alumina and Chemicals	Primary Metals	Flat-Rolled Products	Engineered Products	Packaging and Consumer	Other	Total
<b>2004</b>							
Sales:							
Third-party sales	\$ 1,975	\$3,806	\$ 5,962	\$ 6,300	\$ 3,166	\$2,269	\$23,478
Intersegment sales	1,418	4,335	89	15	—	—	5,857
<b>Total sales</b>	<b>\$ 3,393</b>	<b>\$8,141</b>	<b>\$ 6,051</b>	<b>\$ 6,315</b>	<b>\$ 3,166</b>	<b>\$2,269</b>	<b>\$29,335</b>
Profit and loss:							
Equity income (loss)	\$ 1	\$ 58	\$ (1)	\$ —	\$ 1	\$ 26	\$ 85
Depreciation, depletion, and amortization	153	326	198	247	142	68	1,134
Income taxes	240	314	75	103	86	24	842
ATOI	632	808	246	250	168	65	2,169
Assets:							
Capital expenditures	\$ 339	\$ 281	\$ 153	\$ 174	\$ 79	\$ 38	\$ 1,064
Equity investments	187	563	6	—	2	208	966
Goodwill	15	931	168	2,638	888	198	4,838
<b>Total assets</b>	<b>3,605</b>	<b>8,121</b>	<b>3,672</b>	<b>6,823</b>	<b>3,063</b>	<b>1,436</b>	<b>26,720</b>
<b>2003</b>							
Sales:							
Third-party sales	\$ 2,002	\$3,229	\$ 4,815	\$ 5,589	\$ 3,113	\$2,344	\$21,092
Intersegment sales	1,021	3,098	66	24	—	—	4,209
<b>Total sales</b>	<b>\$ 3,023</b>	<b>\$6,327</b>	<b>\$ 4,881</b>	<b>\$ 5,613</b>	<b>\$ 3,113</b>	<b>\$2,344</b>	<b>\$25,301</b>
Profit and loss:							
Equity income (loss)	\$ —	\$ 55	\$ (1)	\$ —	\$ 10	\$ 3	\$ 67
Depreciation, depletion, and amortization	147	310	192	235	141	77	1,102
Income taxes	161	256	70	60	107	47	701
ATOI	415	657	221	155	214	78	1,740
Assets:							
Capital expenditures	\$ 173	\$ 169	\$ 149	\$ 130	\$ 78	\$ 37	\$ 736
Equity investments	163	489	13	—	2	187	854
Goodwill	17	918	165	2,587	876	198	4,761
<b>Total assets</b>	<b>3,077</b>	<b>7,398</b>	<b>3,380</b>	<b>6,362</b>	<b>3,038</b>	<b>1,452</b>	<b>24,707</b>
<b>2002</b>							
Sales:							
Third-party sales	\$ 1,743	\$3,174	\$ 4,640	\$ 5,150	\$ 2,792	\$2,435	\$19,934
Intersegment sales	955	2,655	68	34	—	—	3,712
<b>Total sales</b>	<b>\$ 2,698</b>	<b>\$5,829</b>	<b>\$ 4,708</b>	<b>\$ 5,184</b>	<b>\$ 2,792</b>	<b>\$2,435</b>	<b>\$23,646</b>
Profit and loss:							
Equity income (loss)	\$ 1	\$ 44	\$ (4)	\$ —	\$ 17	\$ 4	\$ 62
Depreciation, depletion, and amortization	139	300	192	219	130	67	1,047
Income taxes	130	266	87	50	99	44	676
ATOI	315	650	220	105	195	64	1,549
Assets:							
Capital expenditures	\$ 156	\$ 248	\$ 227	\$ 204	\$ 89	\$ 63	\$ 987
Equity investments	163	411	50	—	134	176	934
Goodwill	16	910	153	2,488	869	209	4,645
<b>Total assets</b>	<b>2,615</b>	<b>7,166</b>	<b>3,266</b>	<b>6,451</b>	<b>3,093</b>	<b>1,557</b>	<b>24,148</b>



The following reconciles segment information to consolidated totals.

	2004	2003	2002
<b>Sales:</b>			
Total sales	\$29,335	\$25,301	\$23,646
Elimination of intersegment sales	(5,857)	(4,209)	(3,712)
Consolidated sales	<u>\$23,478</u>	<u>\$21,092</u>	<u>\$19,934</u>
<b>Net income:</b>			
ATOI	\$ 2,169	\$ 1,740	\$ 1,549
Intersegment profit/(loss) eliminations	52	9	(6)
Unallocated amounts (net of tax):			
Interest income	26	24	31
Interest expense	(176)	(204)	(227)
Minority interests	(245)	(238)	(172)
Corporate expense	(283)	(287)	(234)
Restructuring and other charges	23	26	(296)
Discontinued operations	(92)	(70)	(132)
Accounting changes	—	(47)	34
Other	(164)	(15)	(127)
Consolidated net income	<u>\$ 1,310</u>	<u>\$ 938</u>	<u>\$ 420</u>
<b>Assets:</b>			
Total segment assets	\$26,720	\$24,707	\$24,148
Elimination of intersegment receivables	(565)	(382)	(285)
Unallocated amounts:			
Cash, cash equivalents, and short-term investments	463	606	413
Deferred tax assets	1,884	1,610	1,482
Corporate goodwill	1,703	1,682	1,637
Corporate fixed assets	595	810	593
LIFO reserve	(700)	(558)	(514)
Assets held for sale	210	792	894
Other	2,299	2,444	1,442
Consolidated assets	<u>\$32,609</u>	<u>\$31,711</u>	<u>\$29,810</u>

Geographic information for revenues, based on country of origin, and long-lived assets follows.

	2004	2003	2002
<b>Revenues:</b>			
U.S.	\$14,484	\$12,843	\$12,572
Australia	1,971	1,615	1,250
Spain	1,307	1,119	999
United Kingdom	830	714	735
Brazil	603	617	677
Germany	770	786	656
Other	3,513	3,398	3,045
	<u>\$23,478</u>	<u>\$21,092</u>	<u>\$19,934</u>
<b>Long-lived assets:*</b>			
U.S.	\$12,009	\$12,395	\$12,603
Canada	2,566	2,634	2,711
Australia	2,262	2,050	1,544
United Kingdom	869	828	732
Brazil	797	708	372
Germany	278	265	225
Other	2,358	2,061	1,896
	<u>\$21,139</u>	<u>\$20,941</u>	<u>\$20,083</u>

\* Long-lived assets include intangible assets.

## R. Preferred and Common Stock

**Preferred Stock.** Alcoa has two classes of preferred stock. Serial preferred stock has 546,024 shares authorized and outstanding, with a par value of \$100 per share and an annual \$3.75 cumulative dividend preference per share. Class B serial preferred stock has 10 million shares authorized (none issued) and a par value of \$1 per share.

**Common Stock.** There are 1.8 billion shares authorized at a par value of \$1 per share. As of December 31, 2004, 136.6 million shares of common stock were reserved for issuance under the long-term stock incentive plans.

Stock options under the company's stock incentive plans have been granted, at not less than market prices on the dates of grant. Stock option features based on date of original grant are as follows:

<u>Date of original grant</u>	<u>Vesting</u>	<u>Term</u>	<u>Reload feature</u>
2002 and prior	One year	10 years	One reload over option term
2003	3 years (1/3 each year)	10 years	One reload in 2004 for 1/3 vesting in 2004
2004 and forward	3 years (1/3 each year)	6 years	None

The transactions for shares under options were: (shares in millions)

	<u>2004</u>	<u>2003</u>	<u>2002</u>
<b>Outstanding, beginning of year:</b>			
Number of options	87.8	81.6	73.5
Weighted average exercise price	\$32.50	\$33.19	\$32.02
<b>Granted:</b>			
Number of options	8.8	16.8	17.3
Weighted average exercise price	\$35.63	\$24.93	\$36.10
<b>Exercised:</b>			
Number of options	(5.6)	(8.0)	(7.1)
Weighted average exercise price	\$23.34	\$23.29	\$26.77
<b>Expired or forfeited:</b>			
Number of options	(1.4)	(2.6)	(2.1)
Weighted average exercise price	\$37.87	\$32.58	\$37.50
<b>Outstanding, end of year:</b>			
Number of options	89.6	87.8	81.6
Weighted average exercise price	\$33.34	\$32.50	\$33.19
<b>Exercisable, end of year:</b>			
Number of options	73.5	71.6	68.8
Weighted average exercise price	\$34.39	\$34.22	\$32.68
<b>Shares reserved for future options</b>	<b>35.1</b>	<b>13.1</b>	<b>25.6</b>

The following tables summarize certain stock option information at December 31, 2004: (shares in millions)

### Options Outstanding

<u>Range of exercise price</u>	<u>Number</u>	<u>Weighted average remaining life</u>	<u>Weighted average exercise price</u>
\$ 0.125	0.1	employment career	\$ 0.125
\$ 4.38–\$12.15	0.7	1.20	10.97
\$12.16–\$19.93	1.9	2.43	16.56
\$19.94–\$27.71	16.9	5.98	22.55
\$27.72–\$35.49	17.2	4.52	31.71
\$35.50–\$45.59	52.8	4.79	38.28
<b>Total</b>	<b>89.6</b>	<b>4.88</b>	<b>33.34</b>

## Options Exercisable

Range of exercise price	Number	Weighted average exercisable price
\$ 0.125	0.1	\$ 0.125
\$ 4.38–\$12.15	0.7	10.97
\$12.16–\$19.93	1.9	16.56
\$19.94–\$27.71	8.3	22.56
\$27.72–\$35.49	16.8	31.69
\$35.50–\$45.59	45.7	38.69
<b>Total</b>	<b>73.5</b>	<b>34.39</b>

In addition to stock option awards, there are 1 million unvested stock awards and 500,000 unvested performance share awards (targeted amount) as of December 31, 2004. There are 10.5 million shares reserved for future grants. Compensation expense recognized on these awards in 2004 was \$9 (after tax).

## Share Activity (number of shares)

	Preferred stock	Common stock		
		Issued	Treasury	Net outstanding
<b>Balance at end of 2001</b>	557,649	924,574,538	(76,992,662)	847,581,876
Treasury shares purchased	(11,625)		(6,313,100)	(6,313,100)
Stock issued: compensation plans			3,550,686	3,550,686
<b>Balance at end of 2002</b>	546,024	924,574,538	(79,755,076)	844,819,462
Stock issued: Alcoa Aluminio minority interest acquisition (F)			17,773,541	17,773,541
Stock issued: compensation plans			5,897,683	5,897,683
<b>Balance at end of 2003</b>	546,024	924,574,538	(56,083,852)	868,490,686
Treasury shares purchased			(1,777,354)	(1,777,354)
Stock issued: compensation plans			4,266,751	4,266,751
<b>Balance at end of 2004</b>	546,024	924,574,538	(53,594,455)	870,980,083

## S. Earnings Per Share

Basic earnings per common share (EPS) amounts are computed by dividing earnings after the deduction of preferred stock dividends by the average number of common shares outstanding. Diluted EPS amounts assume the issuance of common stock for all potentially dilutive equivalents outstanding.

The information used to compute basic and diluted EPS on income from continuing operations follows. (shares in millions)

	2004	2003	2002
Income from continuing operations	\$ 1,402	\$ 1,055	\$ 518
Less: preferred stock dividends	2	2	2
Income from continuing operations available to common shareholders	\$ 1,400	\$ 1,053	\$ 516
Average shares outstanding—basic	869.9	853.4	845.4
Effect of dilutive securities:			
Shares issuable upon exercise of dilutive stock options	7.5	3.2	4.4
Average shares outstanding—diluted	877.4	856.6	849.8

Options to purchase 56 million shares of common stock at an average exercise price of \$38 per share were outstanding as of December 31, 2004 but were not included in the computation of diluted EPS because the option exercise price was greater than the average market price of the common shares.

## T. Income Taxes

The components of income from continuing operations before taxes on income were:

	2004	2003	2002
U.S.	\$ 301	\$ 369	\$ (302)
Foreign	1,903	1,341	1,309
	<b>\$2,204</b>	<b>\$1,710</b>	<b>\$1,007</b>

The provision for taxes on income from continuing operations consisted of:

	2004	2003	2002
Current:			
U.S. federal*	\$ 190	\$ (34)	\$ 111
Foreign	448	306	356

State and local	14	17	17
	<u>652</u>	<u>289</u>	<u>484</u>
Deferred:			
U.S. federal*	(161)	132	(193)
Foreign	54	(4)	11
State and local	12	—	15
	<u>(95)</u>	<u>128</u>	<u>(167)</u>
Total	<u>\$ 557</u>	<u>\$417</u>	<u>\$ 317</u>

\* Includes U.S. taxes related to foreign income

Included in discontinued operations is a tax benefit of \$24 in 2004, \$39 in 2003, and \$75 in 2002.

The exercise of employee stock options generated a tax benefit of \$21 in 2004, \$23 in 2003, and \$34 in 2002. This amount was credited to additional capital and reduced current taxes payable.

Reconciliation of the U.S. federal statutory rate to Alcoa's effective tax rate for continuing operations follows.

	<u>2004</u>	<u>2003</u>	<u>2002</u>
U.S. federal statutory rate	35.0%	35.0%	35.0%
Taxes on foreign income	(9.4)	(7.3)	(5.8)
State taxes net of federal benefit	0.7	0.9	2.4
Minority interests	0.5	1.1	1.4
Permanent differences on asset disposals	(1.1)	(0.1)	2.6
Goodwill impairment and amortization	—	—	0.2
Adjustments to prior years' accruals	0.7	(4.1)	(3.8)
Other	(1.1)	(1.1)	(0.5)
	<u>25.3%</u>	<u>24.4%</u>	<u>31.5%</u>
Effective tax rate	<u>25.3%</u>	<u>24.4%</u>	<u>31.5%</u>

The components of net deferred tax assets and liabilities follow.

December 31	2004		2003	
	Deferred tax assets	Deferred tax liabilities	Deferred tax assets	Deferred tax liabilities
Depreciation	\$ —	\$ 1,434	\$ —	\$ 1,603
Employee benefits	1,422	—	1,447	—
Loss provisions	420	—	375	—
Deferred income/expense	113	202	248	153
Tax loss carryforwards	498	—	438	—
Tax credit carryforwards	348	—	258	—
Unrealized gains on available-for-sale securities	—	119	—	169
Other	199	156	154	179
	3,000	1,911	2,920	2,104
Valuation allowance	(120)	—	(147)	—
	\$ 2,880	\$ 1,911	\$ 2,773	\$ 2,104

Of the total deferred tax assets associated with the tax loss carryforwards, \$194 expires over the next ten years, \$63 over the next 20 years, and \$241 is unlimited. Of the tax credit carryforwards, \$161 is unlimited with the balance expiring over the next ten years. A substantial portion of the valuation allowance relates to the loss carryforwards because the ability to generate sufficient foreign taxable income in future years is uncertain. The net reduction in the valuation allowance for foreign net operating losses and tax credits resulted in the recognition of a tax benefit of \$21 in 2004, and \$49 in 2003. At December 31, 2004, approximately \$31 of the valuation allowance related to acquired companies for which subsequently recognized benefits will reduce goodwill.

The cumulative amount of Alcoa's foreign undistributed net earnings for which no deferred taxes have been provided was \$7,248 at December 31, 2004. Management has no plans to distribute such earnings in the foreseeable future. It is not practical to determine the deferred tax liability on these earnings. Alcoa is currently evaluating the American Job Creation Act of 2004 provision that allows companies to repatriate earnings from foreign subsidiaries at a reduced U.S. tax rate. Alcoa is evaluating the consequences of repatriating up to \$1,000 with a related potential range of income tax effects of zero to \$90. Alcoa will complete its review by December 31, 2005, and will recognize the income tax effect, if any, in the period when a decision whether to repatriate is made.

#### U. Lease Expense

Certain equipment, warehousing and office space, and ocean-going vessels are under operating lease agreements. Total expense from continuing operations for all leases was \$256 in 2004, \$221 in 2003, and \$204 in 2002. Under long-term operating leases, minimum annual rentals are \$225 in 2005, \$197 in 2006, \$153 in 2007, \$118 in 2008, \$98 in 2009, and a total of \$356 for 2010 and thereafter.

#### V. Interest Cost Components

	2004	2003	2002
Amount charged to expense	\$270	\$314	\$350
Amount capitalized	27	21	22
	\$297	\$335	\$372

#### W. Pension Plans and Other Postretirement Benefits

Alcoa maintains pension plans covering most U.S. employees and certain other employees. Pension benefits generally depend on length of service, job grade, and remuneration. Substantially all benefits are paid through pension trusts that are sufficiently funded to ensure that all plans can pay benefits to retirees as they become due.

Alcoa maintains health care and life insurance benefit plans covering most eligible U.S. retired employees and certain other retirees. Generally, the medical plans pay a percentage of medical expenses, reduced by deductibles and other coverages. These plans are generally unfunded, except for certain benefits funded through a trust. Life benefits are generally provided by insurance contracts. Alcoa retains the right, subject to existing agreements, to change or eliminate these benefits. All U.S. salaried and certain hourly employees hired after January 1, 2002 will not have postretirement health care benefits.

Alcoa uses a December 31 measurement date for the majority of its plans.

#### Obligations and Funded Status

December 31	Pension benefits		Postretirement benefits	
	2004	2003	2004	2003
<b>Change in projected benefit obligation</b>				
Benefit obligation at beginning of year	\$10,268	\$ 9,360	\$ 3,661	\$ 3,661
Service cost	204	194	31	31
Interest cost	617	609	221	237
Amendments	(4)	20	(6)	(31)
Actuarial losses	220	540	276	112
Acquisitions	—	17	—	—
Divestitures	(10)	—	—	—
Benefits paid, net of participants' contributions	(668)	(656)	(355)	(349)
Other transfers, net	46	—	—	—
Exchange rate	78	184	1	—



Projected benefit obligation at end of year	\$10,751	\$10,268	\$ 3,829	\$ 3,661
<b>Change in plan assets</b>				
Fair value of plan assets at beginning of year	\$ 8,386	\$ 7,531	\$ 137	\$ 119
Actual return on plan assets	927	1,254	20	18
Acquisitions	—	20	—	—
Employer contributions	101	87	—	—
Participants' contributions	24	31	—	—
Benefits paid	(676)	(667)	—	—
Administrative expenses	(28)	(17)	—	—
Other transfers, net	27	—	—	—
Exchange rate	39	147	—	—
Fair value of plan assets at end of year	\$ 8,800	\$ 8,386	\$ 157	\$ 137
<b>Funded status</b>				
Unrecognized net actuarial loss	\$ (1,951)	\$ (1,882)	\$ (3,672)	\$ (3,524)
Unrecognized net prior service cost (benefit)	1,912	1,775	1,133	916
	73	160	(7)	(1)
Net amount recognized	\$ 34	\$ 53	\$ (2,546)	\$ (2,609)
<b>Amounts recognized in the Consolidated Balance Sheet consist of:</b>				
Prepaid benefit	\$ 83	\$ 108	\$ —	\$ —
Accrued benefit liability	(1,587)	(1,599)	(2,546)	(2,609)
Intangible asset	53	84	—	—
Accumulated other comprehensive loss	1,485	1,460	—	—
Amount recognized	\$ 34	\$ 53	\$ (2,546)	\$ (2,609)
Amounts attributed to joint venture partners	17	19	38	45
Net amount recognized	\$ 51	\$ 72	\$ (2,508)	\$ (2,564)

The projected benefit obligation for all defined benefit pension plans was \$10,751 and \$10,268 at December 31, 2004 and 2003, respectively.

The accumulated benefit obligation for all defined benefit pension plans was \$10,326 and \$9,771 at December 31, 2004 and 2003, respectively.

The aggregate projected benefit obligation and fair value of plan assets for the pension plans with benefit obligations in excess of plan assets were \$10,518 and \$8,343, respectively, as of December 31, 2004, and \$10,047 and \$8,093, respectively, as of December 31, 2003. The aggregate accumulated benefit obligation and fair value of plan assets with accumulated benefit obligations in excess of plan assets were \$10,086 and \$8,320, respectively, as of December 31, 2004, and \$9,554 and \$8,087, respectively, as of December 31, 2003.

At December 31, 2004 and 2003, the long-term accrued pension benefits on the Consolidated Balance Sheet were \$1,513 and \$1,568, respectively. The total accrued benefit liability was \$1,587 in 2004 and \$1,599 in 2003, which included the current portion of the liability of \$57 in 2004 and \$12 in 2003 and the amounts attributed to joint venture partners of \$17 in 2004 and \$19 in 2003.

The benefit obligation for postretirement benefit plans and net amount recognized were \$3,829 and \$2,546, respectively, as of December 31, 2004, and \$3,661 and \$2,609, respectively, as of December 31, 2003. Of the net amount recognized, the long-term, current, and amounts attributed to joint venture partners were \$2,150, \$358, and \$38, respectively, as of December 31, 2004, and \$2,220, \$344, and \$45, respectively, as of December 31, 2003.

On December 8, 2003, the Medicare Prescription Drug, Improvement and Modernization Act of 2003 (the Act) was signed into law. The Act introduced a prescription drug benefit under Medicare (Medicare Part D), as well as a federal subsidy to sponsors of retiree health care benefit plans that provide a benefit that is at least actuarially equivalent to Medicare Part D. As of December 31, 2004 and 2003, Alcoa recognized the effects of the Act in the measure of its Accumulated Postretirement Benefit Obligation (APBO) for certain retiree groups in accordance with FASB Staff Position No. FAS 106-2.

Recognition of the subsidy for certain retiree groups as an offset to plan costs resulted in a \$190 reduction in the APBO at December 31, 2003. The reduction in APBO is included with other deferred actuarial gains and losses.

The net periodic benefit cost for postretirement benefits for the year ended December 31, 2004 reflected a reduction of \$24 related to the recognition of the federal subsidy under Medicare Part D. Subsequent net periodic postretirement benefit costs will be adjusted to reflect the lower interest cost due to the lower APBO. To the extent that the deferred gains and losses are outside the corridor, the excess will continue to be recognized as prescribed under FAS 106. For other retiree groups, the impact of the potential subsidy benefit has not been recorded because those amounts could not be reasonably estimated.

Alcoa has not reflected any changes in participation in the company plan as a result of the Act. The reduction in APBO represents the value of the 28% subsidy and does not reflect any other changes. The subsidy is estimated to reduce the prescription drug portion of the per capita cost by 24%.

Currently, Alcoa pays a portion of the prescription drug cost for certain retirees. The benefits for certain retirees were determined to be actuarially equivalent based on an analysis of Alcoa's existing prescription drug plan provisions and claims experience as compared to the Medicare Part D prescription drug benefit that will be effective in 2006.

#### Components of Net Periodic Benefit Costs

December 31	Pension benefits			Postretirement benefits		
	2004	2003	2002	2004	2003	2002
Service cost	\$ 204	\$ 194	\$ 176	\$ 31	\$ 31	\$ 25
Interest cost	617	609	593	221	237	224
Expected return on plan assets	(719)	(727)	(776)	(13)	(11)	(11)
Amortization of prior service cost (benefit)	39	38	38	(6)	(32)	(32)
Recognized actuarial loss	61	8	4	46	40	5
Net periodic benefit costs	\$ 202	\$ 122	\$ 35	\$279	\$265	\$211

An increase in the minimum pension liability resulted in a charge to shareholders' equity of \$21 in 2004 and \$39 in 2003.

## Assumptions

Weighted average assumptions used to determine benefit obligations are as follows:

<u>December 31</u>	<u>2004</u>	<u>2003</u>
Discount rate	6.00%	6.25%
Rate of compensation increase	4.50	5.00

The discount rate is based on settling the pension obligation with high grade, high yield corporate bonds, and the rate of compensation increase is based upon actual experience.

Weighted average assumptions used to determine the net periodic benefit cost are as follows:

<u>Year ended December 31</u>	<u>2004</u>	<u>2003</u>	<u>2002</u>
Discount rate	6.25%	6.75%	7.25%
Expected long-term return on plan assets	9.00	9.00	9.50
Rate of compensation increase	5.00	5.00	5.00

The expected return on plan assets is based on historical performance as well as expected future rates of return on plan assets considering the current investment portfolio mix and the long-term investment strategy.

Assumed health care cost trend rates are as follows:

<u>December 31</u>	<u>2004</u>	<u>2003</u>	<u>2002</u>
Health care cost trend rate assumed for next year	8.0%	9.0%	11.0%
Rate to which the cost trend rate gradually declines	5.0%	5.0%	5.0%
Year that the rate reaches the rate at which it is assumed to remain	2009	2009	2008

The health care cost trend rate in the calculation of the 2003 benefit obligation was 9.0% from 2003 to 2004 and 8.0% from 2004 to 2005. Actual company health care trend experience in 2003 and 2004 was 7.5% and 5.0%, respectively. The 8% trend rate will be maintained for 2005.

Assumed health care cost trend rates have an effect on the amounts reported for the health care plan. A one-percentage-point change in these assumed rates would have the following effects:

	<u>1% increase</u>	<u>1% decrease</u>
Effect on total of service and interest cost components	\$ 10	\$ (9)
Effect on postretirement benefit obligations	153	(137)

## Plan Assets

Alcoa's pension and postretirement plans' investment policy, weighted average asset allocations at December 31, 2004 and 2003, and target allocations for 2005, by asset category, are as follows:

<u>Asset category</u>	<u>Policy range</u>	<u>Plan assets at December 31</u>		<u>Target %</u>
		<u>2004</u>	<u>2003</u>	<u>2005</u>
Equity securities	35–60%	56%	52%	53%
Debt securities	30–55%	35	36	35
Real estate	5–15%	5	6	6
Other	0–15%	4	6	6
Total		100%	100%	100%

The basic goal underlying the pension plan investment policy is to ensure that the assets of the plan, along with expected plan sponsor contributions, will be invested in a prudent manner to meet the obligations of the plan as those obligations come due. Investment practices must comply with the requirements of the Employee Retirement Income Security Act of 1974 (ERISA) and any other applicable laws and regulations.

Numerous asset classes with differing expected rates of return, return volatility, and correlations are utilized to reduce risk by providing diversification. Debt securities comprise a significant portion of the portfolio due to their plan-liability-matching characteristics and to address the plan's cash flow requirements. Additionally, diversification of investments within each asset class is utilized to further reduce the impact of losses in single investments. The use of derivative instruments is permitted where appropriate and necessary for achieving overall investment policy objectives.

## Cash Flows

Alcoa expects to contribute \$57 to its pension plans in 2005.

Alcoa also sponsors a number of defined contribution pension plans. Expenses were \$118 in 2004, \$107 in 2003, and \$101 in 2002.

Benefit payments expected to be paid to plan participants and expected subsidy receipts are as follows:

<u>Year ended December 31</u>	<u>Pension benefits</u>	<u>Post- retirement benefits</u>	<u>Subsidy receipts</u>
2005	\$ 700	\$ 358	\$ —
2006	700	350	15
2007	750	350	15

2008	750	350	15
2009	800	350	15
2010 through 2014	4,400	1,500	75
	<u>\$8,100</u>	<u>\$ 3,258</u>	<u>\$ 135</u>

## X. Other Financial Instruments and Derivatives

**Other Financial Instruments.** The carrying values and fair values of Alcoa's financial instruments at December 31 follow.

	2004		2003	
	Carrying value	Fair value	Carrying value	Fair value
Cash and cash equivalents	\$ 457	\$ 457	\$ 576	\$ 576
Short-term investments	6	6	30	30
Noncurrent receivables	18	18	23	23
Available-for-sale investments	527	527	639	639
Short-term debt	324	324	573	573
Commercial paper	630	630	—	—
Long-term debt	5,346	5,968	6,693	7,372

The methods used to estimate the fair values of certain financial instruments follow.

**Cash and Cash Equivalents, Short-Term Investments, Short-Term Debt, and Commercial Paper.** The carrying amounts approximate fair value because of the short maturity of the instruments.

**Noncurrent Receivables.** The fair value of noncurrent receivables is based on anticipated cash flows which approximates carrying value.

**Available-for-Sale Investments.** The fair value of investments is based on readily available market values. Investments in marketable equity securities are classified as “available for sale” and are carried at fair value.

**Long-Term Debt.** The fair value is based on interest rates that are currently available to Alcoa for issuance of debt with similar terms and remaining maturities.

**Derivatives.** Alcoa uses derivatives for purposes other than trading. Fair value gains (losses) of outstanding derivatives contracts were:

December 31	2004	2003
Aluminum	\$ 211	\$ 70
Interest rates	(42)	(74)
Other commodities, principally natural gas	53	73
Currencies	38	(6)

#### Fair Value Hedges

**Aluminum.** Customers often require Alcoa to enter into long-term, fixed-price commitments. These commitments expose Alcoa to the risk of higher aluminum prices between the time the order is committed and the time that the order is shipped. Alcoa’s aluminum commodity risk management policy is to manage, principally through the use of futures contracts, the aluminum price risk of its firm commitments. These contracts cover known exposures, generally within three years.

**Interest Rates.** Alcoa uses interest rate swaps to help maintain a strategic balance between fixed- and floating-rate debt and to manage overall financing costs. As of December 31, 2004, the company had pay floating, receive fixed interest rate swaps that were designated as fair value hedges. These hedges effectively convert the interest rate from fixed to floating on \$2,750 of debt through 2018. For additional information on interest rate swaps and their effect on debt and interest expense, see Note K.

**Currencies.** Alcoa uses cross-currency interest rate swaps that effectively convert its U.S. dollar denominated debt into Brazilian reais debt at local interest rates.

#### Cash Flow Hedges

**Interest Rates.** Alcoa previously used interest rate swaps to establish fixed interest rates on anticipated borrowings between June 2005 and June 2006. Due to a change in forecasted borrowing requirements, resulting from the restructuring of debt in June 2004 and a forecasted increase in future operating cash flows resulting from improved market conditions, it is no longer probable that the anticipated borrowings will occur in 2005 and 2006. Therefore, Alcoa recognized \$33 of gains that had been deferred on previously settled swaps and \$44 of additional gains to terminate the remaining interest rate swaps. These gains were recorded in other income in the second quarter of 2004. For additional information, see Note K.

**Currencies.** Alcoa is subject to exposure from fluctuations in foreign currency exchange rates. Foreign currency exchange contracts may be used from time to time to hedge the variability in cash flows from the forecasted payment or receipt of currencies other than the functional currency. These contracts cover periods commensurate with known or expected exposures, generally within three years. The U.S. dollar notional amount of all foreign currency contracts was approximately \$400 and \$200 as of December 31, 2004 and 2003, respectively.

**Commodities.** Alcoa anticipates the continued requirement to purchase aluminum and other commodities such as natural gas, fuel oil, and electricity for its operations. Alcoa enters into futures contracts to reduce volatility in the price of these commodities.

#### Other

Alcoa has also entered into certain derivatives to minimize its price risk related to aluminum purchases. Alcoa has not qualified these contracts for hedge accounting treatment, and therefore, the fair value gains and losses on these contracts are recorded in earnings. In addition, Alcoa has entered into power supply contracts that contain pricing provisions related to the LME aluminum price. The LME linked pricing features are considered embedded derivatives. A majority of these embedded derivatives have been designated as cash flow hedges of future sales of aluminum. Gains and losses on the remainder of these derivatives are recognized in earnings. The net earnings impact of these contracts was a gain of \$5 in 2004.

Alcoa is exposed to credit loss in the event of nonperformance by counterparties on the above instruments, as well as credit or performance risk with respect to its hedged customers’ commitments. Although nonperformance is possible, Alcoa does not anticipate nonperformance by any of these parties. Contracts are with creditworthy counterparties and are further supported by cash, treasury bills, or irrevocable letters of credit issued by carefully chosen banks. In addition, various master netting arrangements are in place with counterparties to facilitate settlement of gains and losses on these contracts.

For further information on Alcoa’s hedging and derivatives activities, see Notes A and K.

#### Y. Environmental Matters

Alcoa continues to participate in environmental assessments and cleanups at a number of locations. These include approximately 30 owned or operating facilities and adjoining properties, approximately 39 previously owned or operating facilities and adjoining properties, and approximately 67 waste sites, including Superfund sites. A liability is recorded for environmental remediation costs or damages when a cleanup program becomes probable and the costs or damages can be reasonably estimated. See Note A for additional information.

As assessments and cleanups proceed, the liability is adjusted based on progress made in determining the extent of remedial actions and related costs and damages. The liability can change substantially due to factors such as the nature and extent of contamination, changes in remedial requirements, and technological changes. Therefore, it is not possible to determine the outcomes or to estimate with any degree of accuracy the potential costs for certain of these matters.

The following discussion provides additional details regarding the current status of Alcoa’s significant sites where the final outcome cannot be determined or the potential costs in the future cannot be estimated.

**Massena, New York.** Alcoa has been conducting investigations and studies of the Grasse River, adjacent to Alcoa's Massena, NY plant site, under order from the U.S. Environmental Protection Agency (EPA) issued under the Comprehensive Environmental Response, Compensation and Liability Act, also known as Superfund. Sediments and fish in the river contain varying levels of polychlorinated biphenyl (PCB).

In 2002, Alcoa submitted an Analysis of Alternatives Report that detailed a variety of remedial alternatives with estimated costs ranging from \$2 and \$525. Because the selection of the \$2 alternative (natural recovery) was considered remote, Alcoa adjusted the reserve for the Grasse River in 2002 to \$30 representing the low end of the range of possible alternatives, as no single alternative could be identified as more probable than the others.

In June of 2003, based on river observations during the spring of 2003, the EPA requested that Alcoa gather additional field data to assess the potential for sediment erosion from winter river ice formation and breakup. The results of these additional studies, submitted in a report to the EPA in April of 2004, suggest that this phenomenon has the potential to occur approximately every 10 years and may impact sediments in certain portions of the river under all remedial scenarios. The EPA informed Alcoa that a final remedial decision for the river could not be made without substantially more information, including river pilot studies on the effects of ice formation and breakup on each of the remedial techniques. The EPA requested that Alcoa consider a Remedial Options Pilot Study (ROPS) to gather this information. The scope of this study includes sediment removal and capping, the installation of an ice control structure, and significant monitoring.

In May of 2004, Alcoa agreed to perform the study at an estimated cost of \$35. Most of the work should be completed by the fourth quarter of 2005. It is anticipated that a report of findings will be issued to the EPA in 2006. Subsequent to this submittal, a revised Analysis of Alternatives Report will be submitted to the EPA at a date to be determined. This information will be used by the EPA to propose a remedy for the entire river.

Alcoa adjusted the reserves in the second quarter of 2004 to include the \$35 for the ROPS. This is in addition to the \$30 previously reserved. With the exception of the natural recovery remedy, none of the existing alternatives in the 2002 Analysis of Alternatives Report is currently more probable than the others, and the results of the ROPS are necessary to revise the scope and estimated cost of many of the current alternatives.

The EPA's ultimate selection of a remedy could result in additional liability. Alcoa may be required to record a subsequent reserve adjustment at the time the EPA's Record of Decision is issued.

**Sherwin, Texas.** In connection with the sale of the Sherwin alumina refinery in Texas, which was required to be divested as part of the Reynolds merger in 2000, Alcoa has agreed to retain responsibility for the remediation of then existing environmental conditions, as well as a pro rata share of the final closure of the active waste disposal areas, which remain in use. Alcoa's share of the closure costs is proportional to the total period of operation of the active waste disposal areas. Alcoa estimated its liability for the active disposal areas by making certain assumptions about the period of operation, the amount of material placed in the area prior to closure, and the appropriate technology, engineering, and regulatory status applicable to final closure. The most probable cost for remediation has been reserved. It is reasonably possible that an additional liability, not expected to exceed \$75, may be incurred if actual experience varies from the original assumptions used.

Based on the foregoing, it is possible that Alcoa's results of operations, in a particular period, could be materially affected by matters relating to these sites. However, based on facts currently available, management believes that adequate reserves have been provided and that the disposition of these matters will not have a materially adverse effect on the financial position or liquidity of the company.

Alcoa's remediation reserve balance at the end of 2004 and 2003 was \$391 and \$395 (of which \$73 and \$65 were classified as a current liability), respectively, and reflects the most probable costs to remediate identified environmental conditions for which costs can be reasonably estimated. Remediation expenses charged to the reserve were approximately \$46 in 2004, \$32 in 2003, and \$50 in 2002. These amounts include expenditures currently mandated, as well as those not required by any regulatory authority or third party. The reserve balance was increased by \$42 in 2004, primarily for the additional reserve recorded for the Grasse River site. In 2003, the reserve balance was reduced by approximately \$9, primarily for adjustments based on recent assessments of remaining work required at certain sites.

Included in annual operating expenses are the recurring costs of managing hazardous substances and environmental programs. These costs are estimated to be about 2% of cost of goods sold.

## **Z. Subsequent Events**

On January 4, 2005, Alcoa and BHP Billiton completed the sale of their interests in Integris Metals Inc., a metals distribution joint venture in which Alcoa and BHP Billiton each owned a 50% interest. The investment was sold for \$410 in cash plus assumption of Integris' debt, which was approximately \$234. Alcoa received cash of \$205. There was no material gain or loss recorded on the transaction.

On January 31, 2005, Alcoa completed its acquisition of two fabricating facilities in Samara and Belaya Kalitva in the Russian Federation. The facilities were purchased from RUSAL for \$257 in cash. These assets provide a wide product breadth that supports Alcoa's growth plans in the commercial transportation, aerospace, automotive, and packaging markets.

On February 8, 2005, Alcoa received a tender offer from Orkla ASA to purchase its 46.5% stake in Norwegian metal group Elkem ASA. Alcoa is currently in the process of evaluating the offer, which remains open through March 8, 2005.

## Supplemental Financial Information

### Quarterly Data (unaudited)

(dollars in millions, except per-share amounts)

	First	Second	Third	Fourth	Year
<b>2004</b>					
Sales	\$5,588	\$5,971	\$5,878	\$6,041	\$23,478
Income from continuing operations	353	405	299	345	1,402
Income (loss) from discontinued operations (B)	2	(1)	(16)	(77)	(92)
Net income*	355	404	283	268	1,310
Earnings (loss) per share:					
Basic:					
Income from continuing operations	.41	.46	.34	.40	1.61
Loss from discontinued operations	—	—	(.02)	(.09)	(.11)
Net income	.41	.46	.32	.31	1.50
Diluted:					
Income from continuing operations	.41	.46	.34	.39	1.60
Loss from discontinued operations	—	—	(.02)	(.09)	(.11)
Net income	.41	.46	.32	.30	1.49

The financial information for all periods presented has been reclassified to reflect assets held for sale and discontinued operations. See Note B to the Consolidated Financial Statements for further information.

\* After restructuring and other charges reflecting income of \$41 in 2004 (Note D)

	First	Second	Third	Fourth	Year
<b>2003</b>					
Sales	\$5,048	\$5,393	\$5,234	\$5,417	\$21,092
Income from continuing operations	202	221	290	342	1,055
Loss from discontinued operations (B)	(4)	(5)	(10)	(51)	(70)
Cumulative effect of accounting change (C)	(47)	—	—	—	(47)
Net income*	151	216	280	291	938
Earnings (loss) per share:					
Basic:					
Income from continuing operations	.24	.26	.34	.39	1.23
Loss from discontinued operations	(.01)	—	(.01)	(.06)	(.08)
Cumulative effect of accounting change	(.06)	—	—	—	(.06)
Net income	.17	.26	.33	.33	1.09
Diluted:					
Income from continuing operations	.24	.26	.34	.39	1.22
Loss from discontinued operations	(.01)	—	(.01)	(.06)	(.08)
Cumulative effect of accounting change	(.06)	—	—	—	(.06)
Net income	.17	.26	.33	.33	1.08

The financial information for all periods presented has been reclassified to reflect assets held for sale and discontinued operations. See Note B to the Consolidated Financial Statements for further information.

\* After restructuring and other charges reflecting income of \$25 in the fourth quarter (Note D)

### Number of Employees (unaudited)

	2004	2003	2002
U.S.	47,800	49,300	53,500
Other Americas	35,200	35,300	38,200
Europe	28,500	27,700	28,300
Pacific	7,500	7,700	7,000
	<u>119,000</u>	<u>120,000</u>	<u>127,000</u>

## Shareowner Information

### Annual Meeting

The annual meeting of shareowners will be at 9:30 a.m. Friday, April 22, 2005 at the Westin Convention Center Hotel Pittsburgh.

### Company News

Visit [www.alcoa.com](http://www.alcoa.com) for Securities and Exchange Commission (SEC) filings, quarterly earnings reports, and other company news.

Copies of the annual report and Forms 10-K and 10-Q may be requested at no cost at [www.alcoa.com](http://www.alcoa.com) or by writing to Corporate Communications at the corporate center address.

### Investor Information

Security analysts and investors may write to Director – Investor Relations at 390 Park Avenue, New York, NY 10022-4608, call 1 212 836 2674, or email [investor.relations@alcoa.com](mailto:investor.relations@alcoa.com).

### Other Publications

For more information on Alcoa Foundation and Alcoa community investments, visit [www.alcoa.com](http://www.alcoa.com) under “community.”

For Alcoa’s 2004 Sustainability Report, visit [www.alcoa.com](http://www.alcoa.com) or write Director – Sustainable Development, 390 Park Avenue, New York, NY 10022-4608 or email [sustainability@alcoa.com](mailto:sustainability@alcoa.com).

### Dividends

Alcoa’s objective is to pay common stock dividends at rates competitive with other investments of equal risk and consistent with the need to reinvest earnings for long-term growth. To support this objective, Alcoa pays a quarterly dividend of 15 cents per common share and 93.75 cents per preferred share. Quarterly dividends are paid to shareowners of record at each quarterly distribution date.

### Dividend Reinvestment

The company offers a Dividend Reinvestment and Stock Purchase Plan for shareowners of Alcoa common and preferred stock. The plan allows shareowners to reinvest all or part of their quarterly dividends in shares of Alcoa common stock. Shareowners also may purchase additional shares under the plan with cash contributions. The company pays brokerage commissions and fees on these stock purchases.

### Direct Deposit of Dividends

Shareowners may have their quarterly dividends deposited directly to their checking, savings, or money market accounts at any financial institution that participates in the Automated Clearing House (ACH) system.

### Shareowner Services

Shareowners with questions on account balances, dividend checks, reinvestment, or direct deposit; address changes; lost or misplaced stock certificates; or other shareowner account matters may contact Alcoa’s stock transfer agent, registrar, and dividend disbursing agent:

Equiserve Trust Company, N.A.  
P.O. Box 43069  
Providence, RI 02940-3069

Telephone Response Center:  
1 800 317 4445  
Outside U.S. and Canada:  
1 781 575 2724

Internet: [www.equiserve.com](http://www.equiserve.com)  
Telecommunications Device for the Deaf (TDD): 1 800 952 9245

For shareowner questions on other matters related to Alcoa, write to Donna C. Dabney, Office of the Secretary, 390 Park Avenue, New York, NY 10022-4608 or call 1 412 553 4707.

### Stock Listing

Common: New York Stock Exchange and exchanges in Australia, Belgium, Germany, Switzerland, and the United Kingdom Preferred: American Stock Exchange  
Ticker symbol: AA

### Quarterly Common Stock Information

Quarter	2004			2003		
	High	Low	Dividend	High	Low	Dividend
First	\$39.44	\$32.60	\$ .15	\$24.75	\$18.45	\$ .15
Second	36.60	28.51	.15	27.22	18.86	.15
Third	33.70	29.44	.15	29.50	24.00	.15
Fourth	34.99	30.63	.15	38.92	26.27	.15
Year	\$39.44	\$28.51	\$ .60	\$38.92	\$18.45	\$ .60

### Common Share Data

	Estimated number of shareowners*	Average shares outstanding (000)
2004	295,000	869,907
2003	278,400	853,352
2002	273,000	845,439
2001	266,800	857,990
2000	265,300	814,229

\* These estimates include shareowners who own stock registered in their own names and those who own stock through banks and brokers.



**Corporate Center**

Alcoa

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Alcoa Inc. is incorporated in the Commonwealth of Pennsylvania.

**SUBSIDIARIES AND EQUITY ENTITIES OF THE REGISTRANT**  
**(As of December 31, 2004)**  
**(Reported Under Item 601 of Regulation S-K)**

Name	State or Country of Organization
Alcoa Closures Holding Company LLC	Delaware
Alcoa Closure Systems Japan, Ltd.	Japan
Alcoa Domestic LLC	Delaware
Alcoa Closure Systems International, Inc.	Delaware
Alcoa Home Exteriors, Inc.	Ohio
Alcoa Laudel, Inc.	Delaware
Alcoa Securities Corporation	Delaware
Alcoa Materials Management, Inc.	Delaware
Alcoa Remediation Management, Inc.	Delaware
Alcoa Fujikura Ltd.	Delaware
Alcoa Fujikura GmbH	Germany
AFL Network Services-Southeast, L.L.C.	Delaware
Pimalco, Inc.	Arizona
Tifton Aluminum Company, Inc.	Delaware
Howmet International Inc.	Delaware
Howmet Holdings Company	Delaware
Alcoa International Holdings Company	Delaware
Abalco S.A.	Brazil
AIHC Export, Ltd.	Barbados
Alcoa Luxembourg S.à.r.l.	Luxembourg
Alcoa Europe Holding B.V.	Netherlands
Alcoa Europe S.A.	Switzerland
Howmet SAS	France
Alcoa Holding France SAS	France
Alcoa Architectural Products SAS	France
Norsk Alcoa A/S	Norway
Alcoa Automotive Castings Scandinavian Casting Center ANS	Norway
Alcoa Inversiones Espana SL <sup>1</sup>	Spain
Alcoa Automotive GmbH	Germany
Alcoa Inespal, S.A.	Spain
Alúmina Española, S.A.	Spain
Aluminio Español, S.A.	Spain
Alcoa Servizi S.p.A.	Italy
Alcoa Inversiones Internacionales SL	Spain
Alcoa-Köfém Kft	Hungary
RSAM Participacoes Ltda.	Brazil
Alcoa Aluminio S.A.	Brazil

Name	State or Country of Organization
Alcoa Inter-America, Inc.	Delaware
Alcoa of Australia Limited	Australia
Alcoa UK Holdings Limited	United Kingdom
Alcoa Manufacturing (G.B.) Limited	United Kingdom
Baco Consumer Products Limited	United Kingdom
UK Aluminium Holdings Limited	United Kingdom
British Aluminium Limited	United Kingdom
Alcoa Latin American Holdings Corporation	British Virgin Islands
Alcoa Power Generating Inc. <sup>2</sup>	Tennessee
Alcoa (Shanghai) Aluminum Products Company Limited	China
Alcoa World Alumina LLC <sup>3</sup>	Delaware
AAC Holdings Company	Delaware
Alcoa Steamship Company, Inc.	New York
Alcoa Minerals of Jamaica, L.L.C.	Delaware
Halco (Mining) Inc.	Delaware
Boke Investment Company	Delaware
Compagnie des Bauxites de Guinée	Delaware
Suriname Aluminum Company, L.L.C.	Delaware
Alumax Inc.	Delaware
Alcoa Extrusions, Inc.	Pennsylvania
Alumax Mill Products, Inc.	Delaware
Aluminerie Luralco, Inc.	Delaware
Alcoa-Luralco Management Company	Nova Scotia
Alcoa-Aluminerie de Deschambault G.P.	Quebec
Alcoa-Luralco Holdings Company	Nova Scotia
Eastalco Aluminum Company	Delaware
Intalco Aluminum Corporation	Delaware
Kawneer Company, Inc.	Delaware
Cordant Technologies Holding Company	Delaware
Alcoa Global Fasteners, Inc.	Delaware
Huck International Inc.	Delaware

Name	State or Country of Organization
Reynolds Metals Company	Delaware
Alcoa Aluminium Deutschland, Inc.	Delaware
Alcoa Flexible Packaging LLC	
Reynolds International, Inc.	Delaware
RMCC Company	Delaware
Alcoa Canada Ltd.	Quebec
Alcoa Ltd.	Quebec
Reynolds International do Brasil Participacoes, Ltda.	Brazil
Reynolds Bécancour, Inc.	Delaware
RB Sales Company, Limited	Delaware
Reynolds Consumer Products, Inc.	
Reynolds Food Packaging LLC	
RMC Delaware, Inc.	Delaware
Southern Graphic Systems, Inc.	Kentucky
RMC Properties, Ltd.	Delaware
Saint George Insurance Company	Vermont

<sup>1</sup> Effective April 2, 2004, the name of the company was changed from Alcoa Transformacion SL to Alcoa Inversiones Espana SL.

<sup>2</sup> Registered to do business in Tennessee under the names Tapoco and APG Trading, in Indiana under the name of AGC, in North Carolina under the names of Yadkin and Tapoco, in New York under the name of Long Sault and in Washington under the name of Colockum.

<sup>3</sup> Registered to do business in Alabama, Arkansas, California, Florida, Georgia, Louisiana, North Carolina, Pennsylvania and Texas under the name of Alcoa World Chemicals.

The names of a number of subsidiaries and equity entities have been omitted because considered in the aggregate they would not constitute a significant subsidiary.

**CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

We hereby consent to the incorporation by reference in the Registration Statement on Form S-3 (Nos. 333-74874 and 333-107926) and Form S-8 (Nos. 33-22346, 33-24846, 33-49109, 33-60305, 333-27903, 333-62663, 333-79575, 333-32516, 333-36208, 333-36214, 333-37740, 333-39708, 333-106411 and 333-115717) of Alcoa Inc. of our report dated February 18, 2005 relating to the financial statements, management's assessment of the effectiveness of internal control over financial reporting and the effectiveness of internal control over financial reporting, which appears in the Annual Report to Shareholders, which is incorporated in this Annual Report on Form 10-K. We also consent to the incorporation by reference of our report dated February 18, 2005 relating to the financial statement schedule which appears in this Form 10-K.

/s/ PricewaterhouseCoopers LLP

Pittsburgh, Pennsylvania  
February 18, 2005

**POWER OF ATTORNEY**

KNOW ALL PERSONS BY THESE PRESENTS that each of the undersigned Directors of Alcoa Inc. (the "Company") hereby constitutes and appoints RICHARD B. KELSON, WILLIAM B. PLUMMER, CHARLES D. MCLANE, JR. and DONNA C. DABNEY, or any of them, his or her true and lawful attorneys-in-fact and agents, with full power of substitution, to do any and all acts and things and to execute any and all instruments which said attorneys-in-fact and agents, or any of them, may deem necessary or advisable or may be required:

(1) To enable the Company to comply with the Securities Exchange Act of 1934, as amended (the "1934 Act"), and any rules, regulations or requirements of the Securities and Exchange Commission (the "Commission") in respect thereof, in connection with the filing under the 1934 Act of the Company's Annual Report on Form 10-K for the year ended December 31, 2004 (the "2004 Annual Report"), including specifically, but without limiting the generality of the foregoing, power and authority to sign the name of each of the undersigned in the capacity of Director of the Company to the 2004 Annual Report to be filed with the Commission and to any instruments or documents filed as part of or in connection with the 2004 Annual Report, including any amendments or supplements thereto;

(2) To enable the Company to comply with the Securities Act of 1933, as amended (the "1933 Act"), and any rules, regulations or requirements of the Commission in respect thereof, in connection with the registration under the 1933 Act during 2005 of the offer and sale or delivery of shares of common stock of the Company to be issued under the 2004 Alcoa Stock Incentive Plan (the "2004 Plan") or the Alcoa Stock Incentive Plan (the "Stock Incentive Plan"), including specifically, but without limiting the generality of the foregoing, power and authority to sign the name of each of the undersigned in the capacity of Director of the Company to any registration statement on Form S-8, or on such other form as may be appropriate, to be filed with the Commission in respect of said shares and the 2004 Plan or the Stock Incentive Plan, or either of them, to any and all pre-effective amendments, post-effective amendments and supplements to any such registration statement, and to any instruments or documents filed as part of or in connection with any such registration statement or any such amendments or supplements thereto; and

(3) To enable the Company to comply with the 1933 Act, and any rules, regulations or requirements of the Commission in respect thereof, in connection with the registration under the 1933 Act during 2005 of the offer and sale or delivery of up to 15 million shares of common stock of the Company to be issued under the Company's employee savings plans (together with interests in such plans), including, without limitation, the Alcoa Savings Plan for Bargaining Employees, the Alcoa Savings Plan for Non-Bargaining Employees, the Alcoa Savings Plan for Subsidiary and Affiliate Employees, and employee savings plans sponsored by entities acquired by the Company from time to time (the "Plans"), including specifically, but without limiting the generality of the foregoing, power and authority to sign the name of each of the undersigned in the capacity of Director of the Company to any registration statement on Form S-8, or on such other form as may be appropriate, to be filed with the Commission in respect of said shares and the Plans, or any of them, to any and all pre-effective amendments, post-effective amendments and supplements to any such registration statement, and to any instruments or documents filed as part of or in connection with any such registration statement or any such amendments or supplements thereto; and

granting unto each of said attorneys-in-fact and agents full power and authority to do and perform each and every act and thing requisite and necessary to be done, as fully to all intents and purposes as the undersigned might or could do in person, and each of the undersigned hereby ratifies and confirms all that said attorneys-in-fact and agents, or any of them, shall do or cause to be done by virtue hereof.

IN WITNESS WHEREOF, each of the undersigned has subscribed these presents this 14<sup>th</sup> day of January, 2005.

/s/ Kathryn S. Fuller

Kathryn S. Fuller

/s/ Carlos Ghosn

Carlos Ghosn

/s/ Joseph T. Gorman

Joseph T. Gorman

/s/ Judith M. Gueron

Judith M. Gueron

/s/ Sir Ronald Hampel

Sir Ronald Hampel

/s/ Klaus Kleinfeld

Klaus Kleinfeld

/s/ Henry B. Schacht

Henry B. Schacht

/s/ Franklin A. Thomas

Franklin A. Thomas

/s/ Ernesto Zedillo

Ernesto Zedillo

### Certifications

I, Alain J.P. Belda, Chairman of the Board and Chief Executive Officer of Alcoa Inc., certify that:

1. I have reviewed this annual report on Form 10-K of Alcoa Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
  - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
  - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
  - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
  - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
  - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
  - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 18, 2005

/s/ ALAIN J.P. BELDA

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Title: Chairman of the Board and  
Chief Executive Officer



## Certifications

I, Richard B. Kelson, Executive Vice President and Chief Financial Officer of Alcoa Inc., certify that:

1. I have reviewed this annual report on Form 10-K of Alcoa Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
  - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
  - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
  - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
  - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
  - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
  - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 18, 2005

/s/ RICHARD B. KELSON

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Title: Executive Vice President and  
Chief Financial Officer

**Certification**  
**Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002**

Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (subsections (a) and (b) of Section 1350, Chapter 63 of Title 18, United States Code), each of the undersigned officers of Alcoa Inc., a Pennsylvania corporation (the "Company"), does hereby certify that:

The Annual Report on Form 10-K for the year ended December 31, 2004 (the "Form 10-K") of the Company fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934 and information contained in the Form 10-K fairly presents, in all material respects, the financial condition and results of operations of the Company.

Dated: February 18, 2005

/s/ ALAIN J.P. BELDA

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Name: Alain J.P. Belda  
Title: Chairman of the Board and Chief Executive Officer

Dated: February 18, 2005

/s/ RICHARD B. KELSON

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Name: Richard B. Kelson  
Title: Executive Vice President and Chief Financial Officer

A signed original of this written statement required by Section 906, or other document authenticating, acknowledging, or otherwise adopting the signature that appears in typed form within the electronic version of this written statement required by Section 906, has been provided to the Company and will be retained by the Company and furnished to the Securities and Exchange Commission or its staff upon request.

The foregoing certification is being furnished to the Securities and Exchange Commission as an exhibit to the Form 10-K and shall not be considered filed as part of the Form 10-K.