Alcoa World Alumina and Chemicals

(Majority owned by Alcoa Corporation)

Combined Financial Statements and Supplementary Combining Information December 31, 2019 and 2018 and for Each of the Three Years in the Period Ended December 31, 2019

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(Majority owned by Alcoa Corporation)
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Report of Independent Auditors

To the Members of the Strategic Council of
Alcoa World Alumina and Chemicals
(Majority-owned by Alcoa Corporation)

We have audited the accompanying combined financial statements of Alcoa World Alumina and Chemicals ("AWAC" or the "Company"), which comprise the combined balance sheets as of December 31, 2019 and 2018 and the related combined statements of income, comprehensive income (loss), cash flows, and changes in members' equity, for each of the three years in the period ended December 31, 2019.

Management's Responsibility for the Combined Financial Statements

Management is responsible for the preparation and fair presentation of the combined financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of combined financial statements that are free from material misstatement, whether due to fraud or error.

Auditors' Responsibility

Our responsibility is to express an opinion on the combined financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the combined financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the combined financial statements. The procedures selected depend on our judgment, including the assessment of the risks of material misstatement of the combined financial statements, whether due to fraud or error. In making those risk assessments, we consider internal control relevant to the Company's preparation and fair presentation of the combined financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the combined financial statements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the combined financial statements referred to above present fairly, in all material respects, the financial position of AWAC as of December 31, 2019 and 2018, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2019 in accordance with accounting principles generally accepted in the United States of America.

Emphasis of Matter

As discussed in Note A to the combined financial statements, the Company changed the manner in which it accounts for certain inventories from last-in, first out (LIFO) to average cost and the manner in which it accounts for leases, respectively, in 2019.

PricewaterhouseCoopers LLP

Pittsburgh, Pennsylvania
March 12, 2020

Alcoa World Alumina and Chemicals
(Majority owned by Alcoa Corporation)
Combined Balance Sheets
December 31, 2019 and 2018

(U.S. dollars in millions)	2019	2018
Assets		
Current assets		
Cash and cash equivalents	$ 418.7	$ 740.3
Receivables from customers	185.5	281.6
Related party receivables (I)	60.9	146.2
Other receivables	26.4	69.7
Inventories (D)	518.8	565.4
Fair value of derivative contracts (M)	58.2	70.3
Prepaid expenses and other current assets	107.0	65.7
Total current assets	1,375.5	1,939.2
Properties, plants and equipment, net (E and J)	3,138.0	3,317.2
Investments (F)	458.6	433.6
Deferred income taxes (L)	225.6	242.3
Fair value of derivative contracts (M)	17.7	41.9
Gas supply prepayment (O)	437.1	458.1
Other noncurrent assets (G)	710.9	718.5
Total assets	$ 6,363.4	$ 7,150.8
Liabilities		
Current liabilities		
Short-term borrowings and current portion of long term debt (H)	$ 0.5	$ 0.4
Accounts payable, trade	490.5	556.3
Accounts payable, related party (I)	57.6	67.6
Accrued compensation and retirement costs	185.9	175.6
Taxes, including taxes on income	58.3	365.7
Fair value of derivative contracts (M)	11.2	15.0
Other current liabilities	198.2	165.9
Total current liabilities	1,002.2	1,346.5
Long term debt, less amount due within one year (H)	78.2	84.4
Accrued pension benefits (K)	75.9	71.2
Accrued other postretirement benefits (K)	54.1	54.7
Deferred alumina sales revenue (A)	52.3	60.7
Fair value of derivative contracts (M)	6.0	23.5
Deferred income taxes (L)	168.0	180.6
Asset retirement obligations (C)	453.3	381.4
Other noncurrent liabilities and deferred credits	198.3	80.4
Total liabilities	2,088.3	2,283.4
Contingencies and commitments (O)		
Members' equity		
Members' equity	6,641.8	7,125.2
Accumulated other comprehensive loss (S)	(2,366.7)	(2,257.8)
Total members' equity	4,275.1	4,867.4
Total liabilities and members' equity	$ 6,363.4	$ 7,150.8

The accompanying notes are an integral part of these combined financial statements.

Alcoa World Alumina and Chemicals
(Majority owned by Alcoa Corporation)
Combined Statements of Income
Years Ended December 31, 2019, 2018 and 2017

(U.S. dollars in millions)	2019	2018	2017
Revenues			
Sales	$ 3,771.8	$ 4,814.7	$ 3,692.3
Sales to related parties (I)	1,444.0	1,934.7	1,581.7
	5,215.8	6,749.4	5,274.0
Costs and expenses			
Cost of goods sold (exclusive of expenses below)	3,537.6	3,991.4	3,523.9
Selling, general administrative, and other expenses	105.2	99.5	75.3
Research and development expenses	16.6	13.9	13.2
Provision for depreciation, depletion and amortization	306.0	290.4	274.5
Restructuring and other charges (Q)	294.8	84.8	10.0
Interest expense	3.7	6.5	1.1
Other (income) expense, net (R)	(8.0)	(78.6)	31.0
	4,255.9	4,407.9	3,929.0
Income before income taxes	959.9	2,341.5	1,345.0
Provision for taxes on income (L)	394.8	701.3	443.7
Net income	$ 565.1	$ 1,640.2	$ 901.3

The accompanying notes are an integral part of these combined financial statements.

Alcoa World Alumina and Chemicals
(Majority owned by Alcoa Corporation)
Combined Statements of Comprehensive Income (Loss)
Years Ended December 31, 2019, 2018 and 2017

(U.S. dollars in millions)	2019	2018	2017
Net income	$ 565.1	$ 1,640.2	$ 901.3
Other comprehensive (loss) income			
Foreign currency translation adjustments	(71.0)	(587.8)	232.2
Change in unrecognized gains (losses) and prior service cost related to pension and other postretirement benefit plans, net of tax	(28.1)	3.9	29.7
Unrecognized (losses) gains on cash flow hedges, net of tax	(9.8)	(21.3)	67.6
Total other comprehensive (loss) income	(108.9)	(605.2)	329.5
Comprehensive income	$ 456.2	$ 1,035.0	$ 1,230.8

The accompanying notes are an integral part of these combined financial statements.

Alcoa World Alumina and Chemicals
(Majority owned by Alcoa Corporation)
Combined Statements of Cash Flows
Years Ended December 31, 2019, 2018 and 2017

(U.S. dollars in millions)	2019	2018	2017
Cash from operations			
Net income	$ 565.1	$ 1,640.2	$ 901.3
Adjustments to reconcile net loss to cash from operations			
Depreciation, depletion and amortization	306.0	290.4	274.5
Deferred income taxes	(4.3)	(5.1)	112.8
Equity earnings, net of dividends	(23.7)	(38.3)	7.4
Restructuring and other charges (Q)	294.8	84.8	10.0
Stock-based compensation	3.9	3.9	3.1
Other	(7.3)	22.5	18.0
Changes in assets and liabilities, excluding effects of foreign currency translation adjustments			
Decrease (Increase) in receivables	219.2	14.4	(129.0)
Decrease (Increase) in inventories	41.8	(90.2)	(67.6)
(Increase) Decrease in prepaid expenses and other current assets	(42.5)	(0.1)	0.1
(Decrease) Increase in accounts payable and accrued expenses	(84.7)	(78.1)	98.3
(Decrease) Increase in taxes, including taxes on income	(307.1)	205.7	131.3
Net change in noncurrent assets and liabilities, and other	(54.9)	(80.5)	(257.8)
Cash provided from operations	906.3	1,969.6	1,102.4
Financing activities			
Net change in short-term borrowings (original maturities of three months or less) (H)	0.1	(4.2)	2.4
Payments on debt (original maturities greater than three months)	(6.0)	-	(1.1)
Additions to debt (original maturities greater than three months)	-	67.5	15.0
Capital contributions	127.5	445.9	274.0
Dividends paid and return of capital to members	(1,179.8)	(2,067.9)	(857.1)
Cash used for financing activities	(1,058.2)	(1,558.7)	(566.8)
Investing activities			
Capital expenditures	(176.9)	(234.1)	(191.6)
Proceeds from sale of assets	3.7	-	9.0
Cash used for investing activities	(173.2)	(234.1)	(182.6)
Effect of exchange rate changes on cash and cash equivalents	3.5	(68.4)	27.7
Net change in cash and cash equivalents	(321.6)	108.4	380.7
Cash and cash equivalents			
Beginning of year	740.3	631.9	251.2
End of year	$ 418.7	$ 740.3	$ 631.9

The accompanying notes are an integral part of these combined financial statements.

Alcoa World Alumina and Chemicals
(Majority owned by Alcoa Corporation)
Combined Statements of Changes in Members' Equity
Years Ended December 31, 2019, 2018 and 2017

(U.S. dollars in millions)	Members' Equity	Accumulated Other Comprehensive Loss	Total Members' Equity
Balances at December 31, 2016	$ 6,781.8	$ (1,982.1)	$ 4,799.7
Net income	901.3		901.3
Other comprehensive income		329.5	329.5
Capital contributions from members (I)	274.0		274.0
Dividends paid and return of capital to members	(857.1)		(857.1)
Stock-based compensation	3.0		3.0
Balances at December 31, 2017	7,103.0	(1,652.6)	5,450.4
Net income	1,640.2		1,640.2
Other comprehensive loss		(605.2)	(605.2)
Capital contributions from members (I)	445.9		445.9
Dividends paid and return of capital to members	(2,067.9)		(2,067.9)
Stock-based compensation	3.9		3.9
Balances at December 31, 2018	7,125.1	(2,257.8)	4,867.3
Net income	565.1		565.1
Other comprehensive loss		(108.9)	(108.9)
Capital contributions from members (I)	127.5		127.5
Dividends paid and return of capital to members	(1,179.8)		(1,179.8)
Stock-based compensation	3.9		3.9
Balances at December 31, 2019	$ 6,641.8	$ (2,366.7)	$ 4,275.1

The accompanying notes are an integral part of these combined financial statements.

(U.S. dollars in millions)

A. Summary of Significant Accounting Policies

Principles of Combination and Basis of Presentation

The combined financial statements of Alcoa World Alumina and Chemicals ("AWAC" or the "Company") have been prepared pursuant to a Formation Agreement dated December 21, 1994 between Alcoa Corporation, formerly Alcoa Inc. ("Alcoa"), and WMC Limited of Melbourne, Australia ("WMC"), which was amended on September 1, 2016. Effective December 11, 2002, WMC shareholders voted to create two entities, WMC Resources Limited and Alumina Limited, resulting in existing WMC shareholders receiving shares in a new listed entity 'WMC Resources Limited', which holds non AWAC businesses. AWAC consists of a number of affiliated entities that own, operate or have an interest in bauxite mines and alumina refineries, as well as certain aluminum smelters, in seven countries. AWAC is owned 60% by Alcoa and 40% by Alumina Limited.

The combined financial statements are prepared in conformity with accounting principles generally accepted in the United States of America (GAAP). In accordance with GAAP, certain situations require management to make estimates based on judgments and assumptions, which 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 periods. Actual results could differ from those estimates upon subsequent resolution of identified matters. Certain amounts in previously issued financial statements were reclassified to conform to the current period presentation.

The following operating entities represent the combined operations of AWAC and form the basis of the combined financial statements:

Entity	Country
Alcoa World Alumina (AWA) LLC*	United States
Alcoa of Australia	Australia
Alumina Espanola	Spain
AWA Brazil	Brazil
Enterprise Partnership**	Australia
AWA Saudi Limited***	Saudi Arabia

* Alcoa World Alumina LLC holds AWAC's mining and refining interests in the United States, Suriname, and Guinea (collectively referred to as the "Combined LLCs").

** Enterprise Partnership was dissolved effective July 31, 2018. The dissolution did not have a material impact to the Combined Financial Statements.

*** AWA Saudi Limited holds AWAC's investment in a mining and refining operating joint venture in the Kingdom of Saudi Arabia owned 25.1% by AWAC and 74.9% by Saudi Arabian Mining Company ("Ma'aden").

(U.S. dollars in millions)

The combined financial statements have been derived from the books and records of Alcoa. All transactions between entities included in the combined financial statements have been eliminated. The Combined Statements of Income include all items of revenue and income generated by AWAC and all items of expense directly incurred by AWAC. These include expenses charged to AWAC by Alcoa in the normal course of business. The amounts have been allocated on a basis considered reasonable by management using either specific identification or proportional allocations based on usage, headcount or other reasonable methods of allocation. As a result of these allocated amounts, the financial statements of AWAC may not be indicative of the results that would be presented if AWAC had operated as an independent stand-alone entity. The combined financial statements reflect amounts necessary in order to depict the combined financial position, results of operations and cash flows of AWAC on a stand-alone basis. For additional information concerning expenses charged to AWAC by Alcoa see Note I.

Related Party Transactions
AWAC sells alumina to Alcoa. AWAC purchases bauxite from certain entities in which AWAC retains a 50% or less equity interest. Additionally, Alcoa provides employee, administrative and other services to AWAC. For additional information on related party transactions see Note I.

Cash and 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 the cost of inventories principally determined under the average-cost method. See Note D for additional information.

Effective January 1, 2019, AWAC changed its accounting method for valuing its Point Comfort inventories from last-in, first-out (LIFO) to the average cost method. The effects of the change in accounting principle have been retrospectively applied to all prior periods presented with an equally offsetting lower of cost or market reserve recorded in the Combined Financial Statements. The overall impact was immaterial to the Combined Financial Statements.

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. Depreciation is recorded on temporarily idled facilities until such time management approves a permanent closure. The following table details the weighted-average useful lives of structures and machinery and equipment (numbers in years):

	Structures	Machinery and Equipment
Bauxite mining	35	17
Alumina refining	28	29

(U.S. dollars in millions)

Gains or losses from the sale of assets are generally recorded in Other (income) expense, net. Repairs and maintenance are charged to expense as incurred. Properties, plants, and equipment are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of such assets (asset group) may not be recoverable.

Leases

The AWAC determines whether an arrangement is a lease at the inception of the arrangement based on the terms and conditions in the contract. A contract contains a lease if there is an identified asset which the Company has the right to control. Both operating and financing lease right-of-use (ROU) assets are included in Properties, plants, and equipment with the corresponding operating lease liabilities included within Other current liabilities and Other noncurrent liabilities and deferred credits, while financing lease liabilities are included in Long-term debt due within one year and Long-term debt, less amount due within one year on the Combined Balance Sheet.

Operating lease ROU assets and liabilities are recognized at the commencement date based on the present value of lease payments over the lease term. The Company uses its incremental borrowing rate at the commencement date in determining the present value of lease payments unless a rate is implicit in the lease. Lease terms include options to extend the lease when it is reasonably certain that those options will be exercised. Leases with an initial term of 12 months or less, including anticipated renewals, are not recorded on the balance sheet.

The Company has made a policy election not to record any non-lease components of a lease agreement in the lease liability. Variable lease payments are not presented as part of the initial ROU asset or liability recorded at the inception of a contract. Lease expense for operating lease payments is recognized on a straight-line basis over the lease term. For finance leases, interest expense is recognized on the lease liability and the ROU asset is amortized over the lease term.

Equity Investments

AWAC invests in a number of privately-held companies, primarily through joint ventures and consortia, which are accounted for on the equity method. The equity method is applied in situations where AWAC has the ability to exercise significant influence, but not control, over the investee. Management reviews equity investments for impairment whenever certain indicators are present suggesting that the carrying value of an investment is not recoverable.

Deferred Mining Costs

AWAC recognizes deferred mining costs during the development stage of a mine life cycle. Such costs include the construction of access and haul roads, detailed drilling and geological analysis to further define the grade and quality of the known bauxite, and overburden removal costs. These costs relate to sections of the related mines where AWAC is either currently extracting bauxite or is preparing for production in the near term. These sections are outlined and planned incrementally and generally are mined over periods ranging from one to five years, depending on mine specifics. The amount of geological drilling and testing necessary to determine the economic viability of the bauxite deposit being mined is such that the reserves are considered to be proven, and the mining costs are amortized based on this level of reserves. Deferred mining costs are included in Other noncurrent assets on the accompanying Combined Balance Sheet.

(U.S. dollars in millions)

Asset Retirement Obligations
AWAC recognizes asset retirement obligations (AROs) related to legal obligations associated with the standard operation of bauxite mines, alumina refineries, and aluminum smelters. These AROs consist primarily of costs associated with mine reclamation, closure of bauxite residue areas, spent pot lining and regulated waste materials disposal, and landfill closure. Additionally, costs are recorded as AROs upon management's decision to permanently close and demolish certain structures and for any significant lease restoration obligations. The fair values of these AROs are recorded on a discounted basis at the time the obligation is incurred and accreted over time for the change in present value. Additionally, the Company capitalizes asset retirement costs by increasing the carrying amount of the related long-lived assets and depreciating these assets over their remaining useful life. Certain conditional asset retirement obligations (CARO) related to alumina refineries and the aluminum smelter have not been recorded in the Combined Financial Statements due to uncertainties surrounding the ultimate settlement date. The fair value of these asset retirement obligations will be recorded when a reasonable estimate of the ultimate settlement date can be made. If AWAC was required to demolish all such facilities immediately, the estimated CARO as of December 31, 2019 ranges from $2.5 to $9.8 per facility (6 structures) in today's dollars.

Environmental Matters
Environmental related expenditures for current operations are expensed or capitalized, as appropriate. Expenditures relating to existing conditions caused by past operations, which will not contribute to future revenues, are expensed. Liabilities are recorded when remediation costs are probable and can be reasonably estimated. The estimates also include costs related to other potentially responsible parties to the extent that AWAC has reason to believe such parties will not fully pay their proportionate share. In instances where the Company has ongoing monitoring and maintenance responsibilities, it is AWAC's policy to maintain a reserve equal to five years of expected costs. The liability is continuously 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.

Litigation Matters
For asserted claims and assessments, liabilities are recorded when an unfavorable outcome of a matter is deemed to be probable and the loss is reasonably estimable. With respect to unasserted claims or assessments, management must first determine that the probability that an assertion will be made is likely, then, a determination as to the likelihood of an unfavorable outcome and the ability to reasonably estimate the potential loss is made. Legal matters are reviewed on a continuous basis to determine if there has been a change in management's judgment regarding the likelihood of an unfavorable outcome or the estimate of a potential loss. Legal costs, which are primarily for general litigation, environmental compliance, tax disputes, and general corporate matters, are expensed as incurred.

(U.S. dollars in millions)

Revenue Recognition
AWAC recognizes revenue when it satisfies a performance obligation(s) in accordance with the provisions of a customer order or contract. This is achieved when control of the product has been transferred to the customer, which is generally determined when title, ownership, and risk of loss pass to the customer, all of which occurs upon shipment or delivery of the product. The shipping terms vary across all businesses and depend on the product, the country of origin, and the type of transportation. Accordingly, the sale of AWAC's products to its customers represent single performance obligations for which revenue is recognized at a point in time. Revenue is based on the consideration it expects to receive in exchange for its products. Returns and other adjustments have not been material. Based on the foregoing, no significant judgment is required to determine when control of a product has been transferred to a customer.

AWAC considers shipping and handling activities as costs to fulfill the promise to transfer the related products. As a result, customer payments of shipping and handling costs are recorded as a component of revenue. Taxes collected (e.g., sales, use, value-added, excise) from its customers related to the sale of its products are remitted to governmental authorities and excluded from revenue.

Deferred Alumina Sales Revenue
AWAC periodically enters into long-term supply contracts with alumina 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. AWAC recorded a prepayment of $240.0 related to an agreement with a third party customer received in 1997 that is being amortized over the life of the contract based on the tonnage shipped. The amount of the prepayment remaining as deferred revenue at December 31, 2019 and 2018 was $60.3 and $68.7, respectively (of which $8.0 and $8.0 was classified as a current liability). The amount of revenue recognized related to this agreement was $8.4, $7.6 and $7.7, for the years ended December 31, 2019, 2018 and 2017, respectively.

Pension and Other Postretirement Benefits
Liabilities and expenses for pension and other postretirement benefits are determined using actuarial methodologies and incorporate significant assumptions, including the interest rate used to discount the future estimated liability, the expected long-term rate of return on plan assets, and several assumptions relating to the employee workforce (salary increases, health care cost trend rates, retirement age, and mortality). See Note K for additional information.

Derivatives and Hedging
Derivatives are held for purposes other than trading and are part of a formally documented risk management program.

AWAC accounts for hedges of foreign currency exposures and certain forecasted transactions as cash flow hedges. The fair values of the derivatives are recorded as assets and liabilities in the Combined Balance Sheet. The changes in the fair values of these derivatives are recorded in Other comprehensive (loss) income and are reclassified to Sales, Cost of goods sold, or Other (income) expense, net 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 not exceeding five years.

(U.S. dollars in millions)

If no hedging relationship is designated, the derivative is marked to market through Other (income) expense, net.

Cash flows from derivatives are recognized in the Combined Statement of Cash Flows in a manner consistent with the underlying transactions. See Note M for additional information.

Income Taxes

The provision for income taxes is based on a separate return methodology using the asset and liability approach of accounting for income taxes. Under this approach, the provision for income taxes represents income taxes paid or payable (or received or receivable) for the current year plus the change in deferred taxes during the year. Deferred taxes represent the future tax consequences expected to occur when the reported amounts of assets and liabilities are recovered or paid and result from differences between the financial and tax bases of AWAC's assets and liabilities and are adjusted for changes in tax rates and tax laws when enacted.

Valuation allowances are recorded to reduce deferred tax assets when it is more likely than not (greater than 50%) that a tax benefit will not be realized. In evaluating the need for a valuation allowance, management applies judgement in assessing all available positive and negative evidence and considers all potential sources of taxable income, including income available in carryback periods, future reversals of taxable temporary differences, projections of taxable income, and income from tax planning strategies. Positive evidence includes factors such as a history of profitable operations, projections of future profitability within the carryforward period, including from tax planning strategies, and Alcoa's experience with similar operations. Existing favorable contracts and the ability to sell products into established markets are additional positive evidence. Negative evidence includes items such as cumulative losses, projections of future losses, or carryforward periods that are not long enough to allow for the utilization of a deferred tax asset based on existing projections of income. Deferred tax assets for which no valuation allowance is recorded may not be realized upon changes in facts and circumstances, resulting in a future charge to establish a valuation allowance. Existing valuation allowances are re-examined under the same standards of positive and negative evidence. If it is determined that it is more likely than not that a deferred tax asset will be realized, the appropriate amount of the valuation allowance, if any, is released. Deferred tax assets and liabilities are also re-measured to reflect changes in underlying tax rates due to law changes and the granting and lapse of tax holidays.

Tax benefits related to uncertain tax positions taken or expected to be taken on a tax return are recorded when such benefits meet a more likely than not threshold. Otherwise, these tax benefits are recorded when a tax position has been effectively settled, which means that the statute of limitation has expired or the appropriate taxing authority has completed their examination even though the statute of limitations remains open. Interest and penalties related to uncertain tax positions are recognized as part of the provision for income taxes and are accrued beginning in the period that such interest and penalties would be applicable under relevant tax law until such time that the related tax benefits are recognized.

(U.S. dollars in millions)

AWAC consists of a variety of different tax-paying legal entities. Income taxes are accrued and recorded on the financial statements of entities within AWAC except for entities that are multiple member limited liability companies ("LLCs"). LLC income is taxable to the members that hold the LLC interest (for U.S. federal and most state income tax purposes). Therefore, current and deferred U.S. and most state tax assets and liabilities of the LLCs are recorded in the financial statements of the members and, thus, are not reflected in AWAC's combined financial statements. See Note L for additional information.

Foreign Currency
The local currency is the functional currency for AWAC's significant operations outside the United States, except for certain operations in Suriname where the U.S. dollar is used as the functional currency. The determination of the functional currency for AWAC's operations is made based on the appropriate economic and management indicators. Where local currency is the functional currency, assets and liabilities are translated into U.S. dollars using year-end exchange rates and income and expenses are translated using the average exchange rates for the reporting period. Unrealized foreign currency translation gains and losses are deferred in Accumulated other comprehensive loss on the Combined Balance Sheet.

Recently Adopted Accounting Guidance
On January 1, 2019, AWAC adopted changes issued by the Financial Accounting Standards Board (FASB) to the recognition of revenue from contracts with customers. This guidance created a comprehensive framework for all entities in all industries to apply in the determination of when to recognize revenue, and, therefore, supersedes virtually all existing revenue recognition requirements and guidance. This framework is expected to result in less complex guidance in application while providing a consistent and comparable methodology for revenue recognition. The core principle of the guidance is that an entity should recognize revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. To achieve this principle, an entity should apply the following steps: (i) identify the contract(s) with a customer, (ii) identify the performance obligations in the contract(s), (iii) determine the transaction price, (iv) allocate the transaction price to the performance obligations in the contract(s), and (v) recognize revenue when, or as, the entity satisfies a performance obligation. Management's assessment of this guidance was applied only to those customer contracts that were open on the date of adoption under the modified retrospective method. Through a previously established project team, AWAC completed a detailed review of the terms and provisions of its customer contracts, as well as evaluated these contracts under the new guidance, and concluded that AWAC's revenue recognition practices are in compliance with this framework. Other than providing additional disclosure (see Revenue Recognition above and the Product Information section in Note B), the adoption of this guidance did not have a material impact on the Combined Financial Statements.

On January 1, 2019, AWAC adopted Accounting Standards Update (ASU) No. 2016-02, Leases, issued by the FASB regarding the accounting for leases, using the modified retrospective approach. This ASU requires lessees to recognize a right-of-use asset and lease liability on the balance sheet for operating and finance leases with a term of 12 months or more. Additionally, when measuring assets and liabilities arising from a lease, optional payments should be included only if the lessee is reasonably certain to exercise an option to extend the lease, exercise a purchase option, or not exercise an option to terminate the lease. A right-of-use asset represents an entity's right to use the underlying asset for the lease term, and a lease liability represents an

(U.S. dollars in millions)

entity's obligation to make lease payments. The Company has made a policy election not to record any non-lease components in the lease liability. Previously, an asset and liability were only recorded for leases classified as capital leases (financing leases). The measurement, recognition, and presentation of expenses and cash flows arising from leases by a lessee remains the same. Management elected the package of practical expedients permitted under the transition guidance within the new standard, which among other things, allowed carry forward of historical lease classifications. Additionally, in July 2018, the FASB issued ASU No. 2018-11, Targeted Improvements, to provide for an alternative transition method to the new lease guidance, whereby an entity can choose to not reflect the impact of the new lease guidance in the prior periods included in its financial statements. The Company elected this alternative transition method upon adoption on January 1, 2019. Management also elected the practical expedient related to land easements, allowing the Company to carry forward the current treatment on existing arrangements.

As a result of the adoption, management recorded a right-of-use asset and lease liability, each in the amount of $111.8, on AWAC's Combined Balance Sheet as of January 1, 2019 for several types of operating leases, including land and buildings, alumina refinery process control technology, plant equipment, vehicles, and computer equipment. See Note J for additional information related to the adoption of this standard.

Alcoa's adoption of the following accounting guidance in 2019 did not have a material impact on the Company's Combined Financial Statements:

Accounting Standards Update

2018-01 Leases: Land Easement Practical Expedient for Transition

Recently Issued Accounting Guidance
In December 2019, the FASB issued ASU No. 2019-12, Income Taxes (Topic 740) which is intended to simply the accounting for income taxes by eliminating certain exceptions and simplifying certain requirements under Topic 740. Updates are related to intraperiod tax allocation, deferred tax liabilities for equity method investments, interim period tax calculations, tax laws or rate changes in interim periods, and income taxes related to employee stock ownership plans. The guidance for ASU No. 2019-12 becomes effective for AWAC on January 1, 2022. Management is currently evaluating the impact of these changes on the Combined Financial Statements.

In August 2018, the FASB issued separate guidance regarding the respective disclosure requirements associated with fair value measurements and defined benefit plans. This guidance makes changes to the disclosures of fair value measurements and defined benefit plans through several removals, modifications, additions, and/or clarifications of the existing requirements. The following are the changes that will have an immediate disclosure impact for Alcoa upon adoption of the guidance for fair value measurements: (i) disclosure of the valuation processes for Level 3 fair value measurements is no longer required, (ii) changes in unrealized gains and losses for the reporting period included in other comprehensive income (loss) for recurring Level 3 fair value measurements held at the end of the reporting period is a new disclosure requirement, and (iii) the range and weighted average (or other reasonable and rational method) of significant unobservable inputs used to develop Level 3 fair value measurements is a new disclosure requirement. The following are the changes that will have an immediate disclosure impact for the Company upon adoption of the guidance for defined benefit plans: (i) disclosure of the amounts in accumulated

(U.S. dollars in millions)

other comprehensive income (loss) expected to be recognized as components of net periodic benefit cost over the next fiscal year is no longer required, (ii) disclosure of the effects of a one-percentage-point change in assumed health care cost trend rates on both the aggregate of the service and interest cost components of net periodic benefit costs and the benefit obligation for postretirement health care benefits is no longer required, and (iii) an explanation of the reasons for significant gains and losses related to changes in the benefit obligation for the reporting period is a new disclosure requirement. The guidance for fair value measurements and defined benefit plans becomes effective for the Company on January 1, 2020 and December 31, 2020, respectively, with early adoption permitted. Other than updating the applicable disclosures, the adoption of this guidance will not have an impact on the Company's Combined Financial Statements.

In August 2018, the FASB issued ASU No. 2018-15, Intangibles - Goodwill and Other - Internal-Use Software. This ASU aligns the accounting for cloud computing implementation costs with that of costs to develop or obtain internal-use software, meaning such costs that are part of the application development stage are capitalized as an asset and amortized over the term of the arrangement, otherwise, such costs are expensed as incurred. It also clarifies the classification of amounts related to capitalized implementation costs in the financial statements. This guidance becomes effective for the Company on January 1, 2021, with early adoption permitted. Management has completed its assessment of the impact related to this guidance and concluded that the adoption of this guidance will not have a material impact on the Company's Combined Financial Statements.

In June 2016, the FASB issued ASU No. 2016-13, Financial Instruments - Credit Losses. This ASU added a new impairment model (known as the current expected credit loss (CECL) model) that is based on expected losses rather than incurred losses. Under the new guidance, an entity recognizes an allowance for its estimate of expected credit losses and applies to most debt instruments, trade receivables, lease receivables, financial guarantee contracts, and other loan commitments. The CECL model does not have a minimum threshold for recognition of impairment losses and entities will need to measure expected credit losses on assets that have a low risk of loss. These changes become effective for the Company on January 1, 2021, with early adoption permitted. Management has completed its assessment of the impact related to this guidance and concluded that the adoption of this guidance will not have a material impact on the Company's Combined Financial Statements.

B. Nature of Operations

AWAC is owned 60% by Alcoa and 40% by Alumina Limited and consists principally of bauxite, alumina and alumina-based chemicals businesses and investments managed and contributed by Alcoa. Primarily all bauxite mined by AWAC entities is refined into alumina by AWAC through a chemical process. The alumina is then sold to customers to be smelted into primary aluminum.

Product Information

Bauxite—Bauxite is a reddish clay rock that is mined from the surface of the earth's terrain. This ore is the basic raw material used to produce alumina and is the primary source of aluminum.

(U.S. dollars in millions)

Alumina—Alumina is an oxide that is extracted from bauxite and is the basic raw material used to produce primary aluminum. This product can also be consumed for non-metallurgical purposes, such as industrial chemical products.

Primary aluminum—Primary aluminum is metal in the form of a common alloy ingot.

The following table represents the general commercial profile of AWAC's Bauxite, Alumina and Primary aluminum sales:

Product Division	Pricing Components	Shipping Terms(3)	Payment Terms(4)
Bauxite	Negotiated	FOB/CIF	LC Sight
Alumina:			
Smelter-grade	API(1) / spot	FOB	LC Sight/CAD/Net 30 days
Non-metallurgical	Negotiated	FOB/CIF	Net 30 days
Primary aluminum:			
Common alloy ingot	LME(2) + Regional premium	DAP/CIF	Net 15 days

1. API (Alumina Price Index) is a pricing mechanism that is calculated by the Company based on the weighted average of a prior month's daily spot prices published by the following three indices: CRU Metallurgical Grade Alumina Price; Platts Metals Daily Alumina PAX Price; and Metal Bulletin Non-Ferrous Metals Alumina Index.

2. LME (London Metal Exchange) is a globally recognized exchange for commodity trading, including aluminum. The LME pricing component represents the underlying base metal component, based on quoted prices for aluminum on the exchange. The regional premium represents the incremental price over the base LME component that is associated with the physical delivery of metal to a particular region (e.g., the Midwest premium for metal sold in the United States).

3. CIF (cost, insurance, and freight) means that the Company pays for these items until the product reaches the buyer's designated destination point related to transportation by vessel. DAP (delivered at place) means the same as CIF related to all methods of transportation. FOB (free on board) means that the Company pays for costs, insurance, and freight until the product reaches the seller's designated shipping point.

4. The net number of days means that the customer is required to remit payment to the Company for the invoice amount within the designated number of days. LC Sight is a letter of credit that is payable immediately (usually within five to ten business days) after a seller meets the requirements of the letter of credit (i.e. shipping documents that evidence the seller performed its obligations as agreed to with a buyer). CAD (cash against documents) is a payment arrangement in which a seller instructs a bank to provide shipping and title documents to the buyer at the time the buyer pays in full the accompanying bill of exchange.

(U.S. dollars in millions)

The following table details AWAC's third-party sales by product division:

	2019	2018	2017
Sales			
Alumina	$ 3,171.2	$ 4,125.5	$ 3,077.9
Bauxite	296.6	269.1	332.6
Primary Aluminum	241.3	348.6	229.7
Other	62.7	71.5	52.1
	$ 3,771.8	$ 4,814.7	$ 3,692.3

	2019	2018	2017
Sales			
Australia	$ 2,606.9	$ 3,400.6	$ 2,582.8
U.S.	1,893.3	2,501.6	1,991.0
Other	715.6	847.2	700.2
Total sales	$ 5,215.8	$ 6,749.4	$ 5,274.0

	2019	2018
Members' Equity		
Australia	$ 2,448.8	$ 2,539.7
Brazil	1,396.6	1,602.4
U.S.	(164.9)	86.4
Other	594.6	638.9
Total net assets	$ 4,275.1	$ 4,867.4

C. Asset Retirement Obligations

AWAC records AROs related to legal obligations associated with the standard operation of bauxite mines, alumina refineries, and aluminum smelters. These AROs consist primarily of costs associated with mine reclamation, closure of bauxite residue areas, spent pot lining disposal, and landfill closure.

(U.S. dollars in millions)

The following table details the changes in the total carrying value of recorded AROs at December 31:

	2019	2018
Balances at beginning of year	$ 457.7	$ 507.1
Accretion expense	14.3	13.2
Liabilities incurred	116.3	23.9
Payments	(61.6)	(50.6)
Translation and other	(1.7)	(35.9)
Balances at end of year	$ 525.0	$ 457.7

Liabilities incurred in 2019 includes $72.0 related to the closure of the Point Comfort alumina refinery, of which $61.7 was recorded in Restructuring and other charges, on the accompanying Combined Statement of Income ($10.3 was recorded as a receivable due from Alcoa Corporation in accordance with the Formation Agreement). See Note Q for additional information.
AROs are recorded in Other current liabilities ($71.7 and $76.3 as of December 31, 2019 and 2018, respectively) and the noncurrent portion is recorded in Asset retirement obligations ($453.3 and $381.4 as of December 31, 2019 and 2018, respectively) on the accompanying Combined Balance Sheet.

D. Inventories

	2019	2018
Finished goods	$ 10.4	$ 4.5
Work-in-process	17.9	42.9
Bauxite and alumina	195.9	195.7
Purchased raw materials	193.6	235.5
Operating supplies	101.0	86.8
	$ 518.8	$ 565.4

As of January 1, 2019 the Company changed its method of valuing its Point Comfort inventories to the average cost of accounting from the LIFO method. Other locations were previously, and continue to be, valued principally using the average cost method. The effects of the change in accounting principle have been retrospectively applied to all prior periods presented with an equally offsetting lower of cost or market reserve recorded in the Combined Financial Statements. The overall impact was immaterial to the Combined Financial Statements.

The effects of the change in accounting principle from LIFO to average cost are immaterial and have been retrospectively applied to all periods presented.

(U.S. dollars in millions)

E. Properties, Plants, and Equipment, Net

	2019	2018
Land and land rights, including mines	$ 156.6	$ 161.1
Structures	3,461.4	3,610.0
Machinery and equipment	4,825.0	4,700.4
	8,443.0	8,471.5
Less: Accumulated depreciation, depletion, and amortization	5,445.4	5,390.4
	2,997.6	3,081.1
Construction work-in-progress	140.4	236.1
	$ 3,138.0	$ 3,317.2

F. Investments

The following tables summarize information of AWAC's equity investments as of December 31, 2019 and 2018:

Investee	Country	Nature of investment	Ownership interest
Ma'aden Bauxite and Alumina Company	Saudi Arabia	Bauxite mine and alumina refinery	25.10%
Halco Mining, Inc.	Guinea	Bauxite mine	45%
Mineração Rio do Norte S.A.	Brazil	Bauxite mine	18.20%

	2019	2018
Ma'aden	$ 257.7	$ 253.1
Halco Mining, Inc.	149.4	135.1
MRN	51.5	45.4
	$ 458.6	$ 433.6

AWAC and Ma'aden, have a 30-year (from December 2009) joint venture shareholders' agreement (automatic extension for an additional 20 years, unless the parties agree otherwise or unless earlier terminated) setting forth the terms for the development, construction, ownership and operation of an integrated aluminum complex in Saudi Arabia, including a bauxite mine and alumina refinery.

(U.S. dollars in millions)

G. Other Noncurrent Assets

	2019	2018
Deferred mining costs, net	$ 124.2	$ 120.1
Prepaid gas transmission contract	281.3	275.0
Value-added tax receivable	167.1	194.9
Prepaid pension benefit (K)	33.0	62.7
Related party receivable (I)	56.5	41.7
Other	48.8	24.1
	$ 710.9	$ 718.5

As part of a previous sale transaction of an equity investment, Alcoa maintained access to approximately 30% of the Dampier to Bunbury Natural Gas Pipeline transmission capacity in Western Australia for gas supply to three alumina refineries. At December 31, 2019 and 2018, AofA had an asset of $281.3 and $275.0, respectively, representing prepayments made under the agreement for future gas transmission services.

The Value-added tax (VAT) credits (federal and state) relate to AWAB and the São Luís refinery. This refinery pays VAT on the purchase of goods and services used in the alumina production process. The credits generally can be utilized to offset the VAT charged on domestic sales of alumina. However, there is not a domestic market in Brazil for the sale of alumina and Alcoa's São Luís smelter has been fully curtailed since April 2015. In the fourth quarter of 2018, management performed an updated assessment of the future realizability of the state VAT credits amid unfavorable market conditions and a lack of a favorable power contract in the near-term for Alcoa's São Luís smelter. As a result, management determined it necessary to establish an allowance on the accumulated state VAT balances and recorded a $77.6 charge in Restructuring and other charges (Note Q) on the accompanying Combined Statement of Income. While the Company retains the ability to utilize the state credits in the future, practically only the restart of Alcoa's São Luís smelter provides the opportunity to monetize these credits. No allowance was established on the federal VAT credits as they can be used to reduce other types of federal tax obligations. The state VAT amounts are expensed to Cost of goods sold as incurred.

H. Short-Term Borrowings, Long-Term Debt and Finance Lease Obligations

Short-term borrowings consist of a loan recorded in Spain for the funding of working capital. Amounts outstanding under this loan were $0.3 and $0.2 at December 31, 2019 and 2018, respectively.

Long-term debt consists of a loan recorded in Spain of $0.8 and $1.2 at December 31, 2019 and 2018, respectively. During 2012, AofA and Alcoa entered into a long-term loan agreement where AofA may borrow up to $300.0 to assist them with managing their daily cash requirements. There was no balance outstanding under this loan as of December 31, 2019 and 2018, respectively.

(U.S. dollars in millions)

On November 5, 2018, AofA entered into an amendment of the existing credit agreement, dated October 26, 2017. The amended agreement provides for a financing commitment of up to $82.5. Principal payments under this amended agreement are not due until 2020 with the ability to extend to a later date. Interest accrues at a rate of Libor plus 85 basis points. Outstanding amounts under this facility at December 31, 2019 and 2018 were $77.0 and $82.5, respectively.

AofA has finance lease obligations recorded, primarily related to mining. Outstanding amounts under these leases classified as short-term are $0.2 and $0.2 at December 31, 2019 and 2018, respectively. Outstanding amounts under these leases classified as long-term are $0.4 and $0.7 at December 31, 2019 and 2018, respectively.

I. Related Party Transactions

Sales to related parties included in the Combined Statements of Income consist of sales of alumina and alumina-based chemicals to Alcoa. The terms for all transactions and agreements between related parties and AWAC are established by negotiation between the parties.

Entities within AWAC have entered into contractual agreements with Alcoa for employee services and administrative services. Total costs incurred by AWAC for these agreements were approximately $60.5 in 2019, $61.6 in 2018 and $51.0 in 2017. AWAC also has a long-term bauxite purchase agreement with an equity investee. Total purchases under this agreement were approximately $164.1, $163.4 and $157.6 during 2019, 2018 and 2017, respectively.

Certain employees of AWAC receive stock-based awards under Alcoa’s stock incentive plans, and AWAC records an expense for these plans. In 2019, 2018 and 2017, AWAC was charged and paid $4.6, $6.8 and $7.7, respectively, for stock option exercises and restricted share unit distributions under Alcoa stock incentive plans. As options are exercised, amounts to reimburse for issuance of shares were reflected as a dividend paid to partners, net of $1.2 in 2019, $1.6 in 2018 and $1.7 in 2017.

AWAC has a noncurrent related party receivable due from Alcoa of $56.5 and $41.7 as of December 31, 2019 and 2018, respectively. This relates to certain environmental remediation and asset retirement obligations that will be reimbursed by Alcoa in accordance with the terms of the Formation Agreement.

During 2019, capital contributions from members of $127.5 were used to fund AWA, LLC and AWA Saudi Ltd.

During 2018, capital contributions from members of $445.9 were used to fund AWA, LLC and AWA Saudi Ltd.

During 2017, capital contributions from members of $274.0 were used to fund AWA, LLC.

(U.S. dollars in millions)

J. Leasing

As a result of the adoption of ASU No. 2016-02, Leases, management recorded a right-of-use asset and lease liability, each in the amount of $111.8, on AWAC's Combined Balance Sheet as of January 1, 2019 for several types of operating leases, including land and buildings, alumina refinery process control technology, plant equipment, vehicles, and computer equipment. These amounts are equivalent to the aggregate future lease payments on a discounted basis. The leases have remaining terms of one to 26 years. Lease expense and operating cash flows for the year ended December 31, 2019, includes costs from operating leases of $39.9, variable lease payments of $10.4, and short-term rental expense of $1.4. New leases of $5.1 were added during 2019. Further, right-of-use assets totaling $6.5 were impaired in 2019 in conjunction with the permanent closure of the Point Comfort alumina refinery (see Note Q). The Company does not have material financing leases.

The following represents the aggregate right-of use assets and related lease obligations as of December 31, 2019:

Amounts recognized in the Combined Balance Sheet at December 31, 2019:	
Properties, plants and equipment, net	$ 73.4
Other current liabilities	34.2
Other noncurrent liabilities and deferred credits	45.9
Total operating lease liabilities	$ 80.1

The weighted average lease term and weighted average discount rate as of December 31, 2019 were as follows:

Weighted average lease term	
Operating leases	4.0 years
Weighted average discount rate	
Operating leases	5.0 %

(U.S. dollars in millions)

The future cash flows related to the operating lease obligations as of December 31, 2019 were as follows:

Year Ending December 31,	Operating leases
2020	$ 37.5
2021	31.2
2022	6.3
2023	2.7
2024	2.4
Thereafter	11.1
Total lease payments (undiscounted)	91.2
Less: discount to net present value	(11.1)
Total	$ 80.1

Disclosures related to periods presented prior to the adoption of ASU No. 2016-02
The Company adopted ASU No. 2016-02, Leases, on January 1, 2019 using the modified retrospective approach which requires the following disclosure for periods presented prior to adoption. The following table represents minimum annual lease commitments as of December 31, 2018 under long-term operating leases:

Year Ending December 31,	Operating leases
2019	$ 40.9
2020	34.6
2021	29.5
2022	5.5
2023	2.2
Thereafter	12.2
Total lease payments	$ 124.9

K. Pension Plans and Other Postretirement Benefits

Entities within AWAC maintain pension plans covering certain non-U.S. employees. Pension benefits generally depend upon 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.

Entities within AWAC also maintain health care and life insurance postretirement benefit plans covering certain non-U.S. retired employees. Generally, the medical plans are unfunded and pay a percentage of medical expenses, reduced by deductibles and other coverages. Life benefits are generally provided by insurance contracts. The entities retain the right, subject to existing agreements, to change or eliminate these benefits.

(U.S. dollars in millions)

The table below reflects the status of AWAC's pension and postretirement benefit plans.

	Pension Benefits		Postretirement Benefits	
	2019	2018	2019	2018
Change in benefit obligation				
Benefit obligation at beginning of year	$ 724.9	$ 829.9	$ 58.0	$ 67.6
Service cost	14.1	16.9	-	0.1
Interest cost	23.8	25.1	2.1	2.3
Actuarial losses (gains)	81.6	(29.4)	(0.8)	(9.3)
Settlements	(63.5)	(49.6)	-	-
Benefits paid	(21.7)	(21.7)	(2.3)	(2.7)
Participants' contributions	5.5	6.1	-	-
Exchange rate	(0.1)	(52.4)	-	-
Benefit obligation at end of year	$ 764.6	$ 724.9	$ 57.0	$ 58.0
Change in plan assets				
Fair value of plan assets at beginning of year	$ 717.3	$ 833.1	$ -	$ -
Actual return on plan assets	83.2	5.3	-	-
Employer contributions	5.0	2.0	-	-
Participants' contributions	5.5	6.1	-	-
Settlements	(63.5)	(49.6)	-	-
Benefits paid	(21.7)	(21.7)	-	-
Administrative expenses	(2.6)	(2.7)	-	-
Exchange rate	(0.6)	(55.2)	-	-
Fair value of plan assets at end of year	$ 722.6	$ 717.3	$ -	$ -
Funded status	$ (42.0)	$ (7.6)	$ (57.0)	$ (58.0)
Amounts attributed to joint venture partners	(0.9)	(0.9)	-	-
Net funded status	$ (42.9)	$ (8.5)	$ (57.0)	$ (58.0)

(U.S. dollars in millions)

	Pension Benefits		Postretirement Benefits	
	2019	2018	2019	2018
Amounts recognized in the combined balance sheets consist of				
Noncurrent assets	$ 33.0	$ 62.7	$ -	$ -
Current liabilities	-	-	(2.9)	(3.3)
Noncurrent liabilities	(75.9)	(71.2)	(54.1)	(54.7)
Net amount recognized	$ (42.9)	$ (8.5)	$ (57.0)	$ (58.0)
Amounts recognized in accumulated other comprehensive loss consist of				
Net actuarial losses (gains)	$ 232.4	$ 207.5	$ (10.5)	$ (10.6)
Less: Amounts attributed to joint venture partners	1.3	1.7	-	-
Net amount recognized, before tax effect	$ 231.1	$ 205.8	$ (10.5)	$ (10.6)
Components of net periodic benefit costs				
Service cost	$ 13.6	$ 16.2	$ -	$ 0.1
Interest cost	23.3	24.5	2.1	2.3
Expected return on plan assets	(37.2)	(47.2)	-	-
Recognized actuarial losses (gains)	7.7	6.4	(0.9)	(0.2)
Settlement	6.5	2.8	-	-
	$ 13.9	$ 2.7	$ 1.2	$ 2.2

	Pension Benefits		Postretirement Benefits	
	2019	2018	2019	2018
Other changes in plan assets and benefit obligations recognized in Other comprehensive (loss) income consist of				
Net loss (gain)	$ 39.1	$ 11.6	$ (0.8)	$ (9.3)
Amortization of net (loss) gain	(14.2)	(9.2)	0.9	0.2
Totals before tax effect	24.9	2.4	0.1	(9.1)
Less: Amounts attributed to joint venture partners	(0.4)	(0.1)	-	-
Net amount recognized before tax effect	$ 25.3	$ 2.5	$ 0.1	$ (9.1)

	Pension Benefits 2020	Postretirement Benefits 2020
Amounts expected to be recognized in net periodic benefit cost		
Prior service cost (credit) recognition	$ -	$ -
Actuarial loss (gain) recognition	9.7	(0.4)

(U.S. dollars in millions)

Pension Plan Benefit Obligations

	Pension Benefits 2019	Pension Benefits 2018
The projected benefit obligation and accumulated benefit obligation for all defined benefit pension plans was as follows		
Projected benefit obligation	$ 764.6	$ 724.9
Accumulated benefit obligation	711.9	639.1
The aggregate projected benefit obligation and fair value of plan assets for pension plans with projected benefit obligations in excess of plan assets was as follows		
Projected benefit obligation	247.3	230.9
Fair value of plan assets	171.9	159.7
The aggregate accumulated benefit obligation and fair value of plan assets for pension plans with accumulated benefit obligations in excess of plan assets was as follows		
Accumulated benefit obligation	261.4	228.6
Fair value of plan assets	171.9	159.7

Assumptions

Weighted average assumptions used to determine benefit obligations at December 31:

	2019	2018
Weighted average assumptions		
Discount rate - pension plans	2.57 %	3.90 %
Discount rate - other postretirement benefit plans	3.36	4.40
Rate of compensation increase - pension plans	3.10	3.29

The yield curve model used to develop the discount rate parallels the plans' projected cash flows and has a weighted average duration of nine years. The underlying cash flows of the high quality corporate bonds included in the model exceed the cash flows needed to satisfy the plans' obligations multiple times. If a deep market of high quality corporate bonds does not exist in a country, then the yield on government bonds plus a corporate bond yield spread is used.

The rate of compensation increase is based upon anticipated compensation increases and estimated inflation. For 2020, the rate of compensation increase will be 3.10%.

Weighted average assumptions used to determine the net periodic benefit cost for years ended December 31:

	2019	2018	2017
Weighted average assumptions			
Discount rate - pension plans	3.59 %	3.42 %	3.75 %
Discount rate - other postretirement benefit plans	4.40	3.75	4.25
Expected long-term return on plan assets - pension plans	5.44	6.28	6.81
Rate of compensation increase - pension plans	3.29	3.81	4.25

The expected long-term rate of return used by management was based on the prevailing and planned strategic asset allocations, as well as estimates of future returns by asset class. For 2020,

(U.S. dollars in millions)

management anticipates that 4.39% will be the weighted-average expected long-term rate of return.

Assumed health care cost trend rates for other postretirement benefit plans were as follows at December 31:

	2019	**2018**	**2017**
Health care cost trend rate assumed for next year	5.5 %	5.5 %	5.5 %
Rate to which the cost trend rate gradually declines	4.5	4.5	4.5
Year that the rate reaches the rate it is assumed to remain	2023	2022	2021

The assumed health care cost trend rate is used to measure the expected cost of gross eligible charges covered by AWAC's other postretirement benefit plans. For 2020, a 5.5% trend rate will be used reflecting management's best estimate of the change in future health care costs covered by the plans. The effect of a one percentage point change in the assumed health care cost trend rate would not be significant to AWAC.

Plan Assets
AWAC's pension plan investment policy and weighted average asset allocations at December 31, 2019 and 2018, by asset category, were as follows:

	Policy	**Plan Assets**	
	Range	**2019**	**2018**
Asset category			
Equities	10-70%	25 %	26 %
Fixed income	25-65%	59	53
Other investments	0-60%	16	21
		100 %	100 %

The principal objectives underlying the investment of the pension plan assets are to ensure that the Company can properly fund benefit obligations as they become due under a broad range of potential economic and financial scenarios, maximize the long-term investment return with an acceptable level of risk based on such obligations, and broadly diversify investments across and within various asset classes to protect asset values against adverse movements. Investment risk is controlled by rebalancing to target allocations on a periodic basis and ongoing monitoring of investment manager performance. Investment practices comply with the requirement of applicable laws and regulations in the respective jurisdictions.

Each of the AWAC pension plans has its own policy range and their assets at year-end are within those ranges. The Australia pension plan assets approximate 65% of the total assets and, therefore, their policy range is disclosed.

The following section describes the valuation methodologies used by the trustee to measure the fair value of pension plan assets. For plan assets measured at net asset value, this refers to the

(U.S. dollars in millions)

net asset value of the investment on a per share basis (or its equivalent) as a practical expedient. Otherwise, an indication of the level in the fair value hierarchy in which each type of asset is generally classified is provided.

Equities
These securities consist of: (i) direct investments in the stock of publicly traded U.S. and non-U.S. companies and are valued based on the closing price reported in an active market on which the individual securities are traded (generally classified in Level 1); (ii) the plans' share of commingled funds that are invested in the stock of publicly traded companies and are valued at net asset value; and (iii) direct investments in long/short equity hedge funds and private equity (limited partnerships and venture capital partnerships) and are valued at net asset value.

Fixed Income
These securities consist of: (i) U.S. government debt and are generally valued using quoted prices (included in Level 1); (ii) cash and cash equivalents invested in publicly-traded funds and are valued based on the closing price reported in an active market on which the individual securities are traded (generally classified in Level 1); (iii) publicly traded U.S. and non-U.S. fixed interest obligations (principally corporate bonds and debentures) and are valued through consultation and evaluation with brokers in the institutional market using quoted prices and other observable market data (included in Level 2); and (iv) cash and cash equivalents invested in institutional funds and are valued at net asset value.

Other Investments
These investments include, among others: (i) real estate investment trusts valued based on the closing price reported in an active market on which the investments are traded (included in Level 1); (ii) the plans' share of commingled funds that are invested in real estate partnerships and are valued at net asset value; and (iii) direct investments in private real estate (includes limited partnerships) and are valued at net asset value.

The fair value methods described above may not be indicative of net realizable value or reflective of future fair values. Additionally, while AWAC believes the valuation methods used by the plans' trustee are appropriate and consistent with other market participants, the use of different methodologies or assumptions to determine the fair value of certain financial instruments could result in a different fair value measurement at the reporting date.

The following tables present the fair value of pension plan assets classified under the appropriate level of the fair value hierarchy:

	2019			
	Level 1	**Level 2**	**Net Asset Value**	**Total**
Equities	$ 72.3	$ -	$ 138.9	$ 211.2
Fixed income	107.8	30.8	290.1	428.7
Other investments	9.9	-	73.3	83.2
	$ 190.0	$ 30.8	$ 502.3	$ 723.1

(U.S. dollars in millions)

	2018			
	Level 1	**Level 2**	**Net Asset Value**	**Total**
Equities	$ 94.3	$ -	$ 122.3	$ 216.6
Fixed income	111.8	31.8	244.0	387.6
Other investments	11.1	-	102.0	113.1
	$ 217.2	$ 31.8	$ 468.3	$ 717.3

Funding and Cash Flows
It is AWAC's policy to fund amounts for defined benefit pension plans sufficient to meet the minimum requirements set forth in applicable country benefits laws and tax laws. From time to time, the Company contributes additional amounts as deemed appropriate. In 2019, 2018, and 2017, cash contributions to AWAC's defined benefit pension plans were $4.9, $1.9, and $9.6.

The minimum required contribution to the defined benefit pension plans in 2020 is estimated to be $13.5.

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

	Pension Benefits	**Postretirement Benefits**
Years Ending		
2020	$ 59.8	$ 3.0
2021	57.1	3.0
2022	57.9	3.1
2023	59.4	3.1
2024	60.1	3.1
2025 through 2029	291.6	15.9
	$ 585.9	$ 31.2

Other Plans
Certain AWAC employees participate in a number of defined contribution plans sponsored by Alcoa. Expenses recognized by AWAC for these plans were $35.8 in 2019, $35.9 in 2018 and $35.3 in 2017.

Certain AWAC employees participate in pension and other postretirement benefit plans sponsored by Alcoa. Expenses recognized by AWAC for these plans were $5.5 and $3.0 in 2019, $7.6 and $3.5 in 2018, and $8.1 and $4.2 in 2017, respectively.

L. Income Taxes

The components of income before income taxes were as follows:

(U.S. dollars in millions)

	2019	2018	2017
U.S.	$ (394.3)	$ (173.5)	$ (118.8)
Foreign	1,354.2	2,515.0	1,463.8
	$ 959.9	$ 2,341.5	$ 1,345.0

The provision for income taxes on income consisted of the following:

	2019	2018	2017
Current			
U.S. federal	$ (1.7)	$ 8.0	$ (0.7)
Foreign	400.1	687.3	364.4
	398.4	695.3	363.7
Deferred			
U.S. federal	2.3	(3.7)	6.3
Foreign	(5.9)	9.7	73.7
	(3.6)	6.0	80.0
	$ 394.8	$ 701.3	$ 443.7

A reconciliation of the U.S. federal statutory rate to AWAC's effective tax rate was as follows:

	2019	2018	2017
U.S. federal statutory rate	21.0 %	21.0 %	35.0 %
Losses not taxed to AWAC (pass-through entities)	8.6	1.7	4.2
Taxes on foreign income	12.5	9.6	(5.8)
Tax holidays [1]	(0.1)	(1.8)	0.3
Changes in valuation allowance	(0.6)	(0.3)	(1.0)
Other	(0.3)	(0.2)	0.3
Effective tax rate	41.1 %	30.0 %	33.0 %

(1) In 2019 and 2018, the income of certain operations of AWAB was taxed at a lower rate as a result of approved tax holidays. The difference between the respective holiday rates and the statutory rates resulted in a benefit of $8 and $37 in 2019 and 2018, respectively. These tax holidays expire at the end of 2026 and 2027 (see below). In 2019 and 2018, this line item also includes a charge of $7 and a benefit of $5, respectively, for the remeasurement of certain deferred tax assets related to these tax holidays in Brazil (see below).

(U.S. dollars in millions)

In late 2019, AWAB received an extension of its tax holiday related to production at the Alumar refinery. This holiday was due to end December 31, 2022 but was extended to December 31, 2027. The holiday decreases AWAB's tax rate on income generated by the Alumar refinery from 34% to 15.25%, which will result in future cash tax savings. As a result of the extension of the holiday, as well as an updated analysis of the deferred tax assets expected to reverse as described below with respect to the Juruti holiday, AWAB's existing deferred tax assets that are expected to reverse during the holiday period were remeasured at the lower tax rate. In 2019, this remeasurement resulted in both a decrease to AWAB's deferred tax assets and a discrete income tax charge of $7.

In mid-2017, AWAB received approval for a tax holiday related to the operation of the Juruti (Brazil) bauxite mine. This tax holiday was made effective as of January 1, 2017 (retroactively) and decreased AWAB's tax rate on income generated by the Juruti mine from 34% to 15.25%, which results in future cash tax savings through December 31, 2026. As a result of this income tax rate change, AWAB's existing deferred tax assets that are expected to reverse during the holiday period were remeasured at the lower tax rate. In 2017, this remeasurement resulted in both a decrease to AWAB's deferred tax assets and a discrete income tax charge of $26. An updated analysis of the deferred tax assets expected to reverse during the holiday period resulted in both an increase to AWAB's deferred tax assets and a discrete income tax benefit of $5 in 2018.

The components of deferred tax assets and liabilities based on the underlying attributes without regard to jurisdiction at December 31 were as follows:

	2019		2018	
	Deferred Tax Assets	Deferred Tax Liabilities	Deferred Tax Assets	Deferred Tax Liabilities
Depreciation	$ 33.8	$ 196.8	$ 67.7	$ 197.7
Derivatives and hedging activities	-	17.9	-	31.7
Employee benefits	138.1	-	128.6	-
Loss provisions	98.7	-	109.0	-
Tax loss carryforwards	335.7	-	374.7	-
Deferred income/expense	1.0	92.7	-	102.1
Other	23.2	1.4	21.1	0.8
	630.5	308.8	701.1	332.3
Valuation allowance	(264.2)	-	(307.1)	-
	$ 366.3	$ 308.8	$ 394.0	$ 332.3

(U.S. dollars in millions)

The following table details the expiration periods of the deferred tax assets presented above:

	Expires Within 10 Years	Expires Within 11-20 Years	No Expiration	Other	Total
Tax loss carryforwards	$ 175.2	$ 2.0	$ 158.5	$ -	$ 335.7
Other	-	-	-	294.8	294.8
Valuation allowances	(175.2)	(2.0)	-	(87.0)	(264.2)
	$ -	$ -	$ 158.5	$ 207.8	$ 366.3

Deferred tax assets with no expiration may still have annual limitations on utilization. Other represents deferred tax assets whose expiration is dependent upon the reversal of the underlying temporary difference. The total deferred tax asset (net of valuation allowance) is supported by projections of future taxable income exclusive of reversing temporary differences and taxable temporary differences that reverse within the carryforward period.

The following table details the changes in the valuation allowance at December 31:

	2019	2018	2017
Balances at beginning of year	$ 307.1	$ 348.0	$ 333.7
Establishment of new allowances	-	1.6	-
Net change to existing allowances	(42.9)	(39.9)	11.9
Foreign currency translation	-	(2.6)	2.4
Balances at end of year	$ 264.2	$ 307.1	$ 348.0

Unrecognized tax benefits

AWAC consists of a variety of different tax-paying legal entities, including entities that are multiple member limited liability companies (AWA LLC in the U.S.). AWAC entities outside of the U.S. file income tax returns in the various foreign jurisdictions. Foreign jurisdiction tax authorities are in the process of examining income tax returns of certain of the AWAC entities for various tax years. Excluding the matter discussed below, the Company is no longer subject to examinations by tax authorities in any major tax jurisdiction for years before 2014. Unrecognized tax benefits recorded on the Combined Balance Sheet as of December 31, 2019 and 2018 is not material.

In December 2019, Alcoa of Australia (“AofA”) received a statement of audit position (SOAP) from the Australian Taxation Office (ATO) related to the pricing of certain historic third-party alumina sales. The SOAP proposed adjustments that would result in additional income tax payable by AofA of approximately $144 (A$212), exclusive of interest and penalties.

The SOAP is currently the subject of an independent review process within the ATO. At the conclusion of this process, the ATO may or may not issue a tax assessment. If an assessment were to be issued, in accordance with the ATO dispute procedures, it is expected that AofA would pay 50% of the disputed tax amount to the ATO. AofA could then pursue all available dispute resolution methods, up to and including the filing of proceedings in the Australian Courts, without

(U.S. dollars in millions)

the ATO seeking further payment prior to final resolution. If AofA is ultimately successful, any amounts paid to the ATO would be refunded.

Management does not agree with the ATO's position and believes it is more likely than not the Company's tax position will be sustained and, therefore, has not recognized any tax liabilities in relation to this matter. Because the resolution of this matter is uncertain at this time, the Company cannot predict the outcome which may materially affect its financial results.

M. Derivatives and Other Financial Instruments

Fair Value

Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The fair value hierarchy distinguishes between (i) market participant assumptions developed based on market data obtained from independent sources (observable inputs) and (ii) an entity's own assumptions about market participant assumptions developed based on the best information available in the circumstances (unobservable inputs). The fair value hierarchy consists of three broad levels, which gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (Level 1) and the lowest priority to unobservable inputs (Level 3). The three levels of the fair value hierarchy are described below:

Level 1 — Unadjusted quoted prices in active markets that are accessible at the measurement date for identical, unrestricted assets or liabilities.

Level 2 — Inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly or indirectly, including quoted prices for similar assets or liabilities in active markets; quoted prices for identical or similar assets or liabilities in markets that are not active; inputs other than quoted prices that are observable for the asset or liability (e.g., interest rates); and inputs that are derived principally from or corroborated by observable market data by correlation or other means.

Level 3 — Inputs that are both significant to the fair value measurement and unobservable.

Derivatives

AWAC is exposed to certain risks relating to its ongoing business operations, including changing commodity prices, foreign currency exchange rates and interest rates. AWAC's commodity and derivative activities include aluminum, energy, foreign exchange and interest rate contracts which are held for purposes other than trading. They are used primarily to mitigate uncertainty and volatility, and to cover underlying exposures. AWAC is not involved in trading activities for energy, weather derivatives, or other nonexchange commodity trading activities. AWAC's commodity and derivative activities are subject to the management, direction, and control of Alcoa's Strategic Risk Management Committee (SRMC), which consists of at least three members, including the chief executive officer and the chief financial officer. The remaining member of the SRMC is the treasurer. The SRMC meets on a periodic basis to review derivative positions and strategy.

Several of AWAC's aluminum, energy, foreign exchange contracts, and interest rate contracts are classified as Level 1 or Level 2 under the fair value hierarchy. All of these contracts are designated as either fair value or cash flow hedging instruments. AWAC also has several derivative

(U.S. dollars in millions)

instruments classified as Level 3 under the fair value hierarchy, which are either designated as cash flow hedges or undesignated.

The following tables present the detail for Level 1, 2 and 3 derivatives (see additional Level 3 information in further tables below):

	2019		2018	
	Assets	**Liabilities**	**Assets**	**Liabilities**
Balance at December 31,				
Level 1 and 2 derivative instruments	$ 2.4	$ 17.2	$ -	$ 38.5
Level 3 derivative instruments	73.5	-	112	-
Total	75.9	17.2	112.2	38.5
Less: Current	58.2	11.2	70.3	15.0
Noncurrent	$ 17.7	$ 6.0	$ 41.9	$ 23.5

	Unrealized Gain (loss) Recognized in Other Comprehensive (loss) Income		Realized Gain (loss) Reclassed from Other Comprehensive (loss) Income to Earnings	
	2019	**2018**	**2019**	**2018**
Year ended December 31,				
Level 1 and 2 derivative instruments	$ 6.9	$ 27.5	$ (17.1)	$ (14.2)
Level 3 derivative instruments	51.4	(11.1)	86.7	62.3
Equity interest	(1.9)	-	-	-
Total	$ 56.4	$ 16.4	$ 69.6	$ 48.1

The 2019 realized loss of $17.1 and the 2018 realized loss of $14.2 on Level 1 and 2 cash flow hedges were recognized in Sales.

During 2017, AWAC recognized a realized gain of $0.3 on Level 1 and 2 cash flow hedges in Sales. In addition, AWAC recognized a realized gain of $31.2 on Level 3 cash flow hedges in Cost of goods sold. AWAC also recognized a gain of $17.4 in Other expenses, net, related to related to the Level 3 financial contract.

Derivative instruments classified as Level 3 in the fair value hierarchy represent those in which management has used at least one significant unobservable input in the valuation model. AWAC uses a discounted cash flow model to fair value all Level 3 derivative instruments. These valuation models are reviewed and tested at least on an annual basis. Inputs in the valuation models for Level 3 derivative instruments are composed of the following: (i) quoted market prices (e.g., aluminum prices on the 10-year London Metal Exchange (LME) forward curve and energy prices), (ii) significant other observable inputs (e.g., information concerning time premiums and volatilities for certain option type embedded derivatives, and (iii) unobservable inputs (e.g., aluminum and energy prices beyond quoted in the market). For periods beyond the term of quoted market prices for aluminum, AWAC estimates the price of aluminum by extrapolating the 10-year LME forward curve. Additionally, for periods beyond the term of quoted market prices for energy, management has developed a forward curve based on independent consultant market research. Where appropriate, valuations are adjusted for various factors such as liquidity, bid/offer spreads, and credit considerations. Such adjustments are generally based on available market evidence (Level 2). In the absence of such evidence, management's best estimate is used (Level 3). If a

(U.S. dollars in millions)

significant input that is unobservable in one period becomes observable in a subsequent period, the related asset or liability would be transferred to the appropriate classification (Level 1 or 2) in the period of such change (there were no such transfers in the periods presented). There were no purchases, sales or settlements of Level 3 derivative instruments in the periods presented.

AWAC's Level 3 derivative instruments are described in the table below:

Description	**Designation**	**Contract Termination**	**Unobservable Inputs Impacting Valuation**	**Sensitivity to Inputs**
Financial contract				
Hedge power prices	Cash flow hedge of future purchases of electricity	July 2021	Power price	Lower power prices result in a lower derivative asset
Hedge power prices	Not designated	August 2017	Power price	Lower power prices result in a lower derivative asset
Natural gas supply contact				
Embedded derivative that indexes price of natural gas to the LME price of aluminum	Not designated	October 2018	LME price, Brent crude oil	Higher oil prices with no increase in LME would limit the increase in the derivative asset

At December 31, 2019 and 2018, the financial contract hedges forecasted electricity purchases of 3,891,096 and 6,348,276 megawatt hours, respectively, at a smelter.

The following table presents quantitative information related to the significant unobservable inputs described above for Level 3 derivative instruments (megawatt hours in MWh):

	December 31, 2019	**Unobservable Input**	**Unobservable Input Range**	
Asset Derivatives				
Financial contract	$ 73.5	Interrelationship of forward energy price and Consumer Price Index	Electricity (per MWh)	2020: $62.66 2021: $51.59
Total asset derivatives	$ 73.5			

The fair value of the Level 3 derivative instrument recorded as an asset in the accompanying Combined Balance Sheet was as follows:

	December 31, 2019	**December 31, 2018**
Asset derivatives		
Derivatives designated as hedging instruments:		
Current—financial contract	$ 56.6	$ 70.3
Noncurrent—financial contract	16.9	41.9
Total asset derivatives	$ 73.5	$ 112.2

(U.S. dollars in millions)

The following table shows the fair value of the Level 3 derivative instruments at December 31, 2019 and the effect on these amounts of a hypothetical change (increase or decrease of 10%) in the market prices or rates that existed as of December 31, 2019:

	Fair Value Asset/(liability)	Index Change of + / -10%
Financial contract	$ 73.5	$ 22.1

The following table presents a reconciliation of activity for Level 3 derivative contract assets:

	2019	2018	
	Financial Contract	Natural Gas Supply Contract	Financial Contract
January 1	$ 112.2	$ -	$ 197.4
Total gains or losses included in:			
Cost of goods sold (realized)	(86.7)	-	(62.3)
Other expenses, net (unrealized)	-	(0.7)	-
Other comprehensive (loss) income (unrealized)	51.4	-	(11.1)
Other	(3.4)	0.7	(11.8)
December 31	$ 73.5	$ -	$ 112.2
Change in unrealized gains or losses included in earnings for derivative instruments held at December 31:			
Other expenses, net	$ -	$ (0.7)	$ -

Derivatives Designated As Hedging Instruments – Cash Flow Hedges.

For derivative instruments that are designated and qualify as cash flow hedges, effective on January 1, 2018, the entire amount of unrealized gains or losses on the derivative is reported as a component of Other comprehensive (loss) income. Prior to January 1, 2018, only the effective portion of unrealized gains or losses on the derivative is reported as a component of Other comprehensive (loss) income while the ineffective portion of unrealized gains or losses is recognized directly in earnings immediately. On April 1, 2018, AWAC adopted guidance issued by the FASB to the accounting for hedging activities, which included the elimination of the concept of ineffectiveness. Accordingly, there is no longer a requirement to separately measure and report ineffectiveness. In all periods presented, realized gains or losses on the derivative are reclassified from Other comprehensive (loss) income into earnings in the same period or periods during which the hedged transaction impacts earnings. Additionally, gains and losses on the derivative representing either hedge ineffectiveness or hedge components excluded from the assessment of effectiveness are recognized directly in earnings immediately.

Assuming market rates remain consistent with the rates at December 31, 2019, a realized gain of $56.6 related to the financial contract is expected to be recognized in Cost of goods sold over the next 12 months.

(U.S. dollars in millions)

Material Limitations
The disclosures with respect to commodity prices, interest rates, and foreign currency 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 AWAC's control and could vary significantly from those factors disclosed.

AWAC 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, AWAC 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.

Other Financial Instruments
The carrying values and fair values of AWAC's financial instruments at December 31 were as follows:

	2019		2018	
	Carrying Value	**Fair Value**	**Carrying Value**	**Fair Value**
Cash and cash equivalents	$ 418.7	$ 418.7	$ 740.3	$ 740.3
Short-term borrowings	0.5	0.5	0.4	0.4
Long-term debt	78.2	78.2	84.4	84.4

The following methods were used to estimate the fair value of other financial instruments:

Cash and Cash Equivalents and Short-Term Borrowings
The carrying amounts approximate fair value because of the short maturity of the instruments. The fair value amounts for Cash and cash equivalents were classified in Level 1 of the fair value hierarchy and Short-term borrowings were classified in Level 2.

Long-Term Debt
The fair value of long-term debt is based on anticipated cash flows which approximates carrying value and was classified in Level 2 of the fair value hierarchy.

N. Cash Flow Information

Cash paid for interest and income taxes was as follows:

	2019	**2018**	**2017**
Interest, net of amount capitalized	$ 3.9	$ 6.1	$ 1.1
Income taxes, net of amount refunded	707.9	451.3	254.6

(U.S. dollars in millions)

O. Contingencies and Commitments

Contingencies

Tax Matters

In March 2013, AWAB was notified by the Brazilian Federal Revenue Office (RFB) that approximately $110 (R$220) of value added tax credits previously claimed are being disallowed and a penalty of 50% assessed. Of this amount, AWAB received $41 (R$82) in cash in May 2012. The value-added tax credits were claimed by AWAB for both fixed assets and export sales related to the Juruti bauxite mine and São Luís refinery expansion. The RFB has disallowed credits they allege belong to the consortium in which AWAB owns an interest and should not have been claimed by AWAB. Credits have also been disallowed as a result of challenges to apportionment methods used, questions about the use of the credits, and an alleged lack of documented proof. AWAB presented defense of its claim to the RFB on April 8, 2013. If AWAB is successful in this administrative process, the RFB would have no further recourse. If unsuccessful in this process, AWAB has the option to litigate at a judicial level. Separately from AWAB's administrative appeal, in June 2015, new tax law was enacted repealing the provisions in the tax code that were the basis for the RFB assessing a 50% penalty in this matter. As such, the estimated range of reasonably possible loss for these matters is $0 to $54. It is management's opinion that the allegations have no basis; however, at this time, the Company is unable to reasonably predict an outcome for this matter.

General

In addition to the matters discussed above, various other lawsuits, claims, and proceedings have been or may be instituted or asserted against AWAC, including those pertaining to environmental, safety and health, commercial, tax, product liability, intellectual property infringement, employment, and employee and retiree benefit matters, and other actions and claims arising out of the normal course of business. While the amounts claimed in these other matters may be substantial, the ultimate liability is not readily determinable because of the considerable uncertainties that exist. Accordingly, it is possible that the Company's liquidity or results of operations in a particular period could be materially affected by one or more of these other matters. However, based on facts currently available, management believes that the disposition of these other matters that are pending or asserted will not have a material adverse effect, individually or in the aggregate, on the financial position of the Company.

Pursuant to the terms of the Formation Agreement, Alcoa and Alumina Limited have agreed to remain liable for Extraordinary Liabilities (as defined in the agreement) as well as for certain other preformation liabilities, such as existing environmental conditions, to the extent of their preformation ownership of the company or asset with which the liability is associated.

(U.S. dollars in millions)

Commitments
AofA has a gas supply agreement to power its three alumina refineries in Western Australia beginning in July 2020 for a 12-year period. The terms of this agreement required AofA to make a prepayment of $500.0 in two installments, the first of which was made in June 2015 for $300.0. The second installment of $200.0 was made in April 2016. At December 31, 2019 AWAC had a gas supply prepayment of $458.1, of which $21.0 was included in Prepaid expenses on the accompanying Combined Balance Sheet. At December 31, 2018, AWAC had a gas supply prepayment of $458.1 included in the accompanying Combined Balance Sheet.

In connection with the sale of Alcoa Specialty Chemicals ("ASC"), in 2004 AWAC entered into a 20-year agreement to supply ASC with approximately 488,000 tons of alumina feedstock annually. The first five years of the contract provide for a fixed price with adjustments in pricing to the extent certain AWAC costs fluctuate outside of agreed upon thresholds. In years six through ten pricing is tied to an industry-accepted index, and in the final ten years the pricing is to be negotiated.

AWAC has entered into other purchase commitments for energy, raw materials, and other goods and services which total $1,154.2 in 2020, $1,017.5 in 2021, $1,015.6 in 2022, $997.7 in 2023, $839.0 in 2024 and $5,843.3 thereafter.

AWAC has outstanding bank guarantees and letters of credit primarily related to environmental obligations, leasing obligations, legal matters, and customs duties, among others. The total amount committed under these instruments, which automatically renew or expire at various dates, mostly before 2021, was $135.9 at December 31, 2019. AWAC has outstanding surety bonds primarily related to customs duties. The total amount committed under these bonds, which automatically renew or expire at various dates, between 2020 and 2024, was $6.7 at December 31, 2019.

P. Environmental Matters

AWAC participates in environmental assessments and cleanups at several locations. These include owned or operating facilities and adjoining properties, previously owned or operating facilities and adjoining properties, and waste sites, including Superfund (Comprehensive Environmental Response, Compensation and Liability Act (CERCLA)) sites.

(U.S. dollars in millions)

The following table details the changes in the total carrying value of recorded environmental remediation liabilities at December 31:

	2019	2018
Balances at beginning of year	$ 48.1	$ 44.2
Liabilities incurred	69.8	2.6
Payments	(2.8)	(3.1)
Translation and other	-	4.4
Balances at end of year	$ 115.1	$ 48.1

Environmental remediation liabilities are recorded in Other current liabilities ($12.5 and $13.8 as of December 31, 2019 and 2018, respectively) and the noncurrent portion is recorded in Other noncurrent liabilities and deferred credits ($102.6 and $34.3 as of December 31, 2019 and 2018, respectively) on the accompanying Combined Balance Sheet.

In 2019, the Company incurred liabilities of $68.9 related to the closure of the Point Comfort alumina refinery, of which $60.5 was recorded in Restructuring and other charges, on the accompanying Combined Statement of Income ($8.4 was recorded as a receivable due from Alcoa Corporation in accordance with the Formation Agreement). The reserve is for disposal of industrial wastes contained at the site, subsurface remediation, and post-closure monitoring and maintenance. The final remediation plan is currently under review; such review could require the reserve balance to be adjusted.

Q. Restructuring and Other Charges

Restructuring and other charges for each of the periods ending December 31, 2019, 2018 and 2017 were comprised of the following:

	2019	2018	2017
Asset impairment	$ 140.5	$ 78.1	$ 1.0
Environmental liabilities and asset retirement obligations	122.6	7.4	4.0
Severance and other costs	31.7	(0.7)	5.0
	$ 294.8	$ 84.8	$ 10.0

(U.S. dollars in millions)

In December 2019, AWAC announced the permanent closure of the Point Comfort (Texas) alumina refinery. Restructuring charges recorded in 2019 related to the closure included asset impairments of $127.7, asset retirement obligations of $61.7, environmental remediation costs of $60.5, and severance costs of $3.6 for the layoff of approximately 40 employees. Additionally, a charge of $2.0 for the write down of remaining inventories to their net realizable value was recorded in Cost of goods sold on the accompanying Combined Statement of Income.

On December 31, 2019, AWAC completed the transfer of the Afobaka hydroelectric dam to the Government of the Republic of Suriname, according to definitive agreements approved by its parliament. After curtailment of AWAC's operations in Suriname in 2015 and permanent closure early 2017, AWAC continued to operate the dam, selling electricity to the government for its subsequent sale to customers in Suriname. At the time of the transfer, $12.8 of fixed assets related to the dam were fully depreciated and all outstanding amounts due to Alcoa for electricity sales were settled.

During 2019, AWAC also incurred $17.7 of severance costs associated with the implementation of a new operating model and $6.5 of pension settlement charges in Australia.

During 2018, AWAC incurred $7.4 for environmental liabilities and asset retirement obligations primarily related to the Australia and St. Croix locations. Additionally, AWAC incurred $77.6 to establish an allowance on certain value-added tax credits related to AWA Brazil (Note G).

During 2017, AWAC incurred $4.0 for environmental liabilities and asset retirement obligations primarily related to the Jamaica refinery and the Suriname refinery. Additionally, AWAC incurred $5.0 of severance and other exit costs primarily related to a pension settlement in Australia.

(U.S. dollars in millions)

Activity and reserve balances for restructuring charges were as follows:

Reserve balance at December 31, 2016	$ 17.1
Cash payments	(12.2)
Restructuring charges	10.0
Asset impairment	(1.0)
Environmental liabilities and asset retirement obligations	(4.0)
Pension adjustments	(4.8)
Other exit costs	(0.2)
Reserve balance at December 31, 2017	4.9
Cash payments	(0.6)
Restructuring charges	84.8
Asset impairment	(78.1)
Environmental liabilities and asset retirement obligations	(7.4)
Pension adjustments	(2.8)
Other exit costs	3.5
Reserve balance at December 31, 2018	4.3
Cash payments	(10.4)
Restructuring charges	294.8
Asset impairment	(140.5)
Environmental liabilities and asset retirement obligations	(122.6)
Pension adjustments	(6.5)
Other exit costs	(6.6)
Reserve balance at December 31, 2019	$ 12.5

R. Other (Income) Expense, Net

	2019	**2018**	**2017**
Interest income	$ (8.9)	$ (8.3)	$ (3.8)
Equity (earnings) loss	(5.5)	(32.5)	5.0
Gain from asset sales	(0.3)	-	(0.6)
Foreign currency (gains)/losses, net	2.1	(29.6)	21.4
Loss on derivatives activity	-	-	10.9
Other, net	4.6	(8.2)	(1.9)
	$ (8.0)	$ (78.6)	$ 31.0

(U.S. dollars in millions)

S. Accumulated Other Comprehensive Loss

The following table details the activity of the three components that comprise Accumulated other comprehensive loss for AWAC:

	2019	2018	2017
Pension and other postretirement benefits			
Balance at beginning of period	$ (116.1)	$ (120.0)	$ (149.7)
Other comprehensive (loss) income			
Unrecognized net actuarial (loss) income and prior service cost/benefit	(38.1)	(5.9)	31.4
Tax (expense) benefit	(5.1)	(1.5)	(5.6)
Total other comprehensive (loss) income before reclassifications, net of tax	(43.2)	(7.4)	25.8
Amortization of net actuarial loss and prior service cost/benefit [1]	13.3	9.0	4.7
Tax benefit (expense) [2]	1.8	2.3	(0.8)
Total amount reclassified from Accumulated other comprehensive loss, net of tax [5]	15.1	11.3	3.9
Total other comprehensive (loss) income	(28.1)	3.9	29.7
Balance at end of period	(144.2)	(116.1)	(120.0)
Foreign currency translation			
Balance at beginning of period	(2,190.4)	(1,602.6)	(1,834.8)
Other comprehensive (loss) income [3]	(71.0)	(587.8)	232.2
Balance at end of period	(2,261.4)	(2,190.4)	(1,602.6)
Cash flow hedges			
Balance at beginning of period	48.7	70.0	2.4
Other comprehensive (loss) income			
Net change from periodic revaluations	56.4	16.4	128.2
Tax expense	(17.5)	(4.9)	(38.5)
Total other comprehensive (loss) income before reclassifications, net of tax	38.9	11.5	89.7
Net amount reclassified to earnings:			
Aluminum contracts [6]	-	8.4	2.0
Foreign exchange contracts [6]	17.1	5.8	(2.4)
Financial contracts [7]	(86.7)	(61.1)	(31.2)
Interest rate contracts [4]		-	-
Tax benefit	20.9	14.1	9.5
Total amount reclassified from Accumulated other comprehensive loss, net of tax	(48.7)	(32.8)	(22.1)
Total other comprehensive (loss) income, net of tax	(9.8)	(21.3)	67.6
Balance at end of period	$ 38.9	$ 48.7	$ 70.0

(U.S. dollars in millions)

(1) These amounts were included in the computation of net periodic benefit cost for pension and other postretirement benefits (Note K).

(2) These amounts were included in Provision for income taxes on the accompanying Combined Statement of Income.

(3) In all periods presented, there were no tax impacts related to rate changes and no amounts were reclassified to earnings.

(4) These amounts were included in Other (income) expense, net on the accompanying Combined Statement of Income.

(5) A positive amount indicates a corresponding charge to earnings and a negative amount indicates a corresponding benefit to earnings. These amounts were reflected on the accompanying Combined Statement of Income in the line items indicated in footnotes 1 through 4.

(6) These amounts were included in Sales on the accompanying Combined Statement of Income.

(7) These amounts were included in Cost of goods sold on the accompanying Combined Statement of Income.

T. Subsequent Events

The combined financial statements of AWAC are derived from the financial statements of Alcoa, which were issued on February 21, 2020. Accordingly, AWAC management has evaluated transactions for consideration as recognized subsequent events in the annual financial statements through the date of February 21, 2020. Additionally, AWAC has evaluated transactions that occurred as of the issuance of these combined financial statements, March 12, 2020, for purposes of disclosure of unrecognized subsequent events.

Supplementary Combining Information

Report of Independent Auditors

To the Members of the Strategic Council of
Alcoa World Alumina and Chemicals
(Majority-owned by Alcoa Corporation)

We have audited the combined financial statements of Alcoa World Alumina and Chemicals ("AWAC") as of December 31, 2019 and 2018 and for each of the three years in the period ended December 31, 2019 and our report thereon appears on page 1 of this document. That audit was conducted for the purpose of forming an opinion on the combined financial statements taken as a whole. The combining information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the combined financial statements. The combining information has been subjected to the auditing procedures applied in the audit of the combined financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the combined financial statements or to the combined financial statements themselves and other additional procedures, in accordance with auditing standards generally accepted in the United States of America. In our opinion, the combining information is fairly stated, in all material respects, in relation to the combined financial statements taken as a whole.

PricewaterhouseCoopers LLP

Pittsburgh, Pennsylvania
March 12, 2020

PricewaterhouseCoopers LLP, 600 Grant Street, Pittsburgh, PA 15219
T: (412) 355 6000, F: (412) 355 8089, www.pwc.com/us