# UNITED STATES
# SECURITIES AND EXCHANGE COMMISSION

**Washington, D.C. 20549**

# Form 10-Q

(Mark One)

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

**For the quarterly period ended September 30, 2016**

**Or**

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

**For the transition period from to**

**Commission file number: 001-32312**

# Novelis Inc.

**(Exact name of registrant as specified in its charter)**

| | |
|---|---|
| **Canada** | **98-0442987** |
| **(State or other jurisdiction of incorporation or organization)** | **(I.R.S. Employer Identification Number)** |
| **3560 Lenox Road, Suite 2000 Atlanta, Georgia** | **30326** |
| **(Address of principal executive offices)** | **(Zip Code)** |

**Telephone: (404) 760-4000**

**(Registrant's telephone number, including area code)**

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

The registrant is a voluntary filer and is not subject to the filing requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934. However, the registrant has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months.

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes ý No ¨

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act. (Check one):

| | | | |
|---|---|---|---|
| Large accelerated filer | ¨ | Accelerated filer | ¨ |
| Non-accelerated filer | ý (Do not check if a smaller reporting company) | Smaller reporting company | ¨ |

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes ¨ No ý

As of November 4, 2016, the registrant had 1,000 shares of common stock, no par value, outstanding. All of the registrant's outstanding shares were held indirectly by Hindalco Industries Ltd., the registrant's parent company.

**Novelis Inc.**

## TABLE OF CONTENTS

### PART I. FINANCIAL INFORMATION



### PART II. OTHER INFORMATION

## PART I. FINANCIAL INFORMATION

**Item 1.** ***Financial Statements (unaudited)***

**Novelis Inc.**
**CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS (unaudited)**
**(in millions)**

| | Three Months Ended September 30, | | Six Months Ended September 30, | |
|---|---|---|---|---|
| | 2016 | 2015 | 2016 | 2015 |
| Net sales | $ 2,361 | $ 2,482 | $ 4,657 | $ 5,116 |
| Cost of goods sold (exclusive of depreciation and amortization) | 1,980 | 2,241 | 3,910 | 4,641 |
| Selling, general and administrative expenses | 108 | 100 | 200 | 200 |
| Depreciation and amortization | 90 | 89 | 179 | 176 |
| Interest expense and amortization of debt issuance costs | 81 | 82 | 164 | 162 |
| Loss on extinguishment of debt | 112 | — | 112 | 13 |
| Research and development expenses | 14 | 13 | 27 | 26 |
| Gain on assets held for sale | (1) | — | (2) | — |
| Restructuring and impairment, net | 1 | 4 | 3 | 19 |
| Equity in net loss of non-consolidated affiliates | — | 1 | — | 2 |
| Other expense (income), net | 38 | (32) | 66 | (62) |
| | 2,423 | 2,498 | 4,659 | 5,177 |
| Loss before income taxes | (62) | (16) | (2) | (61) |
| Income tax provision (benefit) | 27 | (3) | 63 | 12 |
| Net loss | (89) | (13) | (65) | (73) |
| Net income attributable to noncontrolling interests | — | — | — | — |
| **Net loss attributable to our common shareholder** | $ (89) | $ (13) | $ (65) | $ (73) |

See accompanying notes to the condensed consolidated financial statements.

**Novelis Inc.**
**CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE LOSS (unaudited)**
**(in millions)**

| | Three Months Ended September 30, | |
|---|---|---|
| | 2016 | 2015 |
| **Net loss** | $ (89) | $ (13) |
| Other comprehensive income (loss): | | |
| Currency translation adjustment | 64 | (61) |
| Net change in fair value of effective portion of cash flow hedges | 13 | (48) |
| Net change in pension and other benefits | 9 | 9 |
| Other comprehensive income (loss) before income tax effect | 86 | (100) |
| Income tax provision (benefit) related to items of other comprehensive income (loss) | 7 | (5) |
| Other comprehensive income (loss), net of tax | 79 | (95) |
| **Comprehensive loss** | (10) | (108) |
| Less: Comprehensive income attributable to noncontrolling interests, net of tax | 1 | — |
| **Comprehensive loss attributable to our common shareholder** | $ (11) | $ (108) |

| | Six Months Ended September 30, | |
|---|---|---|
| | 2016 | 2015 |
| **Net loss** | $ (65) | $ (73) |
| Other comprehensive income (loss): | | |
| Currency translation adjustment | 11 | (19) |
| Net change in fair value of effective portion of cash flow hedges | 2 | (10) |
| Net change in pension and other benefits | 29 | — |
| Other comprehensive income (loss) before income tax effect | 42 | (29) |
| Income tax provision related to items of other comprehensive loss | 8 | 1 |
| Other comprehensive income (loss), net of tax | 34 | (30) |
| **Comprehensive loss** | (31) | (103) |
| Less: Comprehensive income (loss) attributable to noncontrolling interests, net of tax | 1 | (2) |
| **Comprehensive loss attributable to our common shareholder** | $ (32) | $ (101) |

See accompanying notes to the condensed consolidated financial statements.

## Novelis Inc.
## CONDENSED CONSOLIDATED BALANCE SHEETS (unaudited)
## (in millions, except number of shares)

| | September 30, 2016 | March 31, 2016 |
|---|---|---|
| **ASSETS** | | |
| **Current assets** | | |
| Cash and cash equivalents | $ 473 | $ 556 |
| Accounts receivable, net | | |
| — third parties (net of uncollectible accounts of $4 as of September 30, 2016 and $3 as of March 31, 2016) | 1,120 | 956 |
| — related parties | 59 | 59 |
| Inventories | 1,280 | 1,180 |
| Prepaid expenses and other current assets | 102 | 127 |
| Fair value of derivative instruments | 91 | 88 |
| Assets held for sale | 3 | 5 |
| **Total current assets** | 3,128 | 2,971 |
| Property, plant and equipment, net | 3,426 | 3,506 |
| Goodwill | 607 | 607 |
| Intangible assets, net | 491 | 523 |
| Investment in and advances to non–consolidated affiliate | 482 | 488 |
| Deferred income tax assets | 94 | 87 |
| Other long–term assets | | |
| — third parties | 86 | 82 |
| — related parties | 6 | 16 |
| **Total assets** | $ 8,320 | $ 8,280 |
| **LIABILITIES AND SHAREHOLDER'S DEFICIT** | | |
| **Current liabilities** | | |
| Current portion of long–term debt | $ 49 | $ 47 |
| Short–term borrowings | 596 | 579 |
| Accounts payable | | |
| — third parties | 1,523 | 1,506 |
| — related parties | 53 | 48 |
| Fair value of derivative instruments | 85 | 85 |
| Accrued expenses and other current liabilities | 455 | 569 |
| **Total current liabilities** | 2,761 | 2,834 |
| Long–term debt, net of current portion | 4,546 | 4,421 |
| Deferred income tax liabilities | 106 | 89 |
| Accrued postretirement benefits | 823 | 820 |
| Other long–term liabilities | 196 | 175 |
| **Total liabilities** | 8,432 | 8,339 |
| Commitments and contingencies | | |
| **Shareholder's deficit** | | |
| Common stock, no par value; unlimited number of shares authorized; 1,000 shares issued and outstanding as of September 30, 2016 and March 31, 2016 | — | — |
| Additional paid–in capital | 1,404 | 1,404 |
| Accumulated deficit | (1,028) | (963) |
| Accumulated other comprehensive loss | (467) | (500) |
| **Total deficit of our common shareholder** | (91) | (59) |
| **Noncontrolling interests** | (21) | — |
| **Total deficit** | (112) | (59) |
| **Total liabilities and deficit** | $ 8,320 | $ 8,280 |

See accompanying notes to the condensed consolidated financial statements.

**Novelis Inc.**

**CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS (unaudited)(in millions)**

| | Six Months Ended September 30, 2016 | Six Months Ended September 30, 2015 |
|---|---|---|
| **OPERATING ACTIVITIES** | | |
| Net loss | $ (65) | $ (73) |
| Adjustments to determine net cash used in operating activities: | | |
| Depreciation and amortization | 179 | 176 |
| Gain on unrealized derivatives and other realized derivatives in investing activities, net | (1) | (12) |
| Gain on assets held for sale | (2) | — |
| Loss on sale of business | 27 | — |
| Loss on sale of assets | 6 | 1 |
| Impairment charges | — | 2 |
| Loss on extinguishment of debt | 112 | 13 |
| Deferred income taxes | (4) | (44) |
| Amortization of fair value adjustments, net | 6 | 6 |
| Equity in net loss of non-consolidated affiliates | — | 2 |
| Loss (gain) on foreign exchange remeasurement of debt | 2 | (6) |
| Amortization of debt issuance costs and carrying value adjustments | 9 | 10 |
| Changes in assets and liabilities including assets and liabilities held for sale (net of effects from divestitures): | | |
| Accounts receivable | (159) | 127 |
| Inventories | (115) | 87 |
| Accounts payable | 22 | (384) |
| Other current assets | 22 | 10 |
| Other current liabilities | (106) | 25 |
| Other noncurrent assets | (9) | 19 |
| Other noncurrent liabilities | 49 | (22) |
| **Net cash used in operating activities** | (27) | (63) |
| **INVESTING ACTIVITIES** | | |
| Capital expenditures | (90) | (204) |
| Proceeds from sales of assets, third party, net of transaction fees and hedging | 1 | 1 |
| Outflows from the sale of a business, net of transaction fees | (13) | — |
| Proceeds (outflows) from investment in and advances to non-consolidated affiliates, net | 9 | (4) |
| Proceeds (outflows) from settlement of other undesignated derivative instruments, net | 6 | (14) |
| **Net cash used in investing activities** | (87) | (221) |
| **FINANCING ACTIVITIES** | | |
| Proceeds from issuance of long-term and short-term borrowings | 2,765 | 140 |
| Principal payments of long-term and short-term borrowings | (2,609) | (135) |
| Revolving credit facilities and other, net | (3) | 123 |
| Dividends, noncontrolling interest | — | (1) |
| Debt issuance costs | (134) | (13) |
| **Net cash provided by financing activities** | 19 | 114 |
| Net decrease in cash and cash equivalents | (95) | (170) |
| **Effect of exchange rate changes on cash** | 12 | 4 |
| Cash and cash equivalents — beginning of period | 556 | 628 |
| Cash and cash equivalents — end of period | $ 473 | $ 462 |

See accompanying notes to the condensed consolidated financial statements.

## Novelis Inc.
## CONDENSED CONSOLIDATED STATEMENT OF DEFICIT (unaudited)
## (in millions, except number of shares)

| | Deficit of our Common Shareholder | | | | | | |
|---|---|---|---|---|---|---|---|
| | Common Stock | | | | | | |
| | Shares | Amount | Additional Paid-in Capital | Accumulated Deficit | Accumulated Other Comprehensive Loss (AOCI) | Non-controlling Interests | Total Deficit |
| **Balance as of March 31, 2016** | 1,000 | $ — | $ 1,404 | $ (963) | $ (500) | $ — | $ (59) |
| Net loss attributable to our common shareholder | — | — | — | (65) | — | — | (65) |
| Currency translation adjustment included in AOCI | — | — | — | — | 11 | — | 11 |
| Change in fair value of effective portion of cash flow hedges, net of tax benefit of $1 million included in AOCI | — | — | — | — | 3 | — | 3 |
| Change in pension and other benefits, net of tax provision of $9 million included in AOCI | — | — | — | — | 19 | 1 | 20 |
| Sale of subsidiary shares to a third party | — | — | — | — | — | (22) | (22) |
| **Balance as of September 30, 2016** | 1,000 | $ — | $ 1,404 | $ (1,028) | $ (467) | $ (21) | $ (112) |

See accompanying notes to the condensed consolidated financial statements.

## 1. BUSINESS AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

References herein to “Novelis,” the “Company,” “we,” “our,” or “us” refer to Novelis Inc. and its subsidiaries unless the context specifically indicates otherwise. References herein to “Hindalco” refer to Hindalco Industries Limited. Hindalco acquired Novelis in May 2007. All of the common shares of Novelis are owned directly by AV Metals Inc. and indirectly by Hindalco Industries Limited.

***Organization and Description of Business***

We produce aluminum sheet and light gauge products for use in the packaging market, which includes beverage and food cans and foil products, as well as for use in the automotive, transportation, electronics, architectural and industrial product markets. We have recycling operations in many of our plants to recycle post-consumer aluminum, such as used beverage cans and post-industrial aluminum, such as class scrap. As of September 30, 2016, we had manufacturing operations in ten countries on four continents: North America, South America, Asia and Europe, through 24 operating facilities, including recycling operations in eleven of these plants.

The September 30, 2016 condensed consolidated balance sheet data was derived from audited financial statements, but does not include all disclosures required by accounting principles generally accepted in the United States of America (U.S. GAAP). The accompanying unaudited condensed consolidated financial statements should be read in conjunction with our audited consolidated financial statements and accompanying notes in our Annual Report on Form 10-K for the year-ended March 31, 2016 filed with the United States Securities and Exchange Commission (SEC) on May 10, 2016. Management believes that all adjustments necessary for the fair statement of results, consisting of normally recurring items, have been included in the unaudited condensed consolidated financial statements for the interim periods presented.

***Consolidation Policy***

Our condensed consolidated financial statements include the assets, liabilities, revenues and expenses of all wholly-owned subsidiaries, majority-owned subsidiaries over which we exercise control and entities in which we have a controlling financial interest or are deemed to be the primary beneficiary. We eliminate all significant intercompany accounts and transactions from our condensed consolidated financial statements.

We use the equity method to account for our investments in entities that we do not control, but where we have the ability to exercise significant influence over operating and financial policies. Consolidated "Net loss attributable to our common shareholder" includes our share of net income (loss) of these entities. The difference between consolidation and the equity method impacts certain of our financial ratios because of the presentation of the detailed line items reported in the condensed consolidated financial statements for consolidated entities, compared to a two-line presentation of "Investment in and advances to non-consolidated affiliates" and "Equity in net loss of non-consolidated affiliates."

***Use of Estimates and Assumptions***

The preparation of our condensed consolidated financial statements in conformity with U.S. GAAP requires us to make estimates and assumptions. These estimates and assumptions affect the reported amounts of assets and liabilities, the disclosures of contingent assets and liabilities as of the date of the financial statements, and the reported amounts of revenues and expenses during the reporting periods. The principal areas of judgment relate to (1) the fair value of derivative financial instruments; (2) impairment of goodwill; (3) impairment of long lived assets and other intangible assets; (4) impairment and assessment of consolidation of equity investments; (5) actuarial assumptions related to pension and other postretirement benefit plans; (6) tax uncertainties and valuation allowances; and (7) assessment of loss contingencies, including environmental and litigation liabilities. Future events and their effects cannot be predicted with certainty, and accordingly, our accounting estimates require the exercise of judgment. The accounting estimates used in the preparation of our condensed consolidated financial statements may change as new events occur, as more experience is acquired, as additional information is obtained and as our operating environment changes. We evaluate and update our assumptions and estimates on an ongoing basis and may employ outside experts to assist in our evaluations. Actual results could differ from the estimates we have used.

***Recently Adopted Accounting Standards***

Effective for the first quarter fiscal 2017, we adopted Financial Accounting Standards Board (FASB) Accounting Standards Update (ASU) 2015-02, *Consolidations (Topic 810): Amendments to the Consolidations Analysis.* The amendment (i) modifies the evaluation of whether limited partnerships and similar legal entities are variable interest entities or voting interest entities, (ii) eliminates the presumption that a general partner should consolidate a limited partnership, (iii) affects the consolidation analysis of reporting entities that are involved with variable interest entities, particularly those that have fee arrangements and related party relationships, and (iv) provides a scope exception from consolidation guidance for reporting entities with interests in legal entities that are required to comply with or operate in accordance with requirements that are similar to those in Rule 2a-7 of the Investment Company Act of 1940 for registered money market funds. There was no impact upon adoption.

Effective for the first quarter of fiscal 2017, we adopted FASB ASU 2015-03, *Interest - Imputation of Interest (Subtopic 835-30): Simplifying the Presentation of Debt Issuance Costs,* which requires the debt issuance costs related to a recognized debt liability be presented in the balance sheet as a direct deduction from the carrying amount of that debt liability, consistent with debt discounts. The recognition and measurement guidance for debt issuance costs are not affected by the amendments in this update. In August 2015, the FASB issued ASU 2015-15, a clarifying amendment, allowing for debt issuance costs related to lines of credit being presented as an asset and subsequently amortizing the deferred debt issuance costs ratably over the term of the line-of-credit arrangement, regardless of whether there are any outstanding borrowings on the line of credit arrangement. The impact of the adoption was a decrease in “Other long-term assets” and “Long-term debt, net of current portion” in the condensed consolidated balance sheets as of March 31, 2016 of $30 million. We made the policy election to continue to present debt issuance costs related to lines of credit as an asset.

Effective for the first quarter of fiscal 2017, we adopted the FASB ASU 2015-11, *Inventory (Topic 330): Simplifying the Measurement of Inventory*, which removes the requirement to measure inventory at the lower of cost or market whereas market could be replacement cost, net realizable value, or net realizable value less an approximately normal profit margin, and requires an entity to measure inventory at the lower of cost or net realizable value. There was no impact upon adoption.

We early adopted as of March 31, 2016 and on a prospective basis, ASU 2015-17, *Income Taxes (Topic 740): Balance Sheet Classification of Deferred Taxes,* which required all deferred taxes and liabilities, along with any related valuation allowance, be classified as non-current on the balance sheet.

Effective for fiscal year 2017, we adopted ASU 2015-07, *Fair Value Measurement (Topic 820): Disclosures for Investments in Certain Entities That Calculate Net Asset Value per Share (or Its Equivalent),* which remove the requirement to categorize within the fair value hierarchy all investments for which fair value is measured using the net asset value per share practical expedient. We will apply the amendments retrospectively to all periods presented. Early adoption is permitted. Adoption of this standard may impact the presentation of certain pension plan assets in our postretirement benefit plans footnote disclosure on Form 10-K for the year ended March 31, 2017.

***Recently Issued Accounting Standards***

In May 2014, the FASB issued ASU 2014-09, *Revenue from Contracts with Customers (Topic 606)*, which, when effective, will supersede the guidance in former ASC 605, *Revenue Recognition*. The new guidance requires entities to recognize revenue based on 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. The guidance is effective for annual periods beginning after December 15, 2016 and interim periods within that year. Early adoption is not permitted. In August 2015, the FASB issued ASU 2015-14 *Revenue from Contracts with Customers (Topic 606): Deferral of Effective Date,* which provides an optional one-year deferral of the effective date. Subsequent to these amendments, further clarifying amendments have been issued. We are currently evaluating the impact of the standard on our consolidated financial position and results of operations.

In February 2016, the FASB issued ASU 2016-02, *Leases (Topic 842),* which when effective will require organizations that lease assets (e.g., through "leases") to recognize assets and liabilities for the rights and obligations created by the leases on balance sheet. A lessee will be required to recognize assets and liabilities for leases with terms that exceed twelve months. The standard will also require disclosures to help investors and financial statement users better understand the amount, timing and uncertainty of cash flows arising from leases. The disclosures include qualitative and quantitative requirements, providing additional information about the amounts recorded in the financial statements. The guidance is effective for annual periods beginning after December 15, 2018, and interim periods within those annual periods. Early adoption is permitted. We are currently evaluating the impact of this standard on our consolidated financial position and results of operations.

In August 2016, the FASB issued ASU 2016-15, *Statement of Cash Flows (Topic 230) - Classification of Certain Cash Receipts and Cash Payments.* The new guidance applies to all entities that are required to present a statement of cash flows under Topic 230 and addresses specific cash flow items to provide clarification and reduce the diversity in presentation of these items. The guidance is effective for annual periods beginning after December 15, 2017 and interim periods within that year. Early adoption is permitted. Adoption of this standard is not expected to have any impact on our consolidated financial position and results of operations as our current policies are aligned with this standard.

## 2. RESTRUCTURING AND IMPAIRMENT

"Restructuring and impairment, net" for the six months ended September 30, 2016 and 2015 was $3 million and $19 million, respectively.

The following table summarizes our restructuring liability activity and other impairment charges (in millions).

| | Total restructuring liabilities | Other restructuring charges (A) | Total restructuring charges | Other impairments (B) | Total restructuring and impairments, net |
|---|---|---|---|---|---|
| **Balance as of March 31, 2016** | $ 27 | | | | |
| Expenses | 3 | $ — | $ 3 | $ — | $ 3 |
| Cash payments | (7) | | | | |
| Foreign currency (C) | 2 | | | | |
| **Balance as of September 30, 2016** | $ 25 | | | | |

(A) Other restructuring charges include period expenses that were not recorded through the restructuring liability.
(B) Other impairment charges not related to a restructuring activity.
(C) This primarily relates to the remeasurement of Brazilian real denominated restructuring liabilities.

As of September 30, 2016, $17 million of restructuring liabilities was included in "Accrued expenses and other current liabilities" and $8 million was included in "Other long-term liabilities" on our condensed consolidated balance sheet. As of September 30, 2016, there was no restructuring liability for the North America segment, $1 million for the Asia segment, and $2 million for the Corporate office. There was also $1 million in payments for the Asia segment during the six months ended September 30, 2016. The other regional restructuring activities are described in more detail below.

*Europe*

The following table summarizes our restructuring activity for the Europe segment by plan (in millions).

| | Six Months Ended September 30, 2016 | Year Ended March 31, 2016 | Prior to April 1, 2015 |
|---|---|---|---|
| *Restructuring charges - Europe* | | | |
| Corporate Restructuring Program | | | |
| Severance | $ 2 | $ 4 | $ 46 |
| **Total restructuring charges - Europe** | $ 2 | $ 4 | $ 46 |
| | | | |
| *Restructuring payments - Europe* | | | |
| Severance | $ (3) | $ (6) | |
| **Total restructuring payments - Europe** | $ (3) | $ (6) | |

The Company implemented a series of restructuring actions at the global headquarters office and in the Europe region which include staff rationalization activities and the shutdown of facilities to improve our operations in Europe.

As of September 30, 2016, the restructuring liability for the Europe segment was $3 million, which relates to severance charges.

*South America*

The following table summarizes our restructuring activity for the South America segment by plan (in millions).

| | Six Months Ended September 30, 2016 | Year Ended March 31, 2016 | Prior to April 1, 2015 |
|---|---|---|---|
| *Restructuring charges - South America* | | | |
| Ouro Preto closures | | | |
| Severance | $ — | $ 2 | $ 19 |
| Asset impairments (A) | — | — | 6 |
| Environmental charges | — | (1) | 22 |
| Contract termination and other exit related costs | 1 | 2 | 11 |
| | | | |
| Other past restructuring programs | — | — | 21 |
| **Total restructuring charges - South America** | $ 1 | $ 3 | $ 79 |
| | | | |
| *Restructuring payments - South America* | | | |
| Severance | $ (1) | $ (2) | |
| Other | (2) | (3) | |
| **Total restructuring payments - South America** | $ (3) | $ (5) | |

(A) These charges were not recorded through the restructuring liability.

We ceased our smelter operations in Ouro Preto, Brazil, in December 2014. This decision was made in an effort to further align our global sustainability strategy, and exit non-core operations. Certain charges associated with this closure are reflected within the "Ouro Preto closures" section above, along with our closure of a pot line in Ouro Preto, Brazil, in fiscal 2013.

As of September 30, 2016, the restructuring liability for the South America segment was $19 million and related to $12 million of environmental charges and $7 million of other contract termination and other exit related costs.

For additional information on environmental charges see Note 16 – Commitments and Contingencies.

## 3. INVENTORIES

"Inventories" consist of the following (in millions).

| | September 30, 2016 | March 31, 2016 |
|---|---|---|
| Finished goods | $ 360 | $ 295 |
| Work in process | 475 | 416 |
| Raw materials | 292 | 322 |
| Supplies | 153 | 147 |
| **Inventories** | $ 1,280 | $ 1,180 |

## 4. ASSETS HELD FOR SALE

We are focused on capturing the global growth we see in our premium product markets of beverage can, automotive and specialty products. We continually analyze our product portfolio to ensure we are focused on growing in attractive market segments. The following transactions relate to exiting certain non-core operations to focus on our growth strategy in the premium product markets.

We made the decision to sell two hydroelectric power generation facilities in South America, with a net book value of $4 million as of March 31, 2016, which were classified as "Assets held for sale" in our condensed consolidated balance sheet. During the three months ended September 30, 2016, we recorded a $1 million gain from our sale of one hydroelectric power generation facility. The remaining hydroelectric power generation assets have a net book value of $3 million as of September 30, 2016 and continues to be reflected as "Assets held for sale" pending the resolution of certain operating license issues.

In March 2016, we made a decision to sell properties in Ouro Preto, Brazil following the closure of our smelter facility on the property. The properties had a net book value of $1 million, which were classified as "Assets held for sale" in our condensed consolidated balance sheet as of March 31, 2016. "Gain on assets held for sale" during the six months ended September 30, 2016 includes a $1 million gain from our sale of these assets.

## 5. CONSOLIDATION

*Variable Interest Entities (VIE)*

The entity that has a controlling financial interest in a VIE is referred to as the primary beneficiary and consolidates the VIE. An entity is deemed to have a controlling financial interest and is the primary beneficiary of a VIE if it has both the power to direct the activities of the VIE that most significantly impact the VIE's economic performance and an obligation to absorb losses or the right to receive benefits that could potentially be significant to the VIE.

We have a joint interest in Logan Aluminum Inc. (Logan) with Tri-Arrows Aluminum Inc. (Tri-Arrows). Logan processes metal received from Novelis and Tri-Arrows and charges the respective partner a fee to cover expenses. Logan is thinly capitalized and relies on the regular reimbursement of costs and expenses by Novelis and Tri-Arrows to fund its operations. This reimbursement is considered a variable interest as it constitutes a form of financing the activities of Logan. Other than these contractually required reimbursements, we do not provide other material support to Logan. Logan's creditors do not have recourse to our general credit.

We have the ability to make decisions regarding Logan's production operations. We also have the ability to take the majority share of production and associated costs. These facts qualify us as Logan's primary beneficiary and this entity is consolidated for all periods presented. All significant intercompany transactions and balances have been eliminated.

The following table summarizes the carrying value and classification of assets and liabilities owned by the Logan joint venture and consolidated in our condensed consolidated balance sheets (in millions). There are significant other assets used in the operations of Logan that are not part of the joint venture, as they are directly owned and consolidated by Novelis or Tri-Arrows.

| | September 30, 2016 | March 31, 2016 |
|---|---|---|
| **Assets** | | |
| **Current assets** | | |
| Cash and cash equivalents | $ 5 | $ 3 |
| Accounts receivable | 37 | 33 |
| Inventories | 58 | 61 |
| Prepaid expenses and other current assets | 1 | 2 |
| **Total current assets** | 101 | 99 |
| Property, plant and equipment, net | 18 | 21 |
| Goodwill | 12 | 12 |
| Deferred income taxes | 88 | 84 |
| Other long-term assets | 18 | 8 |
| **Total assets** | $ 237 | $ 224 |
| **Liabilities** | | |
| **Current liabilities** | | |
| Accounts payable | $ 31 | $ 30 |
| Accrued expenses and other current liabilities | 16 | 15 |
| **Total current liabilities** | 47 | 45 |
| Accrued postretirement benefits | 220 | 214 |
| Other long-term liabilities | 3 | 3 |
| **Total liabilities** | $ 270 | $ 262 |

## 6. INVESTMENT IN AND ADVANCES TO NON-CONSOLIDATED AFFILIATES AND RELATED PARTY TRANSACTIONS

We have a non-consolidated affiliate, Aluminium Norf GmbH (Alunorf), which serves our Europe region with rolling and remelt tolling services. Included in the accompanying condensed consolidated financial statements are transactions and balances arising from business we conducted with this non-consolidated affiliate, which we classify as related party transactions and balances. We account for this affiliate using the equity method.

The following table summarizes the results of operations of this equity method affiliate, and the nature and amounts of significant transactions we had with our non-consolidated affiliate (in millions). The amounts in the table below are disclosed at 100% of the operating results of this affiliate.

| | Three Months Ended September 30, | | Six Months Ended September 30, | |
|---|---|---|---|---|
| | 2016 | 2015 | 2016 | 2015 |
| Net sales | $ 124 | $ 117 | $ 245 | $ 234 |
| Costs and expenses related to net sales | 122 | 115 | 242 | 233 |
| Expense for taxes on income | 2 | 3 | 1 | 2 |
| Net (loss) income | $ — | $ (1) | $ 2 | $ (1) |
| Purchases of tolling services from Alunorf | $ 62 | $ 59 | $ 123 | $ 117 |

Additionally, we earned less than $1 million of interest income on a receivable due from Alunorf for the six months ended September 30, 2016.

The following table describes the period-end account balances that we had with Alunorf, shown as related party balances in the accompanying condensed consolidated balance sheets (in millions). We had no other material related party balances with Alunorf.

| | September 30, 2016 | March 31, 2016 |
|---|---|---|
| Accounts receivable-related parties | $ 59 | $ 59 |
| Other long-term assets-related parties | $ 6 | $ 16 |
| Accounts payable-related parties | $ 53 | $ 48 |

We have a receivable due from Alunorf, which is presented in "Other long-term assets-related parties" during each of the periods in the table above. We believe collection of the full receivable from Alunorf is probable; thus no allowance for loan loss was recorded as of September 30, 2016 and March 31, 2016.

We have guaranteed the indebtedness for a credit facility on behalf of Alunorf. The guarantee is limited to 50% of the outstanding debt, not to exceed 6 million euros. As of September 30, 2016, there were no amounts outstanding under our guarantee with Alunorf as there were no outstanding borrowings. We have also guaranteed the payment of early retirement benefits on behalf of Alunorf. As of September 30, 2016, this guarantee totaled $2 million.

***Transactions with Hindalco***

We occasionally have related party transactions with our indirect parent company, Hindalco. During the six months ended September 30, 2016 and 2015, “Net sales” were less than $1 million between Novelis and Hindalco. As of September 30, 2016 and March 31, 2016, there were less than $1 million in "Accounts receivable, net" outstanding related to transactions with Hindalco.

During the six months ended September 30, 2016, Novelis purchased $3 million in raw materials from Hindalco that were fully paid for during the quarter ended September 30, 2016. There were no such comparable purchases in the prior year.

## 7. DEBT

Debt consisted of the following (in millions).

| | | September 30, 2016 | | | | March 31, 2016 | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Interest Rates (A) | Principal | Unamortized Carrying Value Adjustments | | Carrying Value | Principal | Unamortized Carrying Value Adjustments | | Carrying Value |
| **Third party debt:** | | | | | | | | | |
| Short-term borrowings | 2.65% | $ 596 | $ — | | $ 596 | $ 579 | $ — | | $ 579 |
| **Novelis Inc.** | | | | | | | | | |
| Floating rate Term Loan Facility, due through June 2022 | 4.00% | 1,778 | (23) | (B) | 1,755 | 1,787 | (25) | (B) | 1,762 |
| 8.375% Senior Notes, due December 2017 | 8.375% | — | — | | — | 1,100 | (6) | | 1,094 |
| 8.75% Senior Notes, due December 2020 | 8.75% | — | — | | — | 1,400 | (15) | (B) | 1,385 |
| Capital lease obligations, due through July 2017 | 3.64% | 3 | — | | 3 | 5 | — | | 5 |
| **Novelis Corporation** | | | | | | | | | |
| 5.875% Senior Notes, due September 2026 | 5.875% | 1,500 | (25) | (B) | 1,475 | — | — | | — |
| 6.25% Senior Notes, due August 2024 | 6.25% | 1,150 | (20) | (B) | 1,130 | — | — | | — |
| **Novelis Korea Limited** | | | | | | | | | |
| Bank loans, due through September 2020 (KRW 226 billion) | 2.50% | 206 | — | | 206 | 195 | — | | 195 |
| **Novelis Switzerland S.A.** | | | | | | | | | |
| Capital lease obligation, due through December 2019 (Swiss francs (CHF) 20 million) | 7.50% | 21 | (1) | (B) | 20 | 23 | (1) | (B) | 22 |
| **Novelis do Brasil Ltda.** | | | | | | | | | |
| BNDES loans, due through April 2021 (BRL 14 million) | 5.94% | 4 | — | (B) | 4 | 5 | (1) | (B) | 4 |
| **Other** | | | | | | | | | |
| Other debt, due through May 2021 | 4.75% | 2 | — | | 2 | 1 | — | | 1 |
| **Total debt** | | 5,260 | (69) | | 5,191 | 5,095 | (48) | | 5,047 |
| Less: Short-term borrowings | | (596) | — | | (596) | (579) | — | | (579) |
| Current portion of long term debt | | (49) | — | | (49) | (47) | — | | (47) |
| **Long-term debt, net of current portion** | | $ 4,615 | $ (69) | | $ 4,546 | $ 4,469 | $ (48) | | $ 4,421 |

(A) Interest rates are the fixed or variable rates as specified in the debt instruments (not the effective interest rate) as of September 30, 2016, and therefore, exclude the effects of related interest rate swaps, accretion/amortization of fair value adjustments as a result of purchase accounting in connection with Hindalco's purchase of Novelis and accretion/amortization of debt issuance costs related to the debt exchange completed in fiscal 2009 and the series of refinancing transactions and additional borrowings we completed in fiscal 2011 and thereafter. We present stated rates of interest because they reflect the rate at which cash will be paid for future debt service.

(B) Amounts include unamortized debt issuance costs and debt discounts.

Principal repayment requirements for our total debt over the next five years and thereafter (excluding unamortized carrying value adjustments and using exchange rates as of September 30, 2016 for our debt denominated in foreign currencies) are as follows (in millions).

| As of September 30, 2016 | Amount |
|---|---|
| Short-term borrowings and current portion of long-term debt due within one year | $ 625 |
| 2 years | 93 |
| 3 years | 150 |
| 4 years | 34 |
| 5 years | 21 |
| Thereafter | 4,337 |
| Total | $ 5,260 |

*Senior Secured Credit Facilities*

As of September 30, 2016, the senior secured credit facilities consisted of (i) a $1.8 billion seven-year secured term loan credit facility (Term Loan Facility) and (ii) a $1.2 billion five-year asset based loan facility (ABL Revolver). As of September 30, 2016, $18 million of the Term Loan Facility is due within one year.

In June 2015, we entered into a $200 million secured lien revolving facility (the Subordinated Lien Revolver) with a maturity date of September 10, 2016. In June 2016, we amended the Subordinated Lien Revolver to downsize the facility to $150 million and extend the maturity date to October 30, 2016. The Subordinated Lien Revolver was subsequently extinguished in July 2016.

In June 2015, we entered into a Refinancing Amendment with respect to our Term Loan Facility. The Amendment increases the principal amount of the Term Loan Facility from $1.7 billion to $1.8 billion and extends the final maturity from December 17, 2017 to June 2, 2022; provided that, in the event that any series of our senior unsecured notes remain outstanding 92 days prior to its maturity date, then the Term Loan Facility will mature on such date, subject to limited exceptions. The loans under the Term Loan Facility accrue interest at the higher of LIBOR and 0.75% plus a 3.25% spread. The Refinancing Amendment eliminates the senior secured net leverage covenant that requires us to maintain a minimum senior secured net leverage ratio (subject to the terms disclosed in the preceding paragraph). In addition, certain negative covenants were amended to increase the Company’s operational flexibility and incur other debt.

In October 2014, we amended and extended our ABL Revolver by entering into a $1.2 billion, five-year, senior secured ABL Revolver. The interest rate for a loan under the ABL Revolver is either (i) prime rate plus a spread of 0.50% to 1.00% based on excess availability or (ii) of LIBOR plus a spread of 1.50% to 2.00% based on excess availability. The ABL Revolver has a provision that allows the facility to be increased by an additional $500 million. The ABL Revolver has various customary covenants including maintaining a minimum fixed charge coverage ratio of 1.25 to 1 if excess availability is less than the greater of (1) $110 million and (2) 12.5% of the lesser of (a) the maximum size of the ABL Revolver and (b) the borrowing base. The fixed charge coverage ratio will be equal to the ratio of (1) (a) ABL Revolver defined Earnings Before Interest, Taxes, Depreciation and Amortization less (b) maintenance capital expenditures less (c) cash taxes; to (2) (a) interest expense plus (b) scheduled principal payments plus (c) dividends to the Company's direct holding company to pay certain taxes, operating expenses and management fees and repurchases of equity interests from employees, officers and directors. The ABL Revolver matures on October 6, 2019; provided that, in the event that any of the Notes, the Term Loan Facility, or certain other indebtedness are outstanding (and not refinanced with a maturity date later than April 6, 2020) 90 days prior to their respective maturity dates, then the ABL Revolver will mature 90 days prior to the maturity date for the Notes, the Term Loan Facility or such other indebtedness, as applicable; unless excess availability under the ABL Revolver is at least (i) 25% of the lesser of (x) the total ABL Revolver commitment and (y) the then applicable borrowing base and (ii) 20% of the lesser of (x) the total ABL Revolver commitment and (y) the then applicable borrowing base, and a minimum fixed charge ratio test of at least 1.25 to 1 is met.

The senior secured credit facilities contain various affirmative covenants, including covenants with respect to our financial statements, litigation and other reporting requirements, insurance, payment of taxes, employee benefits and (subject to certain limitations) causing new subsidiaries to pledge collateral and guarantee our obligations. The senior secured credit facilities also include various customary negative covenants and events of default, including limitations on our ability to (1) make certain restricted payments, (2) incur additional indebtedness, (3) sell certain assets, (4) enter into sale and leaseback transactions, (5) make investments, loans and advances, (6) pay dividends or returns of capital and distributions beyond certain amounts, (7) engage in mergers, amalgamations or consolidations, (8) engage in certain transactions with affiliates, and (9) prepay certain indebtedness. The senior secured credit facilities include a cross-default provision under which lenders could accelerate repayment of the loans if a payment or non-payment default arises under any other indebtedness with an aggregate principal amount of more than $100 million (or, in the case of the Term Loan Facility and Subordinated Lien Revolver, under the ABL Revolver regardless of the amount outstanding). Substantially all of our assets are pledged as collateral under the senior secured credit facilities.

*Short-Term Borrowings*

As of September 30, 2016, our short-term borrowings were $596 million, consisting of $392 million of loans under our ABL Revolver, $103 million in Novelis Brazil loans, $53 million (CNY 355 million) in Novelis China loans, $40 million (KRW 44 billion) in Novelis Korea loans, $7 million (VND 157 billion) in Novelis Vietnam loans and $1 million in other loans.

As of September 30, 2016, $14 million of the ABL Revolver availability was utilized for letters of credit, and we had $320 million in remaining availability under the ABL Revolver.

In fiscal years 2015 and 2016, Novelis Korea has entered into various short-term facilities, including revolving loan facilities and committed credit lines. As of September 30, 2016, we had $215 million (KRW 236 billion) in remaining availability under these facilities.

In fiscal year 2016, Novelis Middle East and Africa entered into various short-term facilities, including revolving facility agreements totaling $40 million. As of September 30, 2016, we had $40 million in remaining availability under these facilities.

In fiscal year 2015, Novelis China entered into a committed facility. As of September 30, 2016, we had $1 million remaining availability under this facility.

*Senior Notes*

On August 29, 2016, Novelis Corporation, an indirect wholly owned subsidiary of Novelis Inc., issued $1.15 billion in aggregate principal amount of 6.25% Senior Notes Due 2024 (the 2024 Notes). The 2024 Notes are guaranteed, jointly and severally, on a senior unsecured basis, by Novelis Inc. and certain of its subsidiaries.

Additionally, on September 14, 2016, Novelis Corporation issued $1.5 billion in aggregate principal amount of 5.875% Senior Notes Due 2026 (the 2026 Notes, and together with the 2024 Notes, the Notes). The 2026 Notes are guaranteed, jointly and severally, on a senior unsecured basis, by Novelis Inc. and certain of its subsidiaries.

The proceeds from the issuances of the 2024 Notes and the 2026 Notes were used to extinguish our 8.375% 2017 Senior Notes and our 8.75% 2020 Senior Notes, respectively. In addition, we paid combined tender offer premiums and issuance costs of $134 million associated with the refinancing transactions, including fees paid to lenders, arrangers, and outside professionals such as attorneys and rating agencies. We recorded a “Loss on extinguishment of debt” of $112 million in the second quarter of fiscal 2017 related to the refinancing transactions. We incurred debt issuance costs of $45 million on the new Senior Notes which were capitalized and will be amortized as an increase to "Interest expense and amortization of debt issuance costs" over the term of these instruments.

The Notes contain customary covenants and events of default that will limit our ability and, in certain instances, the ability of certain of our subsidiaries to (1) incur additional debt and provide additional guarantees, (2) pay dividends or return capital beyond certain amounts and make other restricted payments, (3) create or permit certain liens, (4) make certain asset sales, (5) use the proceeds from the sales of assets and subsidiary stock, (6) create or permit restrictions on the ability of certain of the Company's subsidiaries to pay dividends or make other distributions to the Company, (7) engage in certain transactions with affiliates, (8) enter into sale and leaseback transactions, (9) designate subsidiaries as unrestricted subsidiaries and (10) consolidate, merge or transfer all or substantially all of our assets and the assets of certain of our subsidiaries. During any future period in which either Standard & Poor's Ratings Group, Inc. or Moody's Investors Service, Inc. has assigned an investment grade credit rating to the Notes and no default or event of default under the indentures governing the Notes has occurred and is continuing, some of the covenants will be suspended. The Notes include a cross-acceleration event of default triggered if any other indebtedness with an aggregate principal amount of more than $100 million is (1) accelerated prior to its maturity or (2) not repaid at its maturity. As of September 30, 2016, we were in compliance with the covenants in the Notes. The Notes also contain customary call protection provisions for our bond holders that extend through August 2022 for the 2024 Notes and through September 2024 for the 2026 Notes.

*Korean Bank Loans*

As of September 30, 2016, Novelis Korea had $20 million (KRW 22 billion) of outstanding long-term loans with various banks due within one year. The loans have variable interest rates with base rates tied to Korea's 91-day CD rate plus an applicable spread ranging from 0.91% to 1.58%.

*Brazil BNDES Loans*

Novelis Brazil entered into loan agreements with Brazil’s National Bank for Economic and Social Development (the BNDES long-term loans) related to the plant expansion in Pindamonhangaba, Brazil (Pinda). As of September 30, 2016 there are $2 million of BNDES long-term loans due within one year.

*Other Long-term debt*

In December 2004, we entered into a 15-year capital lease obligation with Alcan Inc. for assets in Sierre, Switzerland, which has an interest rate of 7.5% and fixed quarterly payments of CHF 1.7 million (USD $1.8 million).

During fiscal 2013 and 2014, Novelis Inc. entered into various capital lease arrangements to upgrade and expand our information technology infrastructure.

As of September 30, 2016, we had $2 million of other debt, including certain capital lease obligations, with due dates through May 2021.

*Interest Rate Swaps*

We use interest rate swaps to manage our exposure to changes in benchmark interest rates which impact our variable-rate debt. See Note 11- Financial Instruments and Commodity Contracts for further information about these interest rate swaps.

## 8. SHARE-BASED COMPENSATION

The Company's board of directors has authorized long term incentive plans (LTIPs), under which Hindalco stock appreciation rights (Hindalco SARs), Novelis stock appreciation rights (Novelis SARs), phantom restricted stock units (RSUs), and Novelis Performance Units (Novelis PUs) are granted to certain executive officers and key employees. The Hindalco SARs vest at the rate of 25% or 33% per year, subject to the achievement of an annual performance target, and expire seven years from their original grant date. The performance criterion for vesting of the Hindalco SARs is based on the actual overall Novelis operating EBITDA compared to the target established and approved each fiscal year. The RSUs are based on Hindalco's stock price. The RSUs vest either in full three years from the grant date or 33% per year over three years, subject to continued employment with the Company, but are not subject to performance criteria. In May 2016, the Company's board of directors approved the issuance of Novelis PUs which have a fixed $100 value per unit and will vest in full three years from the grant date, subject to specific performance criteria compared to the established target. The Company made a voluntary offer to the participants with outstanding Novelis SARs granted for fiscal years 2012 through 2016 to exchange their Novelis SARs for an equivalently valued number of Novelis PUs. During the six months ended September 30, 2016, the voluntary exchange resulted in 1,054,662 Novelis SARs being modified into PUs which are not based on Novelis' nor Hindalco's fair values and are accounted for outside the scope of ASC 718, *Compensation - Stock Compensation*. This exchange was accounted for as a modification. There were 157,135 of Novelis SARs that remain outstanding as of September 30, 2016.

During the six months ended September 30, 2016, we granted 5,280,005 RSUs, 3,596,564 Hindalco SARs, and no Novelis SARs. Total compensation expense (benefit) related to these plans for the respective periods was $10 million and $(1) million for the three months ended September 30, 2016 and 2015, respectively; and $9 million and $(7) million for the six months ended September 30, 2016 and 2015, respectively. These amounts are included in “Selling, general and administrative expenses” in our condensed consolidated statements of operations. As the performance criteria for fiscal years 2018, 2019 and 2020 have not yet been established, measurement periods for Hindalco SARs and Novelis SARs relating to those periods have not yet commenced. As a result, only compensation expense for vested and current year Hindalco SARs and Novelis SARs has been recorded. As of September 30, 2016, the outstanding liability related to share-based compensation was $14 million.

The cash payments made to settle SAR liabilities were $1 million and $2 million in the six months ended September 30, 2016 and 2015, respectively. Total cash payments made to settle Hindalco RSUs were $2 million and $5 million in the six months ended September 30, 2016 and 2015, respectively. Unrecognized compensation expense related to the non-vested Hindalco SARs (assuming all future performance criteria are met) was $5 million, which is expected to be recognized over a weighted average period of 1.6 years. Unrecognized compensation expense related to the non-vested Novelis SARs (assuming all future performance criteria are met) was less than $1 million, which is expected to be recognized over a weighted average period of 1.5 years. Unrecognized compensation expense related to the RSUs was $3 million, which will be recognized over the remaining weighted average vesting period of 1.7 years.

## 9. POSTRETIREMENT BENEFIT PLANS

Our pension obligations relate to: (1) funded defined benefit pension plans in the U.S., Canada, Switzerland and the U.K.; (2) unfunded defined benefit pension plans in Germany; (3) unfunded lump sum indemnities payable upon retirement to employees in France, Malaysia and Italy; and (4) partially funded lump sum indemnities in South Korea. Our other postretirement obligations (Other Benefits, as shown in certain tables below) include unfunded health care and life insurance benefits provided to retired employees in the U.S., Canada and Brazil.

Components of net periodic benefit cost (credit) for all of our postretirement benefit plans are shown in the tables below (in millions).

| | Pension Benefit Plans | | Other Benefit Plans | |
|---|---|---|---|---|
| | Three Months Ended September 30, | | Three Months Ended September 30, | |
| | 2016 | 2015 | 2016 | 2015 |
| Service cost | $ 12 | $ 12 | $ 1 | $ 1 |
| Interest cost | 16 | 14 | 2 | 2 |
| Expected return on assets | (15) | (17) | — | — |
| Amortization — losses, net | 9 | 9 | 1 | 1 |
| Amortization — prior service (credit) cost, net | (1) | — | 1 | (7) |
| Net periodic benefit cost (credit) | $ 21 | $ 18 | $ 5 | $ (3) |

| | Pension Benefit Plans | | Other Benefit Plans | |
|---|---|---|---|---|
| | Six Months Ended September 30, | | Six Months Ended September 30, | |
| | 2016 | 2015 | 2016 | 2015 |
| Service cost | $ 23 | $ 24 | $ 3 | $ 2 |
| Interest cost | 31 | 29 | 3 | 3 |
| Expected return on assets | (31) | (34) | — | — |
| Amortization — losses, net | 20 | 18 | 2 | 2 |
| Amortization — prior service (credit) cost, net | (1) | (1) | 1 | (14) |
| Net periodic benefit cost (credit) | $ 42 | $ 36 | $ 9 | $ (7) |

The average expected long-term rate of return on plan assets is 5.4% in fiscal 2017.

***Employer Contributions to Plans***

For pension plans, our policy is to fund an amount required to provide for contractual benefits attributed to service to date, and amortize unfunded actuarial liabilities typically over periods of 15 years or less. We also participate in savings plans in Canada and the U.S., as well as defined contribution pension plans in the U.S., U.K., Canada, Germany, Italy, Switzerland, Malaysia and Brazil. We contributed the following amounts to all plans (in millions).

| | Three Months Ended September 30, | | Six Months Ended September 30, | |
|---|---|---|---|---|
| | 2016 | 2015 | 2016 | 2015 |
| Funded pension plans | $ 4 | $ 3 | $ 7 | $ 6 |
| Unfunded pension plans | 3 | 3 | 6 | 5 |
| Savings and defined contribution pension plans | 7 | 6 | 13 | 13 |
| Total contributions | $ 14 | $ 12 | $ 26 | $ 24 |

During the remainder of fiscal 2017, we expect to contribute an additional $14 million to our funded pension plans, $6 million to our unfunded pension plans and $11 million to our savings and defined contribution plans.

## 10. CURRENCY (GAINS) LOSSES

The following currency (gains) losses are included in “Other expense (income), net” in the accompanying condensed consolidated statements of operations (in millions).

| | Three Months Ended September 30, | | Six Months Ended September 30, | |
|---|---|---|---|---|
| | 2016 | 2015 | 2016 | 2015 |
| Loss (gain) on remeasurement of monetary assets and liabilities, net | $ 4 | $ (46) | $ 15 | $ (51) |
| Loss released from accumulated other comprehensive loss | — | 1 | — | 1 |
| (Gain) loss recognized on balance sheet remeasurement currency exchange contracts, net | (6) | 48 | (14) | 49 |
| Currency (gains) losses, net | $ (2) | $ 3 | $ 1 | $ (1) |

The following currency losses are included in “Accumulated other comprehensive loss, net of tax” and “Noncontrolling interests” in the accompanying condensed consolidated balance sheets (in millions).

| | Six Months Ended September 30, 2016 | Year Ended March 31, 2016 |
|---|---|---|
| Cumulative currency translation adjustment — beginning of period | $ (197) | $ (214) |
| Effect of changes in exchange rates | (5) | 17 |
| Sale of investment in foreign entities (A) | 16 | — |
| Cumulative currency translation adjustment — end of period | $ (186) | $ (197) |

(A) We reclassified $16 million of cumulative currency losses from AOCI to "Other expense (income), net" in the six months ended September 30, 2016. Refer to Note 14 - Other Expense (Income), Net for further details.

## 11. FINANCIAL INSTRUMENTS AND COMMODITY CONTRACTS

The following tables summarize the gross fair values of our financial instruments and commodity contracts as of September 30, 2016 and March 31, 2016 (in millions).

| | September 30, 2016 | | | | |
|---|---|---|---|---|---|
| | Assets | | Liabilities | | Net Fair Value |
| | Current | Noncurrent (A) | Current | Noncurrent (A) | Assets / (Liabilities) |
| **Derivatives designated as hedging instruments:** | | | | | |
| *Cash flow hedges* | | | | | |
| Aluminum contracts | $ — | $ — | $ (25) | $ — | $ (25) |
| Currency exchange contracts | 30 | 4 | (2) | (4) | 28 |
| Energy contracts | — | — | (1) | (6) | (7) |
| Interest rate swaps | — | — | (1) | — | (1) |
| **Total derivatives designated as hedging instruments** | 30 | 4 | (29) | (10) | (5) |
| **Derivatives not designated as hedging instruments** | | | | | |
| Aluminum contracts | 33 | — | (31) | — | 2 |
| Currency exchange contracts | 27 | — | (22) | (1) | 4 |
| Energy contracts | 1 | — | (3) | — | (2) |
| **Total derivatives not designated as hedging instruments** | 61 | — | (56) | (1) | 4 |
| **Total derivative fair value** | $ 91 | $ 4 | $ (85) | $ (11) | $ (1) |

| | March 31, 2016 | | | | |
|---|---|---|---|---|---|
| | Assets | | Liabilities | | Net Fair Value |
| | Current | Noncurrent (A) | Current | Noncurrent(A) | Assets / (Liabilities) |
| **Derivatives designated as hedging instruments:** | | | | | |
| *Cash flow hedges* | | | | | |
| Aluminum contracts | $ 10 | $ — | $ (2) | $ — | $ 8 |
| Currency exchange contracts | 15 | 5 | (3) | (5) | 12 |
| Energy contracts | — | — | (4) | — | (4) |
| Interest rate swaps | — | — | — | (1) | (1) |
| *Net investment hedges* | | | | | |
| Currency exchange contracts | — | — | (1) | — | (1) |
| **Total derivatives designated as hedging instruments** | 25 | 5 | (10) | (6) | 14 |
| **Derivatives not designated as hedging instruments:** | | | | | |
| Aluminum contracts | 24 | — | (26) | — | (2) |
| Currency exchange contracts | 39 | — | (39) | (1) | (1) |
| Energy contracts | — | 1 | (10) | — | (9) |
| **Total derivatives not designated as hedging instruments** | 63 | 1 | (75) | (1) | (12) |
| **Total derivative fair value** | $ 88 | $ 6 | $ (85) | $ (7) | $ 2 |

(A) The noncurrent portions of derivative assets and liabilities are included in “Other long-term assets-third parties” and in “Other long-term liabilities”, respectively, in the accompanying condensed consolidated balance sheets.

**Aluminum**

We use derivative instruments to preserve our conversion margins and manage the timing differences associated with metal price lag. We use over-the-counter derivatives indexed to the London Metals Exchange (LME) (referred to as our "aluminum derivative forward contracts") to reduce our exposure to fluctuating metal prices associated with the period of time between the pricing of our purchases of inventory and the pricing of the sale of that inventory to our customers, which is known as "metal price lag." We also purchase forward LME aluminum contracts simultaneously with our sales contracts with customers that contain fixed metal prices. These LME aluminum forward contracts directly hedge the economic risk of future metal price fluctuations to better match the selling price of the metal with the purchase price of the metal. The volatility in local market premiums also results in metal price lag, although we do not have derivative contracts associated with local market premiums as these are not prevalent in the market.

Price risk exposure arises from commitments to sell aluminum in future periods at fixed prices. We identify and designate certain LME aluminum forward contracts as fair value hedges of the metal price risk associated with fixed price sales commitments that qualify as firm commitments. We did not have any outstanding aluminum forward purchase contracts designated as fair value hedges as of September 30, 2016. We had less than 1 kt of outstanding aluminum forward purchase contracts designated as fair value hedges as of March 31, 2016. One kilotonne (kt) is 1,000 metric tonnes.

| | Amount of Gain (Loss) Recognized on Changes in Fair Value | | Amount of Gain (Loss) Recognized on Changes in Fair Value | |
|---|---|---|---|---|
| | Three Months Ended September 30, | | Six Months Ended September 30, | |
| | 2016 | 2015 | 2016 | 2015 |
| **Fair Value Hedges of Metal Price Risk** | | | | |
| Derivative Contracts | $ — | $ (1) | $ — | $ (1) |
| Designated Hedged Items | — | 1 | — | 1 |
| Net Ineffectiveness (A) | $ — | $ — | $ — | $ — |

(A) Effective portion is recorded in "Net sales" and net ineffectiveness in "Other expense (income), net". There was no amount excluded from the assessment of hedge effectiveness related to Fair Value Hedges.

Price risk arises due to fluctuating aluminum prices between the time the sales order is committed and the time the order is shipped. We identify and designate certain LME aluminum forward purchase contracts as cash flow hedges of the metal price risk associated with our future metal purchases that vary based on changes in the price of aluminum. Such exposures do not extend beyond two years in length. We had less than 1 kt and 1 kt of outstanding aluminum forward purchase contracts designated as cash flow hedges as of September 30, 2016 and March 31, 2016, respectively.

Price risk exposure arises due to the timing lag between the LME based pricing of raw material aluminum purchases and the LME based pricing of finished product sales. We identify and designate certain LME aluminum forward sales contracts as cash flow hedges of the metal price risk associated with our future metal sales that vary based on changes in the price of aluminum. Generally, such exposures do not extend beyond two years in length. We had 404 kt and 301 kt of outstanding aluminum forward sales contracts designated as cash flow hedges as of September 30, 2016 and March 31, 2016, respectively.

The remaining aluminum derivative contracts are not designated as accounting hedges. As of September 30, 2016 and March 31, 2016, we had 65 kt and 76 kt, respectively, of outstanding aluminum sales contracts not designated as hedges. Generally, the average duration of undesignated contracts is less than six months.

The following table summarizes our notional amount (in kt).

| | September 30, 2016 | March 31, 2016 |
|---|---|---|
| **Hedge Type** | | |
| *Purchase (Sale)* | | |
| Cash flow purchases | — | 1 |
| Cash flow sales | (404) | (301) |
| Not designated | (65) | (76) |
| Total, net | (469) | (376) |

**Foreign Currency**

We use foreign exchange forward contracts, cross-currency swaps and options to manage our exposure to changes in exchange rates. These exposures arise from recorded assets and liabilities, firm commitments and forecasted cash flows denominated in currencies other than the functional currency of certain operations.

We use foreign currency contracts to hedge expected future foreign currency transactions, which include capital expenditures. These contracts cover the same periods as known or expected exposures. We had total notional amounts of $440 million and $601 million in outstanding foreign currency forwards designated as cash flow hedges as of September 30, 2016 and March 31, 2016, respectively.

We use foreign currency contracts to hedge our foreign currency exposure to our net investment in foreign subsidiaries. We did not have any outstanding foreign currency forwards designated as net investment hedges as of September 30, 2016. We had $36 million of outstanding foreign currency forwards designated as net investment hedges as of March 31, 2016.

As of September 30, 2016 and March 31, 2016, we had outstanding foreign currency exchange contracts with a total notional amount of $720 million and $636 million, respectively, to primarily hedge balance sheet remeasurement risk, which were not designated as hedges. Contracts representing the majority of this notional amount will mature during the third quarter of fiscal year 2017 and offset the remeasurement impact.

**Energy**

We own an interest in an electricity swap that matures January 5, 2017 which we formerly designated as a cash flow hedge of our exposure to fluctuating electricity prices. As of March 31, 2011, due to significant credit deterioration of our counterparty, we discontinued hedge accounting for this electricity swap. Less than 1 million of notional megawatt hours remained outstanding as of September 30, 2016, and the fair value of this swap was a liability of $3 million as of September 30, 2016. As of March 31, 2016, the fair value of this electricity swap was a liability of $9 million.

On December 31, 2015, we entered into an agreement to extend the electricity swap contract for an additional five years, effective January 6, 2017 and maturing on January 5, 2022. As of September 30, 2016 and March 31, 2016, 1 million of notional megawatt hours was outstanding and the fair value of this swap was a liability of $6 million and an asset of $1 million, respectively. The electricity swap was designated as a cash flow hedge in the first quarter of fiscal year 2017.

We use natural gas forward purchase contracts to manage our exposure to fluctuating energy prices in North America. We had 4 million MMBTUs designated as cash flow hedges as of September 30, 2016, and the fair value was a liability of $1 million. There were 5 million MMBTUs of natural gas forward purchase contracts designated as cash flow hedges as of March 31, 2016 and the fair value was a liability of $4 million. As of September 30, 2016 and March 31, 2016, we had less than 1 million of MMBTUs of natural gas forward purchase contracts that were not designated as hedges. The fair value as of September 30, 2016 and March 31, 2016 was a liability of less than $1 million and a liability of $1 million, respectively, for the forward purchase contracts not designated as hedges. The average duration of undesignated contracts is less than two years in length. One MMBTU is the equivalent of one decatherm, or one million British Thermal Units.

We use diesel fuel forward contracts to manage our exposure to fluctuating fuel prices in North America, which are not designated as hedges as of September 30, 2016. As of September 30, 2016 and March 31, 2016, we had 7 million gallons and 4 million gallons, respectively, of diesel fuel forward purchase contracts outstanding, and the fair value was an asset of $1 million and a liability of less than $1 million, respectively. The average duration of undesignated contracts is approximately one year in length.

**Interest Rate**

As of September 30, 2016, we swapped $121 million (KRW 133 billion) floating rate loans to a weighted average fixed rate of 2.92%. All swaps expire concurrent with the maturity of the related loans. As of September 30, 2016 and March 31, 2016, $121 million (KRW 133 billion) and $115 million (KRW 133 billion), respectively, were designated as cash flow hedges.

**Gain (Loss) Recognition**

The following table summarizes the gains (losses) associated with the change in fair value of derivative instruments not designated as hedges and the ineffectiveness of designated derivatives recognized in “Other expense (income), net” (in millions). Gains (losses) recognized in other line items in the condensed consolidated statement of operations are separately disclosed within this footnote.

| | Three Months Ended September 30, | | Six Months Ended September 30, | |
|---|---|---|---|---|
| | 2016 | 2015 | 2016 | 2015 |
| **Derivative Instruments Not Designated as Hedges** | | | | |
| Aluminum contracts | $ (5) | $ 9 | $ (17) | $ 40 |
| Currency exchange contracts | 5 | (55) | 13 | (54) |
| Energy contracts (A) | 2 | 2 | 5 | 2 |
| Gain (loss) recognized in "Other expense (income), net" | 2 | (44) | 1 | (12) |
| **Derivative Instruments Designated as Hedges** | | | | |
| (Loss) gain recognized in "Other expense (income), net" (B) | (5) | 22 | (13) | 16 |
| **Total (loss) gain recognized in "Other expense (income), net"** | $ (3) | $ (22) | $ (12) | $ 4 |
| Balance sheet remeasurement currency exchange contract gains (losses) | $ 6 | $ (49) | $ 14 | $ (50) |
| Realized (losses) gains, net | (13) | 42 | (23) | 34 |
| Unrealized gains (losses) on other derivative instruments, net | 4 | (15) | (3) | 20 |
| **Total (loss) gain recognized in "Other expense (income), net"** | $ (3) | $ (22) | $ (12) | $ 4 |

(A) Includes amounts related to de-designated electricity swap, and diesel fuel forward contracts and natural gas swaps not designated as hedges.
(B) Amount includes: forward market premium/discount excluded from hedging relationship and ineffectiveness on designated aluminum and foreign currency capital expenditure contracts; releases to income from AOCI on balance sheet remeasurement contracts; and ineffectiveness of fair value hedges involving aluminum derivatives.

The following table summarizes the impact on AOCI and earnings of derivative instruments designated as cash flow and net investment hedges (in millions). Within the next twelve months, we expect to reclassify $12 million of gains from AOCI to earnings, before taxes.

| | Amount of Gain (Loss) Recognized in OCI (Effective Portion) | | Amount of Gain (Loss) Recognized in OCI (Effective Portion) | | Amount of Gain (Loss) Recognized in “Other Expense (Income), net” (Ineffective and Excluded Portion) | | Amount of Gain (Loss) Recognized in “Other Expense (Income), net” (Ineffective and Excluded Portion) | |
|---|---|---|---|---|---|---|---|---|
| | Three Months Ended September 30, | | Six Months Ended September 30, | | Three Months Ended September 30, | | Six Months Ended September 30, | |
| | 2016 | 2015 | 2016 | 2015 | 2016 | 2015 | 2016 | 2015 |
| **Cash flow hedging derivatives** | | | | | | | | |
| Aluminum contracts | $ 1 | $ 21 | $ (30) | $ 59 | $ (4) | $ 22 | $ (13) | $ 16 |
| Currency exchange contracts | 14 | (51) | 32 | (43) | 1 | — | 1 | — |
| Energy contracts | (3) | (2) | (4) | (2) | (1) | — | (1) | — |
| Interest Rate Swaps | — | 1 | — | — | — | — | — | — |
| **Total cash flow hedging derivatives** | $ 12 | $ (31) | $ (2) | $ 14 | $ (4) | $ 22 | $ (13) | $ 16 |
| **Net investment derivatives** | | | | | | | | |
| Currency exchange contracts | (1) | — | — | (1) | — | — | — | — |
| **Total** | $ 11 | $ (31) | $ (2) | $ 13 | $ (4) | $ 22 | $ (13) | $ 16 |

**Gain (Loss) Reclassification**

| | Amount of Gain (Loss) Reclassified from AOCI into Income/(Expense) (Effective Portion) Three Months Ended September 30, | | Amount of Gain (Loss) Reclassified from AOCI into Income/(Expense) (Effective Portion) Six Months Ended September 30, | | Location of Gain (Loss) Reclassified from AOCI into Earnings |
|---|---|---|---|---|---|
| **Cash flow hedging derivatives** | **2016** | **2015** | **2016** | **2015** | |
| Energy contracts (A) | $ (2) | $ (2) | $ (3) | $ (3) | Other expense (income), net |
| Energy contracts (C) | (1) | (2) | (3) | (4) | Cost of goods sold (B) |
| Aluminum contracts | (7) | 38 | (6) | 51 | Cost of goods sold (B) |
| Aluminum contracts | (1) | — | (2) | — | Net sales |
| Currency exchange contracts | 5 | (10) | 5 | (16) | Cost of goods sold (B) |
| Currency exchange contracts | 1 | (1) | 1 | (1) | Selling, general and administrative expenses |
| Currency exchange contracts | 3 | (3) | 3 | — | Net sales |
| Currency exchange contracts | — | (1) | 1 | (1) | Other expense (income), net |
| Currency exchange contracts | (1) | (1) | (1) | (1) | Depreciation and amortization |
| **Total** | $ (3) | $ 18 | $ (5) | $ 25 | (Loss) income before taxes |
| | 2 | (10) | 1 | (14) | Income tax provision |
| | $ (1) | $ 8 | $ (4) | $ 11 | Net (loss) income |

(A) Includes amounts related to de-designated electricity swap. AOCI related to this swap is amortized to income over the remaining term of the hedged item.
(B) "Cost of goods sold" is exclusive of depreciation and amortization.
(C) Includes amounts related to natural gas swaps.

## 12. ACCUMULATED OTHER COMPREHENSIVE LOSS

The following tables summarize the change in the components of accumulated other comprehensive loss net of tax and excluding "Noncontrolling interests", for the periods presented (in millions).

| | (A) Currency Translation | (B) Cash Flow Hedges | (C) Postretirement Benefit Plans | Total |
|---|---|---|---|---|
| **Balance as of June 30, 2016** | $ (248) | $ (18) | $ (279) | $ (545) |
| Other comprehensive income before reclassifications | 47 | 9 | 11 | 67 |
| Amounts reclassified from AOCI | 16 | 1 | (6) | 11 |
| Net current-period other comprehensive income | 63 | 10 | 5 | 78 |
| **Balance as of September 30, 2016** | $ (185) | $ (8) | $ (274) | $ (467) |

| | Currency Translation | (B) Cash Flow Hedges | (C) Postretirement Benefit Plans | Total |
|---|---|---|---|---|
| **Balance as of June 30, 2015** | $ (169) | $ (33) | $ (292) | $ (494) |
| Other comprehensive (loss) income before reclassifications | (60) | (34) | 5 | (89) |
| Amounts reclassified from AOCI | — | (8) | 2 | (6) |
| Net current-period other comprehensive (loss) income | (60) | (42) | 7 | (95) |
| **Balance as of September 30, 2015** | $ (229) | $ (75) | $ (285) | $ (589) |

| | (A) Currency Translation | (B) Cash Flow Hedges | (C) Postretirement Benefit Plans | Total |
|---|---|---|---|---|
| **Balance as of March 31, 2016** | $ (196) | $ (11) | $ (293) | $ (500) |
| Other comprehensive (loss) income before reclassifications | (5) | (1) | 17 | 11 |
| Amounts reclassified from AOCI, net | 16 | 4 | 2 | 22 |
| Net current-period other comprehensive income | 11 | 3 | 19 | 33 |
| **Balance as of September 30, 2016** | $ (185) | $ (8) | $ (274) | $ (467) |

| | Currency Translation | (B) Cash Flow Hedges | (C) Postretirement Benefit Plans | Total |
|---|---|---|---|---|
| **Balance as of March 31, 2015** | $ (213) | $ (63) | $ (285) | $ (561) |
| Other comprehensive (loss) income before reclassifications | (16) | (1) | (3) | (20) |
| Amounts reclassified from AOCI, net | — | (11) | 3 | (8) |
| Net current-period other comprehensive loss | (16) | (12) | — | (28) |
| **Balance as of September 30, 2015** | $ (229) | $ (75) | $ (285) | $ (589) |

(A) The $16 million in currency translation reclassified from AOCI relates to CTA that was written off as part of our sale of the Aluminium Company of Malaysia Berhad (ALCOM) business. Refer to Note 14 - Other Expense (Income), Net for additional information.
(B) For additional information on our cash flow hedges see Note 11 - Financial Instruments and Commodity Contracts.
(C) For additional information on our postretirement benefit plans see Note 9 - Postretirement Benefit Plans.

## 13. FAIR VALUE MEASUREMENTS

We record certain assets and liabilities, primarily derivative instruments, on our condensed consolidated balance sheets at fair value. We also disclose the fair value of certain financial instruments, including debt and loans receivable, which are not recorded at fair value. Our objective in measuring fair value is to estimate an exit price in an orderly transaction between market participants on the measurement date. We consider factors such as liquidity, bid/offer spreads and nonperformance risk, including our own nonperformance risk, in measuring fair value. We use observable market inputs wherever possible. To the extent observable market inputs are not available, our fair value measurements will reflect the assumptions we used. We grade the level of the inputs and assumptions used according to a three-tier hierarchy:

Level 1 — Unadjusted quoted prices in active markets for identical, unrestricted assets or liabilities we have the ability to access at the measurement date.

Level 2 — Inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly or indirectly.

Level 3 — Unobservable inputs for which there is little or no market data, which require us to develop our own assumptions based on the best information available as what market participants would use in pricing the asset or liability.

The following section describes the valuation methodologies we used to measure our various financial instruments at fair value, including an indication of the level in the fair value hierarchy in which each instrument is generally classified.

***Derivative Contracts***

For certain derivative contracts with fair values based upon trades in liquid markets, such as aluminum, foreign exchange, natural gas and diesel fuel forward contracts and options, valuation model inputs can generally be verified and valuation techniques do not involve significant judgment. The fair values of such financial instruments are generally classified within Level 2 of the fair value hierarchy.

The majority of our derivative contracts are valued using industry-standard models with observable market inputs as their basis, such as time value, forward interest rates, volatility factors, and current (spot) and forward market prices. We generally classify these instruments within Level 2 of the valuation hierarchy. Such derivatives include interest rate swaps, cross-currency swaps, foreign currency contracts, aluminum derivative contracts, natural gas and diesel fuel forward contracts.

We classify derivative contracts that are valued based on models with significant unobservable market inputs as Level 3 of the valuation hierarchy. Our electricity swaps, which are our only Level 3 derivative contracts, represent agreements to buy electricity at a fixed price at our Oswego, New York facility. Forward prices are not observable for this market, so we must make certain assumptions based on available information we believe to be relevant to market participants. We use observable forward prices for a geographically nearby market and adjust for 1) historical spreads between the cash prices of the two markets, and 2) historical spreads between retail and wholesale prices.

For the electricity swap maturing January 5, 2017, the average forward price at September 30, 2016, estimated using the method described above, was $37 per megawatt hour, which represented a $1 discount below forward prices in the nearby observable market. The actual rate from the most recent swap settlement was approximately $36 per megawatt hour. Each $1 per megawatt hour decline in price decreases the valuation of the electricity swap by less than $1 million.

For the electricity swap maturing January 5, 2022, the average forward price at September 30, 2016, estimated using the method described above, was $42 per megawatt hour, which represented less than $1 premium over forward prices in the nearby observable market. The actual rate from the most recent swap settlement was approximately $36 per megawatt hour. Each $1 per megawatt hour decline in price decreases the valuation of the electricity swap by $1 million.

For Level 2 and 3 of the fair value hierarchy, where appropriate, valuations are adjusted for various factors such as liquidity, bid/offer spreads and credit considerations (nonperformance risk). We regularly monitor these factors along with significant market inputs and assumptions used in our fair value measurements and evaluate the level of the valuation input according to the fair value hierarchy. This may result in a transfer between levels in the hierarchy from period to period. As of September 30, 2016 and March 31, 2016, we did not have any Level 1 derivative contracts. No amounts were transferred between levels in the fair value hierarchy.

All of the Company's derivative instruments are carried at fair value in the statements of financial position prior to considering master netting agreements.

The following table presents our derivative assets and liabilities which were measured and recognized at fair value on a recurring basis and classified under the appropriate level of the fair value hierarchy as of September 30, 2016 and March 31, 2016 (in millions). The table below also discloses the net fair value of the derivative instruments after considering the impact of master netting agreements.

| | September 30, 2016 | | March 31, 2016 | |
|---|---|---|---|---|
| | Assets | Liabilities | Assets | Liabilities |
| **Level 2 instruments** | | | | |
| Aluminum contracts | $ 33 | $ (56) | $ 34 | $ (28) |
| Currency exchange contracts | 61 | (29) | 59 | (49) |
| Energy contracts | 1 | (1) | — | (5) |
| Interest rate swaps | — | (1) | — | (1) |
| **Total level 2 instruments** | 95 | (87) | 93 | (83) |
| **Level 3 instruments** | | | | |
| Energy contracts | — | (9) | 1 | (9) |
| **Total level 3 instruments** | — | (9) | 1 | (9) |
| **Total gross** | $ 95 | $ (96) | $ 94 | $ (92) |
| **Netting adjustment (A)** | (30) | 30 | (31) | 31 |
| **Total net** | $ 65 | $ (66) | $ 63 | $ (61) |

(A) Amounts represent the impact of legally enforceable master netting agreements that allow the Company to settle positive and negative positions with the same counterparties.

We recognized unrealized gains of $3 million for the six months ended September 30, 2016 related to Level 3 financial instruments that were still held as of September 30, 2016. These unrealized gains were included in “Other expense (income), net.”

The following table presents a reconciliation of fair value activity for Level 3 derivative contracts (in millions).

| | Level 3 – Derivative Instruments (A) |
|---|---|
| **Balance as of March 31, 2016** | $ (8) |
| Unrealized/realized gain included in earnings (B) | 7 |
| Unrealized/realized (loss) included in AOCI (C) | (6) |
| Settlements | (2) |
| **Balance as of September 30, 2016** | $ (9) |

(A) Represents net derivative liabilities.
(B) Included in “Other expense (income), net”
(C) Included in "Change in fair value of effective portion of cash flow hedges, net"

***Financial Instruments Not Recorded at Fair Value***

The table below presents the estimated fair value of certain financial instruments not recorded at fair value on a recurring basis (in millions). The table excludes short-term financial assets and liabilities for which we believe carrying value approximates fair value. We value long-term receivables and long-term debt using Level 2 inputs. Valuations are based on either market and/or broker ask prices when available or on a standard credit adjusted discounted cash flow model using market observable inputs.

| | September 30, 2016 | | March 31, 2016 | |
|---|---|---|---|---|
| | Carrying Value | Fair Value | Carrying Value | Fair Value |
| **Assets** | | | | |
| Long-term receivables from related parties | $ 6 | $ 7 | $ 16 | $ 17 |
| **Liabilities** | | | | |
| Total debt — third parties (excluding short-term borrowings) | $ 4,595 | $ 4,794 | $ 4,468 | $ 4,659 |

## 14. OTHER EXPENSE (INCOME), NET

"Other expense (income), net" is comprised of the following (in millions).

| | Three Months Ended September 30, | | Six Months Ended September 30, | |
|---|---|---|---|---|
| | 2016 | 2015 | 2016 | 2015 |
| Foreign currency remeasurement (gains) losses, net (A) | $ (2) | $ 3 | $ 1 | $ (1) |
| (Gain) loss on change in fair value of other unrealized derivative instruments, net (B) | (4) | 15 | 3 | (20) |
| Loss (gain) on change in fair value of other realized derivative instruments, net (B) | 13 | (42) | 23 | (34) |
| Loss on sale of assets, net | 2 | — | 6 | 1 |
| Loss on sale of business (C) | 27 | — | 27 | — |
| Loss on Brazilian tax litigation, net (D) | 2 | 2 | 3 | 3 |
| Interest income | (2) | (2) | (5) | (4) |
| Gain on business interruption insurance recovery (E) | — | (5) | — | (10) |
| Other, net | 2 | (3) | 8 | 3 |
| **Other expense (income), net** | $ 38 | $ (32) | $ 66 | $ (62) |

(A) Includes "(Gain) loss recognized on balance sheet remeasurement currency exchange contracts, net."
(B) See Note 11 - Financial Instruments and Commodity Contracts for further details.y
(C) On September 30, 2016, we sold our 59.15% equity interest in Aluminium Company of Malaysia Berhad (ALCOM), a previously consolidated subsidiary, to Towerpack Sdn. Bhd. for $12 million (MYR 48 million), which was recorded in "Accounts receivable, net" as of September 30, 2016, and received in October 2016. The transaction includes our interest in the Bukit Raja, Malaysia facility, which processed aluminum within the construction/industrial and heavy and light gauge foil markets, and the wholly-owned entity Alcom Nikkei Specialty Coatings Sdn. Berhad. This sale is part of our continued strategy to exit certain non-core operations and align our growth strategy in the premium product markets. The sale resulted in a loss of $27 million during the three months ended September 30, 2016. As a result of this sale, we no longer own any interest in ALCOM.
(D) See Note 16 - Commitments and Contingencies - Brazil Tax and Legal Matters for further details.
(E) We experienced an outage at the hotmill in the Logan facility in North America due to an unexpected motor failure in fiscal 2015 and recognized a gain of $10 million during the first half of fiscal 2016.

## 15. INCOME TAXES

A reconciliation of the Canadian statutory tax rate to our effective tax rate was as follows (in millions, except percentages).

| | Three Months Ended September 30, | | Six Months Ended September 30, | |
|---|---|---|---|---|
| | 2016 | 2015 | 2016 | 2015 |
| Pre-tax loss before equity in net loss of non-consolidated affiliates and noncontrolling interests | $ (62) | $ (15) | $ (2) | $ (59) |
| Canadian statutory tax rate | 25 % | 25% | 25 % | 25 % |
| Benefit at the Canadian statutory rate | $ (15) | $ (4) | $ — | $ (15) |
| Increase (decrease) for taxes on income (loss) resulting from: | | | | |
| Exchange translation items | (2) | 2 | 4 | 10 |
| Exchange remeasurement of deferred income taxes | (1) | (16) | 6 | (14) |
| Change in valuation allowances | 32 | 24 | 43 | 45 |
| Expense items not subject to tax | 2 | 3 | 2 | 3 |
| Tax gain - net | 9 | — | 9 | — |
| Dividends not subject to tax | (13) | (12) | (23) | (17) |
| Legislative changes including enacted tax rates | 3 | — | 3 | — |
| Tax rate differences on foreign earnings | 7 | 2 | 15 | 3 |
| Other — net | 5 | (2) | 4 | (3) |
| Income tax provision (benefit) | $ 27 | $ (3) | $ 63 | $ 12 |
| Effective tax rate | (44)% | 19% | (3,150)% | (20)% |

Exchange translation items relate primarily to instances where functional currency is different than local and tax reporting currency. The exchange remeasurement of deferred income taxes relates to deferred tax assets and liabilities in Brazil which get remeasured for currency fluctuations against the U.S. dollar. The change in valuation allowances primarily relates to tax losses in certain jurisdictions where we believe it is more likely than not that we will not be able to utilize those losses.

As of September 30, 2016, we had a net deferred tax liability of $13 million. This amount included gross deferred tax assets of approximately $1.2 billion and a valuation allowance of $667 million. It is reasonably possible that our estimates of future taxable income may change within the next 12 months, resulting in a change to the valuation allowance in one or more jurisdictions.

Tax authorities continue to examine certain of our tax filings for fiscal years 2008 through 2014. As a result of audit settlements, judicial decisions, the filing of amended tax returns or the expiration of statutes of limitations, our reserves for unrecognized tax benefits, as well as reserves for interest and penalties, may decrease in the next 12 months by an amount up to approximately $16 million.

## 16. COMMITMENTS AND CONTINGENCIES

We are party to, and may in the future be involved in, or subject to, disputes, claims and proceedings arising in the ordinary course of our business, including some we assert against others, such as environmental, health and safety, product liability, employee, tax, personal injury and other matters. We have established a liability with respect to contingencies for which a loss is probable and estimable. While the ultimate resolution of and liability and costs related to these matters cannot be determined with certainty, we do not believe any of these pending actions, individually or in the aggregate, will materially impair our operations or materially affect our financial condition or liquidity.

For certain matters in which the Company is involved for which a loss is reasonably possible, we are unable to estimate a loss. For certain other matters for which a loss is reasonably possible and the loss is estimable, we have estimated the aggregated range of loss as \$0 to \$70 million. This estimated aggregate range of reasonably possible losses is based upon currently available information. The Company's estimates involve significant judgment, and therefore, the estimate will change from time to time and actual losses may differ from the current estimate. We review the status of, and estimated liability related to, pending claims and civil actions on a quarterly basis. The evaluation model includes all asserted and unasserted claims that can be reasonably identified, including claims relating to our responsibility for compliance with environmental, health and safety laws and regulations in the jurisdictions in which we operate or formerly operated. The estimated costs in respect of such reported liabilities are not offset by amounts related to insurance or indemnification arrangements unless otherwise noted.

The following describes certain contingencies relating to our business, including those for which we assumed liability as a result of our spin-off from Alcan Inc.

***Environmental Matters***

We own and operate numerous manufacturing and other facilities in various countries around the world. Our operations are subject to environmental laws and regulations from various jurisdictions, which govern, among other things, air emissions, wastewater discharges, the handling, storage and disposal of hazardous substances and wastes, the remediation of contaminated sites, post-mining reclamation and restoration of natural resources, and employee health and safety. Future environmental regulations may impose stricter compliance requirements on the industries in which we operate. Additional equipment or process changes at some of our facilities may be needed to meet future requirements. The cost of meeting these requirements may be significant. Failure to comply with such laws and regulations could subject us to administrative, civil or criminal penalties, obligations to pay damages or other costs, and injunctions and other orders, including orders to cease operations.

We are involved in proceedings under the U.S. Comprehensive Environmental Response, Compensation, and Liability Act, also known as CERCLA or Superfund, or analogous state provisions regarding liability arising from the usage, storage, treatment or disposal of hazardous substances and wastes at a number of sites in the United States, as well as similar proceedings under the laws and regulations of the other jurisdictions in which we have operations, including Brazil and certain countries in the European Union. Many of these jurisdictions have laws that impose joint and several liability, without regard to fault or the legality of the original conduct, for the costs of environmental remediation, natural resource damages, third party claims, and other expenses. In addition, we are, from time to time, subject to environmental reviews and investigations by relevant governmental authorities. We are also involved in claims and litigation filed on behalf of persons alleging exposure to substances and other hazards at our current and former facilities.

We have established liabilities based on our estimates for the currently anticipated costs associated with these environmental matters. We estimated that the remaining undiscounted clean-up costs related to our environmental liabilities as of September 30, 2016 were approximately \$16 million, of which \$10 million was included in "Other long-term liabilities" and the remaining \$6 million in "Accrued expenses and other current liabilities". Of the total \$16 million, \$13 million was associated with restructuring actions and the remaining undiscounted clean-up costs were approximately \$3 million. As of March 31, 2016, \$7 million of the environmental liability was included in "Other long-term liabilities," with the remaining \$10 million included in "Accrued expenses and other current liabilities" in our condensed consolidated balance sheet. Management has reviewed the environmental matters, including those for which we assumed liability as a result of our spin-off from Alcan Inc. As a result of management's review of these items, management has determined that the currently anticipated costs associated with these environmental matters will not, individually or in the aggregate, materially impact our operations or materially adversely affect our financial condition, results of operations or liquidity.

***Brazil Tax and Legal Matters***

Under a federal tax dispute settlement program established by the Brazilian government, we have settled several disputes with Brazil's tax authorities regarding various forms of manufacturing taxes and social security contributions. In most cases, we are paying the settlement amounts over a period of 180 months, although in some cases we are paying the settlement amounts over a shorter period. The assets and liabilities related to these settlements are presented in the table below (in millions).

| | September 30, 2016 | March 31, 2016 |
|---|---|---|
| Cash deposits (A) | $ 3 | $ 2 |
| | | |
| Short-term settlement liability (B) | $ 8 | $ 7 |
| Long-term settlement liability (B) | 61 | 57 |
| Total settlement liability | $ 69 | $ 64 |
| | | |
| Liability for other disputes and claims (C) | $ 24 | $ 17 |

(A) We have maintained these cash deposits as a result of legal proceedings with Brazil's tax authorities. These deposits, which are included in "Other long-term assets — third parties" in our accompanying condensed consolidated balance sheets, will be expended toward these legal proceedings.
(B) The short-term and long-term settlement liabilities are included in "Accrued expenses and other current liabilities" and "Other long-term liabilities", respectively, in our accompanying condensed consolidated balance sheets.
(C) In addition to the disputes we have settled under the federal tax dispute settlement program, we are involved in several other unresolved tax and other legal claims in Brazil. The related liabilities are included in "Other long-term liabilities" in our accompanying condensed consolidated balance sheets.

The interest cost recorded on these settlement liabilities, partially offset by interest earned on the cash deposits is included in the table below (in millions).

| | Three Months Ended September 30, | | Six Months Ended September 30, | |
|---|---|---|---|---|
| | 2016 | 2015 | 2016 | 2015 |
| Loss on Brazilian tax litigation, net | $ 2 | $ 2 | $ 3 | $ 3 |

Additionally, we have included in the range of reasonably possible losses disclosed above, any unresolved tax disputes or other contingencies for which a loss is reasonably possible and estimable.

***Other Commitments***

As of September 30, 2016 and March 31, 2016, we sold certain inventories to third parties and have agreed to repurchase the same or similar inventory back from the third parties at market prices subsequent to the balance sheet dates. Our estimated outstanding repurchase obligations for this inventory as of September 30, 2016 were $23 million and as of March 31, 2016 were approximately $22 million, based on market prices as of these dates. We sell and repurchase inventory with third parties in an attempt to better manage inventory levels and to better match the purchasing of inventory with the demand for our products. As of September 30, 2016 and March 31, 2016, there was no liability related to these repurchase obligations on our accompanying condensed consolidated balance sheets.

## 17. SEGMENT, MAJOR CUSTOMER AND MAJOR SUPPLIER INFORMATION

### *Segment Information*

Due in part to the regional nature of supply and demand of aluminum rolled products and to best serve our customers, we manage our activities based on geographical areas and are organized under four operating segments: North America, Europe, Asia and South America. All of our segments manufacture aluminum sheet and light gauge products.

The following is a description of our operating segments:

*North America.* Headquartered in Atlanta, Georgia, this segment operates eight plants, including two fully dedicated recycling facilities and one facility with recycling operations, in two countries. This segment also operates four automotive heat treatment lines.

*Europe.* Headquartered in Kusnacht, Switzerland, this segment operates ten plants, including two fully dedicated recycling facilities and two facilities with recycling operations, in four countries. This segment also operates three automotive heat treatment lines.

*Asia.* Headquartered in Seoul, South Korea, this segment operates four plants, including three facilities with recycling operations, in three countries. This segment also operates one automotive heat treatment line.

*South America.* Headquartered in Sao Paulo, Brazil, this segment operates two plants, including a facility with recycling operations and a facility with power generation operations, in Brazil.

Net sales and expenses are measured in accordance with the policies and procedures described in Note 1 — Business and Summary of Significant Accounting Policies see in our Annual Report on Form 10-K for the year ended March 31, 2016.

We measure the profitability and financial performance of our operating segments based on “Segment income.” “Segment income” provides a measure of our underlying segment results that is in line with our approach to risk management. We define “Segment income” as earnings before (a) “depreciation and amortization”; (b) “interest expense and amortization of debt issuance costs”; (c) “interest income”; (d) unrealized gains (losses) on change in fair value of derivative instruments, net, except for foreign currency remeasurement hedging activities, which are included in segment income; (e) impairment of goodwill; (f) gain or loss on extinguishment of debt; (g) noncontrolling interests' share; (h) adjustments to reconcile our proportional share of “Segment income” from non-consolidated affiliates to income as determined on the equity method of accounting; (i) “restructuring and impairment, net”; (j) gains or losses on disposals of property, plant and equipment and businesses, net; (k) other costs, net; (l) litigation settlement, net of insurance recoveries; (m) sale transaction fees; (n) provision or benefit for taxes on income (loss) and (o) cumulative effect of accounting change, net of tax.

The tables below show selected segment financial information (in millions). The “Eliminations and Other” column in the table below includes eliminations and functions that are managed directly from our corporate office that have not been allocated to our operating segments, as well as the adjustments for proportional consolidation, and eliminations of intersegment “Net sales.” The financial information for our segments includes the results of our affiliates on a proportionately consolidated basis, which is consistent with the way we manage our business segments. In order to reconcile the financial information for the segments shown in the tables below to the relevant U.S. GAAP-based measures, we must adjust proportional consolidation of each line item. The “Eliminations and Other” in “Net sales – third party” includes the net sales attributable to our joint venture party, Tri-Arrows, for our Logan affiliate because we consolidate 100% of the Logan joint venture for U.S. GAAP, but we manage our Logan affiliate on a proportionately consolidated basis. See Note 5 - Consolidation and Note 6 - Investment in and Advances to Non-Consolidated Affiliates and Related Party Transactions for further information about these affiliates. Additionally, we eliminate intersegment sales and intersegment income for reporting on a consolidated basis.

**Selected Segment Financial Information**

| September 30, 2016 | North America | Europe | Asia | South America | Eliminations and Other | Total |
|---|---|---|---|---|---|---|
| Investment in and advances to non–consolidated affiliate | $ — | $ 482 | $ — | $ — | $ — | $ 482 |
| Total assets | $ 2,349 | $ 2,798 | $ 1,584 | $ 1,480 | $ 109 | $ 8,320 |

| March 31, 2016 | North America | Europe | Asia | South America | Eliminations and Other | Total |
|---|---|---|---|---|---|---|
| Investment in and advances to non–consolidated affiliate | $ — | $ 488 | $ — | $ — | $ — | $ 488 |
| Total assets | $ 2,370 | $ 2,687 | $ 1,516 | $ 1,584 | $ 123 | $ 8,280 |

| Selected Operating Results Three Months Ended September 30, 2016 | North America | Europe | Asia | South America | Eliminations and Other | Total |
|---|---|---|---|---|---|---|
| Net sales-third party | $ 774 | $ 719 | $ 456 | $ 354 | $ 58 | $ 2,361 |
| Net sales-intersegment | 1 | 10 | 2 | 18 | (31) | — |
| Net sales | $ 775 | $ 729 | $ 458 | $ 372 | $ 27 | $ 2,361 |
| | | | | | | |
| Depreciation and amortization | $ 37 | $ 27 | $ 15 | $ 15 | $ (4) | $ 90 |
| Income tax (benefit) provision | $ (2) | $ — | $ 5 | $ 18 | $ 6 | $ 27 |
| Capital expenditures | $ 15 | $ 13 | $ 9 | $ 9 | $ — | $ 46 |

| Selected Operating Results Three Months Ended September 30, 2015 | North America | Europe | Asia | South America | Eliminations and Other | Total |
|---|---|---|---|---|---|---|
| Net sales-third party | $ 834 | $ 798 | $ 443 | $ 363 | $ 44 | $ 2,482 |
| Net sales-intersegment | 1 | 41 | 36 | 14 | (92) | — |
| Net sales | $ 835 | $ 839 | $ 479 | $ 377 | $ (48) | $ 2,482 |
| | | | | | | |
| Depreciation and amortization | $ 36 | $ 27 | $ 15 | $ 15 | $ (4) | $ 89 |
| Income tax (benefit) provision | $ (17) | $ (7) | $ 4 | $ 6 | $ 11 | $ (3) |
| Capital expenditures | $ 25 | $ 32 | $ 10 | $ 7 | $ 1 | $ 75 |

| Selected Operating Results Six Months Ended September 30, 2016 | North America | Europe | Asia | South America | Eliminations and Other | Total |
|---|---|---|---|---|---|---|
| Net sales-third party | $ 1,516 | $ 1,474 | $ 896 | $ 658 | $ 113 | $ 4,657 |
| Net sales-intersegment | 2 | 22 | 6 | 33 | (63) | — |
| Net sales | $ 1,518 | $ 1,496 | $ 902 | $ 691 | $ 50 | $ 4,657 |
| | | | | | | |
| Depreciation and amortization | $ 74 | $ 54 | $ 30 | $ 31 | $ (10) | $ 179 |
| Income tax (benefit) provision | $ (6) | $ 3 | $ 13 | $ 39 | $ 14 | $ 63 |
| Capital expenditures | $ 27 | $ 33 | $ 14 | $ 19 | $ (3) | $ 90 |

| Selected Operating Results Six Months Ended September 30, 2015 | North America | Europe | Asia | South America | Eliminations and Other | Total |
|---|---|---|---|---|---|---|
| Net sales-third party | $ 1,720 | $ 1,613 | $ 976 | $ 716 | $ 91 | $ 5,116 |
| Net sales-intersegment | 3 | 106 | 69 | 52 | (230) | — |
| Net sales | $ 1,723 | $ 1,719 | $ 1,045 | $ 768 | $ (139) | $ 5,116 |
| | | | | | | |
| Depreciation and amortization | $ 71 | $ 52 | $ 31 | $ 30 | $ (8) | $ 176 |
| Income tax (benefit) provision | $ (32) | $ (13) | $ 5 | $ 23 | $ 29 | $ 12 |
| Capital expenditures | $ 77 | $ 88 | $ 20 | $ 15 | $ 4 | $ 204 |

The following table shows the reconciliation from segment income for each of our regions to "Net loss attributable to our common shareholder" (in millions).

| | Three Months Ended September 30, | | Six Months Ended September 30, | |
|---|---|---|---|---|
| | 2016 | 2015 | 2016 | 2015 |
| North America | $ 90 | $ 53 | $ 176 | $ 95 |
| Europe | 42 | 41 | 94 | 32 |
| Asia | 42 | 34 | 87 | 70 |
| South America | 82 | 54 | 154 | 113 |
| Intersegment eliminations | — | — | — | (1) |
| Depreciation and amortization | (90) | (89) | (179) | (176) |
| Interest expense and amortization of debt issuance costs | (81) | (82) | (164) | (162) |
| Adjustment to eliminate proportional consolidation | (8) | (8) | (16) | (15) |
| Unrealized gains (losses) on change in fair value of derivative instruments, net | 4 | (15) | (3) | 20 |
| Realized (losses) gains on derivative instruments not included in segment income | — | (3) | 1 | (2) |
| Gain on assets held for sale | 1 | — | 2 | — |
| Loss on extinguishment of debt | (112) | — | (112) | (13) |
| Restructuring and impairment, net | (1) | (4) | (3) | (19) |
| Loss on sale of a business | (27) | — | (27) | — |
| Loss on sale of fixed assets | (2) | — | (6) | (1) |
| Other (costs) income, net | (2) | 3 | (6) | (2) |
| Loss before income taxes | (62) | (16) | (2) | (61) |
| Income tax provision (benefit) | 27 | (3) | 63 | 12 |
| Net loss | (89) | (13) | (65) | (73) |
| Net income attributable to noncontrolling interests | — | — | — | — |
| **Net loss attributable to our common shareholder** | $ (89) | $ (13) | $ (65) | $ (73) |

**Information about Major Customers and Primary Supplier**

The table below shows our net sales to Affiliates of Ball Corporation (Ball) and Ford, our two largest customers, as a percentage of total "Net sales."

| | Three Months Ended September 30, | | Six Months Ended September 30, | |
|---|---|---|---|---|
| | 2016 | 2015 | 2016 | 2015 |
| Rexam (A) | 17% | 20% | 17% | 19% |
| Ball (A) | 7% | 11% | 10% | 11% |
| Ford | 10% | 6% | 9% | 7% |

(A) In February of 2015, Ball Corporation made an offer to acquire Rexam. On June 30, 2016, Ball completed the acquisition of Rexam and the divestiture of certain assets to the Ardagh Group. Prior period amounts disclosed above for Ball do not include the effects of the divestiture of the assets to the Ardagh Group.

Rio Tinto (RT) is our primary supplier of metal inputs, including prime and sheet ingot. The table below shows our purchases from RT as a percentage of our total combined metal purchases.

| | Three Months Ended September 30, | | Six Months Ended September 30, | |
|---|---|---|---|---|
| | 2016 | 2015 | 2016 | 2015 |
| Purchases from RT as a percentage of total | 11% | 12% | 11% | 13% |

## 18. SUPPLEMENTAL INFORMATION

Supplemental cash flow information is as follows (in millions).

| | Six Months Ended September 30, | |
|---|---|---|
| | 2016 | 2015 |
| **Supplemental disclosures of cash flow information:** | | |
| Interest paid | $ 208 | $ 152 |
| Income taxes paid | $ 44 | $ 41 |

As of September 30, 2016, we recorded $43 million of outstanding accounts payable and accrued liabilities related to capital expenditures for which the cash outflows will occur subsequent to September 30, 2016. During the six months ended September 30, 2016, we incurred capital lease obligations of $1 million.

## Item 2. Management’s Discussion and Analysis of Financial Condition and Results of Operations

### FORWARD LOOKING STATEMENTS

*The following information should be read together with our unaudited condensed consolidated financial statements and accompanying notes included elsewhere in this Quarterly Report for a more complete understanding of our financial condition and results of operations. The following discussion contains forward-looking statements that reflect our plans, estimates and beliefs. Our actual results could differ materially from those discussed in these forward-looking statements. Factors that could cause or contribute to these differences include, but are not limited to, those discussed below, particularly in “SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS AND MARKET DATA.”*

### OVERVIEW AND REFERENCES

Novelis is the world's leading aluminum rolled products producer based on shipment volume in fiscal 2016. We produce aluminum sheet and light gauge products for use in the packaging market, which includes beverage and food can and foil products, as well as for use in the automotive, transportation, electronics, architectural and industrial product markets. We are also the world's largest recycler of aluminum and have recycling operations in many of our plants to recycle both post-consumer aluminum and post-industrial aluminum. As of September 30, 2016, we had manufacturing operations in ten countries on four continents, which include 24 operating plants, and recycling operations in eleven of these plants.

In this Quarterly Report on Form 10-Q, unless otherwise specified, the terms “we,” “our,” “us,” “Company,” and “Novelis” refer to Novelis Inc., a company incorporated in Canada under the Canadian Business Corporations Act (CBCA) and its subsidiaries. References herein to “Hindalco” refer to Hindalco Industries Limited, our indirect parent company, which acquired Novelis in May 2007, through its indirect wholly-owned subsidiary, AV Metals Inc., our direct parent company.

As used in this Quarterly Report, consolidated “aluminum rolled product shipments” or “flat rolled product shipments” refers to aluminum rolled products shipments to third parties. Regional “aluminum rolled product shipments” or “flat rolled product shipments” refers to aluminum rolled products shipments to third parties and intersegment shipments to other Novelis regions. Shipment amounts also include tolling shipments. References to “total shipments” include aluminum rolled products as well as certain other non-rolled product shipments, primarily scrap, used beverage cans (UBC), ingot, billets and primary remelt. The term “aluminum rolled products” is synonymous with the terms “flat rolled products” and “FRP” commonly used by manufacturers and third party analysts in our industry. All tonnages are stated in metric tonnes. One metric tonne (mt) is equivalent to 2,204.6 pounds. One kilotonne (kt) is 1,000 metric tonnes.

References to our Form 10-K made throughout this document refer to our Annual Report on Form 10-K for the year ended March 31, 2016, filed with the United States Securities and Exchange Commission (SEC) on May 10, 2016.

**HIGHLIGHTS**

We reported "Segment income" of $256 million for the second quarter of fiscal 2017, compared to $182 million for the second quarter of fiscal 2016. The increase is primarily due to the lessening of unfavorable metal price lag impacts caused by volatility in local market premiums in the prior year, as well as favorable impacts from strong operational performance globally, our focus on driving asset efficiency, record automotive shipments and prudent operating cost management. The Company delivered its strongest "Segment income" for the second quarter since fiscal 2013.

We reported "Net loss" of $89 million in the three months ended September 30, 2016, compared with "Net loss" of $13 million in the three months ended September 30, 2015. Capital expenditures declined as our larger strategic projects have all been completed. We spent $90 million on capital expenditures globally for the six months ended September 30, 2016 compared to $204 million in the same period in prior year.

Additionally, we successfully refinanced a significant portion of our long-term debt through the repayment of our 2017 and 2020 Notes and the new issuance of 2024 and 2026 Notes during the second quarter of fiscal 2017. The refinancing resulted in a "Loss on extinguishment of debt" of $112 million; however, the longer term view is that future interest savings will more than offset this cost. Due to the significantly reduced interest rates of these new issuances and timing of interest payments, we anticipate annual cash interest savings of approximately $55 million in future years.

**BUSINESS AND INDUSTRY CLIMATE**

The demand for aluminum in the automotive industry continues to grow. This demand has been primarily driven by the benefits that result from using lighter weight materials in vehicles, as companies respond to government regulations, which are driving improved emissions and better fuel economy; while also maintaining or improving vehicle safety and performance. We expect the automotive aluminum market to grow significantly through the end of the decade, which has driven the investments we made in our automotive sheet finishing capacity in North America, Europe and Asia.

While economic growth and material substitution continues to drive increasing global demand for aluminum, slower economic growth and uncertainty in China along with increased competition from Chinese suppliers of flat rolled aluminum products has put downward pressure on conversion premiums in Asia. Global overcapacity is also adding to some pricing pressures for can and specialty products.

***Key Sales and Shipment Trends***

| **(in millions, except shipments which are in kt)** | **Three Months Ended** | | | | **Year Ended** | **Three Months Ended** | |
|---|---|---|---|---|---|---|---|
| | **June 30, 2015** | **Sept 30, 2015** | **Dec 31, 2015** | **March 31, 2016** | **March 31, 2016** | **June 30, 2016** | **Sept 30, 2016** |
| **Net sales** | $ 2,634 | $ 2,482 | $ 2,354 | $ 2,402 | $ 9,872 | $ 2,296 | $ 2,361 |
| Percentage (decrease) increase in net sales versus comparable previous year period | (2)% | (12)% | (17)% | (14)% | (11)% | (13)% | (5)% |
| **Rolled product shipments:** | | | | | | | |
| North America | 261 | 269 | 253 | 249 | 1,032 | 242 | 252 |
| Europe | 252 | 250 | 232 | 244 | 978 | 246 | 236 |
| Asia | 193 | 187 | 193 | 187 | 760 | 178 | 176 |
| South America | 107 | 117 | 132 | 134 | 490 | 103 | 121 |
| Eliminations | (45) | (35) | (31) | (26) | (137) | (14) | (12) |
| Total | 768 | 788 | 779 | 788 | 3,123 | 755 | 773 |
| | | | | | | | |
| The following summarizes the percentage increase (decrease) in rolled product shipments versus the comparable previous year period: | | | | | | | |
| North America | 5 % | 3 % | (1)% | 2 % | 2 % | (7)% | (6)% |
| Europe | 2 % | 7 % | 6 % | 2 % | 4 % | (2)% | (6)% |
| Asia | 3 % | 1 % | (3)% | (5)% | (1)% | (8)% | (6)% |
| South America | (6)% | 1 % | 2 % | 2 % | — % | (4)% | 3 % |
| Total | — % | 3 % | 3 % | 4 % | 2 % | (2)% | (2)% |

***Business Model and Key Concepts***

*Conversion Business Model*

A significant amount of our business is conducted under a conversion model, which allows us to pass through increases or decreases in the price of aluminum to our customers. Nearly all of our flat-rolled products have a price structure with three components: (i) a base aluminum price quoted off the LME; (ii) a local market premium; and (iii) a “conversion premium” to produce the rolled product which reflects, among other factors, the competitive market conditions for that product. Base aluminum prices are typically driven by macroeconomic factors and global supply and demand of aluminum. The local market premiums tend to vary based on the supply and demand for metal in a particular region and associated transportation costs.

In North America, Europe and South America, we pass through local market premiums to our customers which are recorded through "Net sales." In Asia we purchase our metal inputs based on the LME and incur a local market premium; however, many of our competitors in this region price their metal off the Shanghai Futures Exchange, which does not include a local market premium, making it difficult for us to fully pass through this component of our metal input cost to some of our customers.

*LME Base Aluminum Prices and Local Market Premiums*

The average (based on the simple average of the monthly averages) and closing prices based upon the LME prices for aluminum for the three and six months ended September 30, 2016 and 2015 are as follows:

| | Three Months Ended September 30, | | Percent | Six Months Ended September 30, | | Percent |
|---|---|---|---|---|---|---|
| | 2016 | 2015 | Change | 2016 | 2015 | Change |
| **London Metal Exchange Prices** | | | | | | |
| Aluminum (per metric tonne, and presented in U.S. dollars): | | | | | | |
| Closing cash price as of beginning of period | $ 1,635 | $ 1,647 | (1)% | $ 1,492 | $ 1,789 | (17)% |
| Average cash price during the period | $ 1,620 | $ 1,589 | 2 % | $ 1,596 | $ 1,679 | (5)% |
| Closing cash price as of end of period | $ 1,659 | $ 1,562 | 6 % | $ 1,659 | $ 1,562 | 6 % |

The weighted average local market premium was as follows for the three and six months ended September 30, 2016 and 2015 are as follows:

| | Three Months Ended September 30, | | Percent | Six Months Ended September 30, | | Percent |
|---|---|---|---|---|---|---|
| | 2016 | 2015 | Change | 2016 | 2015 | Change |
| Weighted average Local Market Premium (per metric tonne, and presented in U.S. dollars) | $ 130 | $ 178 | (27)% | 137 | 235 | (42)% |

*Metal Price Lag and Related Hedging Activities*

Increases or decreases in the price of aluminum based on average LME base aluminum prices and local market premiums directly impact “Net sales,” “Cost of goods sold (exclusive of depreciation and amortization)” and working capital. The timing of these impacts varies based on contractual arrangements with customers and metal suppliers in each region. These timing impacts are referred to as metal price lag. Metal price lag exists due to: (i) the period of time between the pricing of our purchases of metal, holding and processing the metal, and the pricing of the sale of finished inventory to our customers, and (ii) certain customer contracts containing fixed forward price commitments which result in exposure to changes in metal prices for the period of time between when our sales price fixes and the sale actually occurs.

We use LME aluminum forward contracts to preserve our conversion margins and manage the timing differences associated with the LME base metal component of “Net sales,” and “Cost of goods sold (exclusive of depreciation and amortization)." These derivatives directly hedge the economic risk of future LME base metal price fluctuations to better match the purchase price of metal with the sales price of metal. We do not use derivative contracts to offset the impacts of local market premium price movements as these contracts are not prevalent in the market. As a consequence, volatility in local market premiums can have a significant impact on our results of operations and cash flows. Reduced volatility of local market premiums reduced the amount of metal price lag for the six months ended September 30, 2016.

We elect to apply hedge accounting to better match the recognition of gains or losses on certain derivative instruments with the recognition of the underlying exposure being hedged in the statement of operations. For undesignated metal derivatives, there are timing differences between the recognition of unrealized gains or losses on the derivatives and the recognition of the underlying exposure in the statement of operations. The recognition of unrealized gains and losses on undesignated metal derivative positions typically precedes inventory cost recognition, customer delivery and revenue recognition. The timing difference between the recognition of unrealized gains and losses on undesignated metal derivatives and cost or revenue recognition impacts "Loss before income taxes" and "Net loss." Gains and losses on metal derivative contracts are not recognized in "Segment income" until realized.

See *Segment Review* below for the impact of metal price lag on each of our segments.

*Foreign Currency and Related Hedging Activities*

We operate a global business and conduct business in various currencies around the world. We have exposure to foreign currency risk as fluctuations in foreign exchange rates impact our operating results as we translate the operating results from various functional currencies into our U.S. dollar reporting currency at the current average rates. We also record foreign exchange remeasurement gains and losses when business transactions are denominated in currencies other than the functional currency of that operation. Global economic uncertainty is contributing to higher levels of volatility among the currency pairs in which we conduct business. The following table presents the exchange rates as of the end of each period and the average of the month-end exchange rates for the three and six months ended September 30, 2016 and 2015:

| | Exchange Rate as of | | Average Exchange Rate<br>Three Months Ended September 30, | | Average Exchange Rate<br>Six Months Ended September 30, | |
|---|---|---|---|---|---|---|
| | September 30, 2016 | March 31, 2016 | 2016 | 2015 | 2016 | 2015 |
| U.S. dollar per Euro | 1.124 | 1.139 | 1.119 | 1.112 | 1.120 | 1.112 |
| Swiss franc per Euro | 1.091 | 1.094 | 1.090 | 1.079 | 1.093 | 1.060 |
| Brazilian real per U.S. dollar | 3.246 | 3.559 | 3.242 | 3.671 | 3.330 | 3.381 |
| South Korean won per U.S. dollar | 1,096 | 1,154 | 1,114 | 1,179 | 1,140 | 1,140 |
| Canadian dollar per U.S. dollar | 1.312 | 1.298 | 1.309 | 1.321 | 1.299 | 1.277 |

In both South Korea and Europe, operations are recorded in their local currency and translated into the U.S. dollar reporting currency. When comparing the operating results of the second quarter of fiscal 2017 with the second quarter of fiscal 2016, for South Korea and Europe, the weaker U.S. dollar resulted in a favorable foreign exchange translation.

In Brazil and Canada, the U.S. dollar is the functional currency due to predominantly U.S. dollar selling prices while our operating costs are predominately denominated in the Brazilian real and the Canadian dollar. The weaker U.S. dollar compared to the Brazilian real and the Canadian dollar resulted in an unfavorable remeasurement of local currency operating costs and liabilities into the U.S. dollar in the second quarter of fiscal 2017 compared to the second quarter of fiscal 2016.

We use foreign exchange forward contracts and cross-currency swaps to manage our exposure arising from recorded assets and liabilities, firm commitments, and forecasted cash flows denominated in currencies other than the functional currency of certain operations, which include capital expenditures and net investment in foreign subsidiaries. In the second quarter of fiscal 2017 and fiscal 2016, we recognized a net currency gain of $2 million and a net currency loss of $3 million, respectively, from the remeasurement of non-functional currency denominated assets and liabilities net of related hedging activities. The movement of currency exchange rates during the second quarter of fiscal 2017 and the second quarter of fiscal 2016 resulted in a less than $1 million of net unrealized gains and $4 million of net unrealized losses, respectively, on undesignated foreign currency derivatives.

See *Segment Review* below for the impact of foreign currency on each of our segments.

**RESULTS OF OPERATIONS FOR THE THREE MONTHS ENDED SEPTEMBER 30, 2016 COMPARED TO THE THREE MONTHS ENDED SEPTEMBER 30, 2015**

"Net sales" decreased $121 million, or 5%, driven by a decrease in average aluminum prices and a 15 kt decrease in flat rolled products shipments. This was partially offset by the favorable impact from our strategic shift to higher conversion premium products.

"Cost of goods sold (exclusive of depreciation and amortization)" decreased $261 million, or 12%, due to lower weighted average metal costs and cost improvements. Total metal input costs included in "Cost of goods sold (exclusive of depreciation and amortization)" decreased $258 million.

"Loss before income taxes" for the three months ended September 30, 2016 was $62 million, compared to a $16 million "Loss before income taxes" in the three months ended September 30, 2015. In addition to the factors noted above, the following additional items affected "Income before income taxes:"

- Declines in local market premiums which we are unable to hedge economically resulted in a $14 million metal price lag loss in the current period compared to a $54 million loss in the prior year;
- "Loss on extinguishment of debt" in the current year of $112 million relates to the extinguishment of our 2017 and 2020 Senior Notes;
- Net gains related to changes in the fair value of other unrealized derivative instruments of $4 million compared to $15 million of losses in the same period in the prior year, which is reported as "Other expense (income), net"; and
- A loss of $27 million was recognized on the sale of our interest in the Aluminium Company of Malaysia Berhad, which was reported as Other expense (income), net".

We recognized $27 million of tax expense for the three months ended September 30, 2016, primarily due to tax losses in jurisdictions where we believe it more likely than not that we will not be able to utilize those losses and therefore have a valuation allowance recorded, offset by dividends not subject to tax. We recognized $3 million of tax benefit for the three months ended September 30, 2015, primarily driven by tax losses in jurisdictions where we believe it to be more likely than not that we will not be able to utilize those losses and therefore have a valuation allowance recorded, offset by favorable remeasurement of deferred income taxes and dividends not subject to tax.

We reported "Net loss attributable to our common shareholder" of $89 million for the three months ended September 30, 2016 as compared to "Net loss attributable to our common shareholder" of $13 million for the three months ended September 30, 2015, primarily as a result of the factors discussed above.

***Segment Review***

Due in part to the regional nature of supply and demand of aluminum rolled products and in order to best serve our customers, we manage our activities on the basis of geographical regions and are organized under four operating segments: North America, Europe, Asia and South America.

We measure the profitability and financial performance of our operating segments based on "Segment income." We define "Segment income" as earnings before (a) "depreciation and amortization"; (b) "interest expense and amortization of debt issuance costs"; (c) "interest income"; (d) unrealized gains (losses) on changes in fair value of derivative instruments, net, except for foreign currency remeasurement hedging activities, which are included in segment income; (e) impairment of goodwill; (f) gain or loss on extinguishment of debt; (g) noncontrolling interests' share; (h) adjustments to reconcile our proportional share of "Segment income" from non-consolidated affiliates to income as determined on the equity method of accounting; (i) "restructuring and impairment, net"; (j) gains or losses on disposals of property, plant and equipment and businesses, net; (k) other costs, net; (l) litigation settlement, net of insurance recoveries; (m) sale transaction fees; (n) provision or benefit for taxes on income (loss) and (o) cumulative effect of accounting changes, net of tax. The financial information for our segments includes the results of our affiliates on a proportionately consolidated basis, which is consistent with the way we manage our business segments. See Note 5 — Consolidation and Note 6 — Investment in and Advances to Non-Consolidated Affiliates and Related Party Transactions for further information about these affiliates. Our presentation of "Segment income" on a consolidated basis is a non-GAAP financial measure. See "Non-GAAP Financial Measures" below for additional discussion about our use of "Total Segment income."

The tables below show selected segment financial information (in millions, except shipments which are in kt). For additional financial information related to our operating segments, see Note 17 — Segment, Major Customer and Major Supplier Information. In order to reconcile the financial information for the segments shown in the tables below to the relevant U.S. GAAP-based measures, "Eliminations and Other" adjusts for proportional consolidation of each line item, and eliminates intersegment shipments (in kt) and intersegment "Net sales."

| Selected Operating Results Three Months Ended September 30, 2016 | North America | Europe | Asia | South America | Eliminations and Other | Total |
|---|---|---|---|---|---|---|
| Net sales | $ 775 | $ 729 | $ 458 | $ 372 | $ 27 | $ 2,361 |
| Shipments | | | | | | |
| Rolled products - third party | 252 | 232 | 175 | 114 | — | 773 |
| Rolled products - intersegment | — | 4 | 1 | 7 | (12) | — |
| Total rolled products | 252 | 236 | 176 | 121 | (12) | 773 |
| Non-rolled products | 2 | 2 | 2 | 18 | — | 24 |
| Total shipments | 254 | 238 | 178 | 139 | (12) | 797 |

| Selected Operating Results Three Months Ended September 30, 2015 | North America | Europe | Asia | South America | Eliminations and Other | Total |
|---|---|---|---|---|---|---|
| Net sales | $ 835 | $ 839 | $ 479 | $ 377 | $ (48) | $ 2,482 |
| Shipments | | | | | | |
| Rolled products - third party | 268 | 235 | 173 | 112 | — | 788 |
| Rolled products - intersegment | 1 | 15 | 14 | 5 | (35) | — |
| Total rolled products | 269 | 250 | 187 | 117 | (35) | 788 |
| Non-rolled products | 4 | 45 | 1 | 21 | — | 71 |
| Total shipments | 273 | 295 | 188 | 138 | (35) | 859 |

The following table reconciles changes in “Segment income” for the three months ended September 30, 2015 to the three months ended September 30, 2016 (in millions).

| Changes in Segment income | North America | Europe | Asia | South America | Eliminations (A) | Total |
|---|---|---|---|---|---|---|
| **Segment Income - Three Months Ended September 30, 2015** | $ 53 | $ 41 | $ 34 | $ 54 | $ — | $ 182 |
| Volume | (16) | (12) | (8) | 6 | 16 | (14) |
| Conversion premium and product mix | — | 3 | (3) | 6 | 8 | 14 |
| Conversion costs (B) | 28 | 5 | 8 | 6 | (24) | 23 |
| Metal price lag (C) | 33 | 9 | 1 | (3) | — | 40 |
| Foreign exchange | — | 1 | 7 | 16 | — | 24 |
| Selling, general & administrative and research & development costs (D) | (3) | (4) | — | (2) | — | (9) |
| Other changes | (5) | (1) | 3 | (1) | — | (4) |
| **Segment Income - Three Months Ended September 30, 2016** | $ 90 | $ 42 | $ 42 | $ 82 | $ — | $ 256 |

(A) The recognition of "Segment income" by a region on an intersegment shipment could occur in a period prior to the recognition of "Segment income" on a consolidated basis, depending on the timing of when the inventory is sold to the third party customer. The "Eliminations" column adjusts regional "Segment income" for intersegment shipments that occur in a period prior to recognition of "Segment income" on a consolidated basis. The "Eliminations" column also reflects adjustments for changes in regional volume, conversion premium and product mix, and conversion costs related to intersegment shipments for consolidation.

(B) Conversion costs include expenses incurred in production such as direct and indirect labor, energy, freight, scrap usage, alloys and hardeners, coatings, alumina, melt loss, the benefit of utilizing scrap and other metal costs. Conversion costs are excluding costs related to changes in mix. Fluctuations in this component reflect cost efficiencies (inefficiencies) during the period as well as cost (inflation) deflation.

(C) Metal price lag impacts on year over year comparisons was primarily driven by local market premium price volatility which we are unable to hedge economically.

(D) Selling, general & administrative costs and research & development costs include costs incurred directly by each segment and all corporate related costs, which are allocated to each of our segments.

***North America***

“Net sales” decreased $60 million, or 7%, primarily due to lower can shipments and lower average aluminum prices partially offset by higher automotive and specialty shipments as we continue to adjust our product mix to match demand. As a result of the continued ramp-up of our new automotive lines in the region and higher demand in the automotive sector, we expect to see positive year over year automotive shipment growth in the remainder of fiscal year 2017.

“Segment income” increased $37 million to $90 million, due to strong operational performance resulting from lower metal input and conversion costs, favorable metal price lag due to reduced local market premium volatility and operational efficiencies. These positive factors were partially offset by lower volumes associated with can shipments and higher employment costs associated with our postretirement plans and higher fixed costs related to commissioning of our third automotive line.

***Europe***

“Net sales” decreased $110 million, or 13%, primarily due to lower can and specialty shipments and lower average aluminum prices, partially offset by higher automotive shipments. We continue to experience strong market demand for automotive products.

“Segment income” increased to $42 million primarily related to favorable metal price lag, favorable product mix as a result of our portfolio optimization efforts, and lower metal input costs resulting from increased production and usage of internally manufactured sheet ingot from our new recycling facility in Nachterstedt, Germany. These positive factors were partially offset by reduced can volumes.

***Asia***

"Net sales" decreased $21 million, or 4%, due to a decline in average aluminum prices, lower can shipments and pricing.

"Segment income" increased $8 million to $42 million reflecting lower metal input costs and changes in foreign currency rates, partially offset by lower shipments and can pricing.

***South America***

"Net sales" decreased $5 million, or 1%, primarily due to lower average aluminum prices and increased shipments of can and specialty products over the prior year.

"Segment income" increased $28 million to $82 million, primarily reflecting foreign currency benefits, lower metal input costs and favorable pricing, which were partially offset by higher employment costs.

***Reconciliation of segment results to "Net income (loss) attributable to our common shareholder"***

Costs such as depreciation and amortization, interest expense and unrealized (losses) gains on changes in the fair value of derivatives (except for derivatives used to manage our foreign currency remeasurement activities) are not utilized by our chief operating decision maker in evaluating segment performance. The table below reconciles income (loss) from reportable segments to "Net income (loss) attributable to our common shareholder" for the three months ended September 30, 2016 and 2015 (in millions).

| | Three Months Ended September 30, | |
|---|---|---|
| | 2016 | 2015 |
| North America | $ 90 | $ 53 |
| Europe | 42 | 41 |
| Asia | 42 | 34 |
| South America | 82 | 54 |
| Total Segment income | 256 | 182 |
| Depreciation and amortization | (90) | (89) |
| Interest expense and amortization of debt issuance costs | (81) | (82) |
| Adjustment to eliminate proportional consolidation | (8) | (8) |
| Unrealized gains (losses) on change in fair value of derivative instruments, net | 4 | (15) |
| Realized losses on derivative instruments not included in segment income | — | (3) |
| Gain on assets held for sale | 1 | — |
| Loss on extinguishment of debt | (112) | — |
| Restructuring and impairment, net | (1) | (4) |
| Loss on sale of a business | (27) | — |
| Loss on sale of fixed assets | (2) | — |
| Other (costs) income, net | (2) | 3 |
| Loss before income taxes | (62) | (16) |
| Income tax provision (benefit) | 27 | (3) |
| Net loss | (89) | (13) |
| Net income attributable to noncontrolling interests | — | — |
| **Net loss attributable to our common shareholder** | $ (89) | $ (13) |

"Adjustment to eliminate proportional consolidation" relates to depreciation and amortization and income taxes at our Aluminium Norf GmbH (Alunorf) joint venture. Income taxes related to our equity method investments are reflected in the carrying value of the investment and not in our consolidated "Income tax provision."

"Realized losses on derivative instruments not included in segment income" represents realized gains (losses) on foreign currency derivatives related to capital expenditures.

"Other costs, net" related primarily to losses on certain indirect tax expenses in Brazil, and interest income.

**RESULTS OF OPERATIONS FOR THE SIX MONTHS ENDED SEPTEMBER 30, 2016 COMPARED TO THE SIX MONTHS ENDED SEPTEMBER 30, 2015**

“Net sales” decreased $459 million, or 9%, driven by a decrease in flat rolled product shipments and a decrease in average aluminum prices partially offset by the favorable impact from our strategic shift to higher conversion premium products.

“Cost of goods sold (exclusive of depreciation and amortization)” decreased $731 million, or 16%, due to lower average base aluminum prices and cost improvements. Total metal input costs included in "Cost of goods sold (exclusive of depreciation and amortization)” decreased $706 million.

“Loss before income taxes” for the six months ended September 30, 2016 was $2 million, compared to a $61 million "Loss before income taxes" in the six months ended September 30, 2015. In addition to the factors noted above, the following additional items affected “Loss before income taxes:”

- Declines in local market premiums which we are unable to hedge economically resulted in a $27 million metal price lag loss in the first six months of this fiscal year compared to an $139 million loss in the prior year;
- "Loss on extinguishment of debt" in the current year of $112 million relates to the extinguishment of our 2017 and 2020 Senior Notes and in the prior year the loss relates to the partial extinguishment of our Term Loan Facility, which was amended during the first quarter of fiscal 2016;
- "Restructuring and impairment, net" of $3 million for the six months ended September 30, 2016 was $3 million compared to $19 million of expenses in the same period of the prior year;
- Net losses related to changes in the fair value of other unrealized derivative instruments of $3 million compared to $20 million of gains in the same period in the prior year, which is reported as "Other expense (income), net"; and
- A loss of $27 million was recognized on the sale of our interest in the Aluminium Company of Malaysia Berhad, which was reported as Other expense (income), net".

We recognized $63 million of tax expense for the six months ended September 30, 2016, primarily due to tax losses in jurisdictions where we believe it more likely than not that we will not be able to utilize those losses and therefore have a valuation allowance recorded and unfavorable foreign exchange translation and remeasurement of deferred income taxes, offset by dividends not subject to tax. We recognized $12 million of tax benefit for the six months ended September 30, 2015, primarily driven by tax losses in jurisdictions where we believe it to be more likely than not that we will not be able to utilize those losses and therefore have a valuation allowance recorded, offset by favorable foreign exchange translation and remeasurement of deferred income taxes and dividends not subject to tax.

We reported “Net loss attributable to our common shareholder” of $65 million for the six months ended September 30, 2016 as compared to "Net loss attributable to our common shareholder" of $73 million for the six months ended September 30, 2015, primarily as a result of the factors discussed above.

***Segment Review***

The tables below show selected segment financial information (in millions, except shipments which are in kt). For additional financial information related to our operating segments, see Note 17 — Segment, Major Customer and Major Supplier Information. In order to reconcile the financial information for the segments shown in the tables below to the relevant U.S. GAAP-based measures, "Other and eliminations" must adjust for proportional consolidation of each line item, and eliminate intersegment shipments (in kt), intersegment sales, and intersegment income.

| Selected Operating Results Six Months Ended September 30, 2016 | North America | Europe | Asia | South America | Eliminations and Other | Total |
|---|---|---|---|---|---|---|
| Net sales | $ 1,518 | $ 1,496 | $ 902 | $ 691 | $ 50 | $ 4,657 |
| Shipments | | | | | | |
| Rolled products - third party | 493 | 473 | 351 | 211 | — | 1,528 |
| Rolled products - intersegment | 1 | 9 | 3 | 13 | (26) | — |
| Total rolled products | 494 | 482 | 354 | 224 | (26) | 1,528 |
| Non-rolled products | 3 | 5 | 4 | 33 | — | 45 |
| Total shipments | 497 | 487 | 358 | 257 | (26) | 1,573 |

| Selected Operating Results Six Months Ended September 30, 2015 | North America | Europe | Asia | South America | Eliminations and Other | Total |
|---|---|---|---|---|---|---|
| Net sales | $ 1,723 | $ 1,719 | $ 1,045 | $ 768 | $ (139) | $ 5,116 |
| Shipments | | | | | | |
| Rolled products - third party | 529 | 466 | 355 | 206 | — | 1,556 |
| Rolled products - intersegment | 1 | 36 | 25 | 18 | (80) | — |
| Total rolled products | 530 | 502 | 380 | 224 | (80) | 1,556 |
| Non-rolled products | 9 | 64 | 2 | 44 | — | 119 |
| Total shipments | 539 | 566 | 382 | 268 | (80) | 1,675 |

The following table reconciles changes in “Segment income” for the six months ended September 30, 2015 to the six months ended September 30, 2016 (in millions).

| Changes in Segment income | North America | Europe | Asia | South America | Eliminations (A) | Total |
|---|---|---|---|---|---|---|
| **Segment Income - Six Months Ended September 30, 2015** | $ 95 | $ 32 | $ 70 | $ 113 | $ (1) | $ 309 |
| Volume | (35) | (18) | (17) | 1 | 46 | (23) |
| Conversion premium and product mix | 5 | 12 | (6) | 19 | 5 | 35 |
| Conversion costs (B) | 70 | 14 | 27 | 6 | (50) | 67 |
| Metal price lag (C) | 54 | 58 | 3 | (3) | — | 112 |
| Foreign exchange | (3) | 1 | 3 | 22 | — | 23 |
| Primary operations | — | — | — | (1) | — | (1) |
| Selling, general & administrative and research & development costs (D) | (1) | (3) | 3 | (2) | — | (3) |
| Other changes | (9) | (2) | 4 | (1) | — | (8) |
| **Segment Income - Six Months Ended September 30, 2016** | $ 176 | $ 94 | $ 87 | $ 154 | $ — | $ 511 |

(A) The recognition of "Segment income" by a region on an intersegment shipment could occur in a period prior to the recognition of "Segment income" on a consolidated basis, depending on the timing of when the inventory is sold to the third party customer. The "Eliminations" column adjusts regional "Segment income" for intersegment shipments that occur in a period prior to recognition of "Segment income" on a consolidated basis. The "Eliminations" column also reflects adjustments for changes in regional volume, conversion premium and product mix, and conversion costs related to intersegment shipments for consolidation.
(B) Conversion costs include expenses incurred in production such as direct and indirect labor, energy, freight, scrap usage, alloys and hardeners, coatings, alumina, melt loss, the benefit of utilizing scrap and other metal costs. Fluctuations in this component reflect cost efficiencies (inefficiencies) during the period as well as cost (inflation) deflation.
(C) Metal price lag impacts on year over year comparisons were primarily driven by local market premium price volatility which we are unable to hedge economically.
(D) Selling, general & administrative costs and research & development costs include costs incurred directly by each segment and all corporate related costs, which are allocated to each of our segments.

***North America***

“Net sales” decreased $205 million, or 12%, primarily due to lower average aluminum prices and lower can shipments partially offset by higher automotive shipments as we continue to adjust our product mix to match demand.

“Segment income” increased $81 million, or 85% to $90 million, due to strong operational performance resulting from lower metal input and conversion costs, favorable metal price lag due to reduced local market premium volatility and operational efficiencies. These positive factors were partially offset by lower volumes associated with can shipments and higher employment costs associated with our postretirement plans and higher fixed costs related to commissioning of our third automotive line.

***Europe***

“Net sales” decreased $223 million, or 13%, primarily due to lower can and specialty shipments and lower average aluminum prices, partially offset by higher automotive shipments.

“Segment income” increased $62 million to $94 million, primarily related to favorable metal price lag, favorable product mix as a result of our portfolio optimization efforts, and lower metal input costs resulting from increased production and usage of internally manufactured sheet ingot from our new recycling facility in Nachterstedt, Germany. These benefits were partially offset by reduced can and specialty volumes.

***Asia***

"Net sales" decreased $143 million, or 14%, due to lower can shipments, lower can pricing, and lower average aluminum prices.

"Segment income" increased $17 million to $87 million, primarily due to foreign currency rates and lower metal input costs associated with increased usage of internally manufactured sheet ingot and a decrease in the local market premium which is a cost we incur and are unable to fully pass along to some of our customers, partially offset by lower shipments and can pricing.

***South America***

"Net sales" decreased $77 million, or 10%, due to lower average aluminum prices and lower can shipments offset by favorable pricing conditions and higher specialties shipments.

"Segment income" increased $41 million to $154 million, primarily due to foreign currency benefits and lower metal input costs, which were partially offset by higher employment costs.

***Reconciliation of segment results to "Net income attributable to our common shareholder"***

Costs such as depreciation and amortization, interest expense and unrealized gains (losses) on changes in the fair value of derivatives (except for derivatives used to manage our foreign currency remeasurement activities) are not utilized by our chief operating decision maker in evaluating segment performance. The table below reconciles income from reportable segments to "Net loss attributable to our common shareholder" for the six months ended September 30, 2016 and 2015 (in millions).

| | Six Months Ended September 30, | |
|---|---|---|
| | 2016 | 2015 |
| North America | $ 176 | $ 95 |
| Europe | 94 | 32 |
| Asia | 87 | 70 |
| South America | 154 | 113 |
| Intersegment eliminations | — | (1) |
| Total Segment income | 511 | 309 |
| Depreciation and amortization | (179) | (176) |
| Interest expense and amortization of debt issuance costs | (164) | (162) |
| Adjustment to eliminate proportional consolidation | (16) | (15) |
| Unrealized (losses) gains on change in fair value of derivative instruments, net | (3) | 20 |
| Realized gains (losses) on derivative instruments not included in segment income | 1 | (2) |
| Gain on assets held for sale | 2 | — |
| Loss on extinguishment of debt | (112) | (13) |
| Restructuring and impairment, net | (3) | (19) |
| Loss on sale of a business | (27) | — |
| Loss on sale of fixed assets | (6) | (1) |
| Other costs, net | (6) | (2) |
| Loss before income taxes | (2) | (61) |
| Income tax provision | 63 | 12 |
| Net loss | (65) | (73) |
| Net income attributable to noncontrolling interests | — | — |
| **Net loss attributable to our common shareholder** | $ (65) | $ (73) |

"Adjustment to eliminate proportional consolidation" relates to depreciation and amortization and income taxes at our Aluminium Norf GmbH (Alunorf) joint venture. Income taxes related to our equity method investments are reflected in the carrying value of the investment and not in our consolidated "Income tax provision."

"Realized gains (losses) on derivative instruments not included in segment income" represents realized gains on foreign currency derivatives related to capital expenditures.

"Other costs, net" related primarily to losses on certain indirect tax expenses in Brazil, partially offset by interest income.

## Liquidity and Capital Resources

Over the past five years, we have been in a transitional period in which we invested heavily in strategically expanding rolling capacity, recycling operations and automotive finishing capabilities. Most of our expansion projects are currently ramping up operations and will generate additional operating cash flows. Our significant investments in the business were funded through cash flows generated by our operations and a combination of local financing and our senior secured credit facilities. We expect to be able to fund our continued expansions, service our debt obligations, and provide sufficient liquidity to operate our business through one or more of the following: the generation of operating cash flows; our existing debt facilities, including refinancing; and new debt issuances, as necessary.

### *Debt Refinancing*

On August 15, 2016, we commenced a cash tender offer to purchase any and all of our $1.1 billion aggregate principal amount of outstanding 8.375% Senior Notes due 2017 (the 2017 Notes). Approximately $636 million of the $1.1 billion outstanding 2017 Notes, which represents approximately 58% of the outstanding 2017 Notes, were tendered in the tender offer. On August 29, 2016, Novelis Corporation, an indirect wholly-owned subsidiary of Novelis Inc., issued and sold $1.15 billion principal amount of the 2024 Notes. Using proceeds from the sales of the 2024 Notes, we paid approximately $660 million to purchase the 2017 Notes tendered in the tender offer. Also on August 29, 2016, we irrevocably deposited with the trustee for the 2017 Notes funds sufficient to fund the redemption of the remaining outstanding 2017 Notes that were not tendered in the tender offer, which included payment of accrued and unpaid interest through, but not including, the December 15, 2016 redemption date. As a result, we were released from our obligations under the 2017 Notes and the indenture governing the 2017 Notes pursuant to the satisfaction and discharge provisions thereunder.

On September 7, 2016, we commenced a cash tender offer to purchase any and all of our $1.4 billion aggregate principal amount of 8.75% Senior Notes due 2020 (the 2020 Notes). Approximately $1.1 billion of the $1.4 billion outstanding 2020 Notes, which represented approximately 79% of the outstanding 2020 Notes, were tendered in the tender offer. On September 16, 2016, Novelis Corporation issued and sold $1.5 billion principal amount of 2026 Notes. Using proceeds from the sale of the 2026 Notes, we paid approximately $1.2 billion to purchase the 2020 Notes tendered in the tender offer. Also on September 16, 2016, we irrevocably deposited with the trustee for the 2020 Notes funds sufficient to fund the redemption of the remaining outstanding 2020 Notes that were not tendered in the tender offer, which included payment of accrued and unpaid interest through the October 14, 2016 redemption date. As a result, we were released from our obligations under the 2020 Notes and the indenture governing the 2020 Notes pursuant to the satisfaction and discharge provisions thereunder.

See the "Highlights" section for details regarding the anticipated interest savings due to the new issuances.

The 2024 and 2026 Notes issued by Novelis Corporation as part of the refinancing transactions are fully and unconditionally guaranteed, jointly and severally, on a senior unsecured basis, by Novelis Inc. and all of Novelis Inc.'s existing and future Canadian and U.S. restricted subsidiaries (other than Novelis Corporation), certain of its existing foreign restricted subsidiaries and other restricted subsidiaries that guarantee debt in the future under any credit facilities, subject to certain exceptions. The 2024 Notes and the 2026 Notes contain customer covenants and events of default. See Note 7 - Debt - Senior Notes to our accompanying condensed consolidated financial statements for additional information. In addition, pursuant to the indentures governing the 2024 and 2026 Notes, the Company is required to provide the following financial information regarding its subsidiaries:

For the six months ended September 30, 2016, the Company's subsidiaries that are not guarantors represented the following approximate percentages of (a) net sales, (b) Adjusted EBITDA, and (c) total assets of the Company, on a consolidated basis (including intercompany balances):

| Item Description | Ratio |
|---|---|
| Consolidated net sales represented by net sales to third parties by non-guarantor subsidiaries (for the six months ended September 30, 2016) | 21% |
| Consolidated Adjusted EBITDA represented by the non-guarantor subsidiaries (for the six months ended September 30, 2016) | 18% |
| Consolidated assets are owned by non-guarantor subsidiaries (as of September 30, 2016) | 18% |

In addition, for the year ended March 31, 2016 and the six months ended September 30, 2016, the Company's subsidiaries that are not guarantors had net sales of $2.4 billion and $1.2 billion, respectively, and, as of September 30, 2016, those subsidiaries had assets of $2.0 billion and debt and other liabilities of $1.3 billion (including inter-company balances).

***Available Liquidity***

Our available liquidity as of September 30, 2016 and March 31, 2016 is as follows (in millions):

| | September 30, 2016 | March 31, 2016 |
|---|---|---|
| Cash and cash equivalents | $ 473 | $ 556 |
| Availability under committed credit facilities | 573 | 640 |
| Total liquidity | $ 1,046 | $ 1,196 |

Available liquidity decreased $150 million to $1,046 million as of September 30, 2016. The decrease is primarily attributable to negative free cash flow of $102 million, the extinguishment of the $200 million Subordinated Lien Revolver and debt issuance costs of $134 million; offset by an increase in the ABL borrowing base of $113 million, proceeds under our debt instruments of $165 million and other increases of $8 million. As of September 30, 2016, our availability under committed credit facilities of $573 million was comprised of $317 million under our ABL Revolver, and $256 million under our Korea, China, and Middle East loan facilities.

The “Cash and cash equivalents” balance above includes cash held in foreign countries in which we operate. As of September 30, 2016, we held less than $1 million of "Cash and cash equivalents" in Canada, where we are incorporated, with the rest held in other countries in which we operate. As of September 30, 2016, we held $265 million of cash in jurisdictions for which we have asserted that earnings are indefinitely reinvested and we plan to continue to fund operations and local expansions with cash held in those jurisdictions. Our significant future uses of cash include funding our expansion projects globally, which we plan to fund with cash flows from operating activities and local financing, and servicing our debt obligations domestically, which we plan to fund with cash flows from operating activities and, if necessary, by repatriating cash from jurisdictions for which we have not asserted that earnings are indefinitely reinvested. Cash held outside of Canada is free from significant restrictions that would prevent the cash from being accessed to meet the Company's liquidity needs including, if necessary, to fund operations and service debt obligations in Canada. Upon the repatriation of any earnings to Canada, in the form of dividends or otherwise, we could be subject to Canadian income taxes (subject to adjustment for foreign taxes paid and the utilization of the large cumulative net operating losses we have in Canada) and withholding taxes payable to the various foreign jurisdictions. As of September 30, 2016, we do not believe adverse tax consequences exist that restrict our use of “Cash or cash equivalents” in a material manner.

***Free Cash Flow***

We define “Free cash flow” (which is a non-GAAP measure) as: (a) “net cash provided by (used in) operating activities,” (b) plus "net cash provided by (used in) investing activities,” and (c) less “proceeds from sales of assets, net of transaction fees and hedging.” Management believes “Free cash flow” is relevant to investors as it provides a measure of the cash generated internally that is available for debt service and other value creation opportunities. However, “Free cash flow” does not necessarily represent cash available for discretionary activities, as certain debt service obligations must be funded out of “Free cash flow.” Our method of calculating “Free cash flow” may not be consistent with that of other companies.

The following table shows “Free cash flow” for the six months ended September 30, 2016 and 2015, the change between periods, and the ending balances of cash and cash equivalents (in millions).

| | Six Months Ended September 30, | | |
|---|---|---|---|
| | 2016 | 2015 | Change |
| Net cash used in operating activities | $ (27) | $ (63) | $ 36 |
| Net cash used in investing activities | (87) | (221) | 134 |
| Less: Proceeds from sales of assets, net of transaction fees and hedging (A) | 12 | (1) | 13 |
| Free cash flow | $ (102) | $ (285) | $ 183 |
| Ending cash and cash equivalents | $ 473 | $ 462 | $ 11 |

(A) This line item includes "Outflows from the sale of a business, net of transaction fees," which is comprised of cash of $13 million held by ALCOM, which was a consolidated entity sold during the three months ended September 30, 2016.

***Operating Activities***

Net cash used in operating activities was $27 million for the six months ended September 30, 2016, which was favorable compared to net cash used in operating activities of $63 million for the six months ended September 30, 2015. The favorable variance relates to higher "Segment income." The following summarizes changes in working capital accounts (in millions).

| | Six Months Ended September 30, 2016 | Six Months Ended September 30, 2015 | Change |
|---|---|---|---|
| Net cash used in operating activities due to changes in working capital: | | | |
| Accounts receivable | $ (159) | $ 127 | $ (286) |
| Inventories | (115) | 87 | (202) |
| Accounts payable | 22 | (384) | 406 |
| Other current assets and liabilities | (84) | 35 | (119) |
| Net change in working capital | $ (336) | $ (135) | $ (201) |

*Six Months Ended September 30, 2016*

"Accounts receivable, net" increased due to the timing of cash collections on certain customer receivables balances and lower factoring balances offset by 5% lower sales. As of September 30, 2016 and March 31, 2016, we had factored, without recourse, certain trade receivables aggregating $519 million and $626 million, respectively, which had a unfavorable impact to net cash provided by operating activities of $107 million for the six months ended September 30, 2016. We determine the need to factor our receivables based on local cash needs including the need to fund our strategic investments, as well as attempting to balance the timing of cash flows of trade payables and receivables. "Inventories" were higher due to higher quantities on hand partially offset by lower average metal costs. The higher quantities of inventory on hand at September 30, 2016 is the result of recent capacity expansions, as well as longer supply chains to support the automotive sector and expand our scrap procurement network. As of September 30, 2016, we had sold certain inventories to third parties and have agreed to repurchase the same or similar inventory back from the third parties at market prices subsequent to September 30, 2016. Our estimated repurchase obligation for this inventory as of September 30, 2016 is $23 million, based on market prices as of this date. We sell and repurchase inventory with third parties in an attempt to better manage inventory levels and to better match the purchasing of inventory with the demand for our products. "Accounts payable" increased $22 million in the six months ended September 30, 2016 due primarily to the timing of payments to vendors.

Included in cash flows from operating activities for the six months ended September 30, 2016 were $208 million of interest payments, $44 million of cash paid for income taxes, $7 million of payments on restructuring programs, and $26 million of contributions to our pension plans. As of September 30, 2016, we had $25 million of outstanding restructuring liabilities, of which $17 million we estimate will result in cash outflows within the next twelve months. We also expect to incur restructuring charges in future periods as we dismantle the smelter site in South America.

*Six Months Ended September 30, 2015*

"Accounts receivable, net" decreased due to 7% lower sales and higher forfaiting and factoring (collectively referred to as factoring) of accounts receivable. As of September 30, 2015 and March 31, 2015, we had factored, without recourse, certain trade receivable aggregating $685 million and $591 million, respectively, which had a favorable impact to net cash provided by operating activities of $94 million for the six months ended September 30, 2015. "Inventories" were lower due to lower average metal costs, partially offset by higher quantities on hand. The higher quantities of inventory on hand at September 30, 2015 is the result of recent capacity expansions, as well as longer supply chains to support the auto sector and expand our scrap procurement network. As of September 30, 2015, we had sold certain inventories to third parties and have agreed to repurchase the same or similar inventory back from the third parties at market prices subsequent to September 30, 2015. Our estimated repurchase obligation for this inventory as of September 30, 2015 is $25 million, based on market prices as of these dates. "Accounts payable" declined $384 million in the second quarter of fiscal 2016 due to lower metal input costs, partially offset by longer payment terms with certain vendors.

*Hedging Activities*

We use derivative contracts to manage risk as well as liquidity. Under our terms of credit with counterparties to our derivative contracts, we do not have any material margin call exposure. No material amounts have been posted by Novelis nor do we hold any material amounts of margin posted by our counterparties. We settle derivative contracts in advance of billing on the underlying physical inventory and collecting payment from our customers, which temporarily impacts our liquidity position. The lag between derivative settlement and customer collection typically ranges from 30 to 90 days.

More details on our operating activities can be found above in “Results of operations for the six months ended September 30, 2016 compared to the six months ended September 30, 2015."

***Investing Activities***

The following table presents information regarding our “Net cash used in investing activities” (in millions).

| | Six Months Ended September 30, | | |
|---|---|---|---|
| | 2016 | 2015 | Change |
| Capital expenditures | $ (90) | $ (204) | $ 114 |
| Proceeds (outflows) from settlement of other undesignated derivative instruments, net | 6 | (14) | 20 |
| Proceeds from sales of assets, third party, net of transaction fees and hedging | 1 | 1 | — |
| Outflows from the sale of a business, net of transaction fees | (13) | — | (13) |
| Proceeds (outflows) from investment in and advances to non-consolidated affiliates, net | 9 | (4) | 13 |
| **Net cash used in investing activities** | $ (87) | $ (221) | $ 134 |

For the six months ended September 30, 2016, our "Capital expenditures" were primarily attributable to maintenance of existing property, plant, and equipment. For the six months ended September 30, 2015, our "Capital expenditures" were primarily attributable to our automotive sheet finishing expansions in the U.S. and Germany.

As of September 30, 2016, we had $43 million of outstanding accounts payable and accrued liabilities related to capital expenditures in which the cash outflows will occur subsequent to September 30, 2016. We expect capital expenditures for fiscal 2017 to be approximately $250 million.

The settlement of undesignated derivative instruments resulted in cash inflow of $6 million and cash outflow of $14 million, in the six months ended September 30, 2016 and 2015, respectively. The variance in these cash flows related primarily to changes in average aluminum prices and foreign currency rates which impact gains or losses we realize on the settlement of derivatives.

"Outflows from the sale of a business, net of transaction fees" is comprised of cash of $13 million held by ALCOM, which was a consolidated entity sold during the three months ended September 30, 2016. During the third quarter of fiscal 2017, we expect additional proceeds of $12 million, which was received in October 2016 and was recorded as "Accounts receivable, net" in our Consolidated Balance Sheet as of September 30, 2016. Refer to Note 14 - Other Expense (Income), Net for further details.

“Proceeds (outflows) from investments in and advances to non–consolidated affiliates, net" for six months ended September 30, 2016 and 2015 were primarily comprised of loan repayments and advances made to our non-consolidated affiliate, Alunorf, to fund capital expenditures.

***Financing Activities***

The following table presents information regarding our “Net cash provided by financing activities” (in millions).

| | Six Months Ended September 30, 2016 | Six Months Ended September 30, 2015 | Change |
|---|---|---|---|
| Proceeds from issuance of long-term and short-term borrowings | $ 2,765 | $ 140 | $ 2,625 |
| Principal payments of long-term and short-term borrowings | (2,609) | (135) | (2,474) |
| Revolving credit facilities and other, net | (3) | 123 | (126) |
| Dividends, noncontrolling interest | — | (1) | 1 |
| Debt issuance costs | (134) | (13) | (121) |
| **Net cash provided by financing activities** | $ 19 | $ 114 | $ (95) |

*Six Months Ended September 30, 2016*

During the six months ended September 30, 2016, we received proceeds of $1.15 billion and $1.5 billion, related to the issuance of our new 2024 and 2026 Notes, respectively. We also received proceeds related to the issuance of new short term loans in Brazil and Vietnam of $81 million and $34 million, respectively. Additionally, we made principal repayments of $1.1 billion and $1.4 billion on our 2017 Notes and 2020 Notes, respectively, $55 million on short-term loans in Brazil, $37 million on Novelis Vietnam loan repayments, $9 million on the Term Loan, $5 million on capital leases and $3 million in other principal repayments. The net cash repayments from our credit facilities balance is related to $12 million net repayments on our Middle East and Africa (MEA) facilities offset by net proceeds of $9 million in our China credit facilities.

As of September 30, 2016, our short-term borrowings were $596 million consisting of $392 million of loans under our ABL Revolver, $103 million in Novelis Brazil loans, $53 million in Novelis China loans, $40 million in Novelis Korea bank loans, $7 million in Novelis Vietnam loans and $1 million of other short-term borrowings. The weighted average interest rate on our total short-term borrowings was 2.65% as of September 30, 2016. As of September 30, 2016, $14 million of the ABL Revolver was utilized for letters of credit, reducing our availability under that facility.

*Six Months Ended September 30, 2015*

During the six months ended September 30, 2015, we received proceeds of $60 million related to the refinancing of the Term Loan as well as issuances of new loans in Brazil, Korea and Vietnam of $45 million, $27 million and $8 million, respectively. We made principal repayments of $113 million on short-term loans in Brazil, $10 million on Novelis Vietnam loan repayments, $5 million on capital leases, $5 million on the Term Loan, and $2 million in other principal repayments. The change in our credit facilities balance is related to a net increase of $68 million on our ABL Revolver and Subordinated Lien Revolver, and $55 million in our short-term revolving facilities in Novelis Asia and Novelis Middle East and Africa. In June 2015, we amended and extended our Term Loan by entering into a $1.8 billion seven-year secured term loan credit facility. Additionally, in June 2015, we entered into a new Subordinated Lien Revolver, which is a $200 million 15-month secured revolving facility.

## OFF-BALANCE SHEET ARRANGEMENTS

In accordance with SEC rules, the following qualify as off-balance sheet arrangements:

- any obligation under certain derivative instruments;
- any obligation under certain guarantees or contracts;
- a retained or contingent interest in assets transferred to an unconsolidated entity or similar entity or similar arrangement that serves as credit, liquidity or market risk support to that entity for such assets; and
- any obligation under a material variable interest held by the registrant in an unconsolidated entity that provides financing, liquidity, market risk or credit risk support to the registrant, or engages in leasing, hedging or research and development services with the registrant.

The following discussion addresses the applicable off-balance sheet items for our Company.

***Derivative Instruments***

See Note 11 — Financial Instruments and Commodity Contracts to our accompanying unaudited condensed consolidated financial statements for a description of derivative instruments.

***Guarantees of Indebtedness***

We have issued guarantees on behalf of certain of our subsidiaries. The indebtedness guaranteed is for trade accounts payable to third parties. Some of the guarantees have annual terms while others have no expiration and have termination notice requirements. Neither we nor any of our subsidiaries holds any assets of any third parties as collateral to offset the potential settlement of these guarantees. Since we consolidate wholly-owned and majority-owned subsidiaries in our condensed consolidated financial statements, all liabilities associated with trade payables and short-term debt facilities for these entities are already included in our condensed consolidated balance sheets.

We have guaranteed the indebtedness for a credit facility and loan on behalf of Alunorf.  We have also guaranteed the payment of early retirement benefits on behalf of Alunorf, though a separate associated liability for Novelis is not currently probable.

***Other Arrangements***

*Factoring of Trade Receivables*

We factor and forfait trade receivables (collectively, we refer to these as "factoring" programs) based on local cash needs, as well as attempting to balance the timing of cash flows of trade payables and receivables and fund other business needs. Factored invoices are not included in our condensed consolidated balance sheets when we do not retain a financial or legal interest. If a financial or legal interest is retained, we classify these factorings as secured borrowings. However, no such financial or legal interests are currently retained.

***Other***

As part of our ongoing business, we do not participate in transactions that generate relationships with unconsolidated entities or financial partnerships, such as entities often referred to as special purpose entities (SPEs), which would have been established for the purpose of facilitating off-balance sheet arrangements or other contractually narrow or limited purposes. As of September 30, 2016 and March 31, 2016, we are not involved in any unconsolidated SPE transactions.

**CONTRACTUAL OBLIGATIONS**

We have future obligations under various contracts relating to debt and interest payments, capital and operating leases, long-term purchase obligations, postretirement benefit plans and uncertain tax positions. See Note 7 — Debt to our accompanying unaudited condensed consolidated financial statements and "Contractual Obligations" in Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations in our Annual Report on Form 10-K for the year ended March 31, 2016 for more details.

**RETURN OF CAPITAL**

Payments to our shareholder are at the discretion of the board of directors and will depend on, among other things, our financial resources, cash flows generated by our business, our cash requirements, restrictions under the instruments governing our indebtedness, being in compliance with the appropriate indentures and covenants under the instruments that govern our indebtedness and other relevant factors.

**CRITICAL ACCOUNTING POLICIES AND ESTIMATES**

During the six months ended September 30, 2016, there were no significant changes to our critical accounting policies and estimates as reported in our Annual Report on Form 10-K for the year ended March 31, 2016.

**RECENTLY ISSUED ACCOUNTING STANDARDS**

See Note 1 — Business and Summary of Significant Accounting Policies to our accompanying condensed consolidated financial statements for a full description of recent accounting pronouncements including the respective expected dates of adoption and expected effects on results of operations and financial condition.

## NON-GAAP FINANCIAL MEASURES

Total “Segment income” presents the sum of the results of our four operating segments on a consolidated basis. We believe that total “Segment income” is an operating performance measure that measures operating results unaffected by differences in capital structures, capital investment cycles and ages of related assets among otherwise comparable companies. In reviewing our corporate operating results, we also believe it is important to review the aggregate consolidated performance of all of our segments on the same basis we review the performance of each of our regions and to draw comparisons between periods based on the same measure of consolidated performance.

Management believes investors’ understanding of our performance is enhanced by including this non-GAAP financial measure as a reasonable basis for comparing our ongoing results of operations. Many investors are interested in understanding the performance of our business by comparing our results from ongoing operations from one period to the next and would ordinarily add back items that are not part of normal day-to-day operations of our business. By providing total “Segment income,” together with reconciliations, we believe we are enhancing investors’ understanding of our business and our results of operations, as well as assisting investors in evaluating how well we are executing strategic initiatives.

However, total “Segment income” is not a measurement of financial performance under U.S. GAAP, and our total “Segment income” may not be comparable to similarly titled measures of other companies. Total “Segment income” has important limitations as an analytical tool and should not be considered in isolation or as a substitute for analysis of our results as reported under U.S. GAAP. For example, total “Segment income”:

- does not reflect the company’s cash expenditures or requirements for capital expenditures or capital commitments;
- does not reflect changes in, or cash requirements for, the company’s working capital needs; and
- does not reflect any costs related to the current or future replacement of assets being depreciated and amortized.

We also use total “Segment income”:

- as a measure of operating performance to assist us in comparing our operating performance on a consistent basis because it removes the impact of items not directly resulting from our core operations;
- for planning purposes, including the preparation of our internal annual operating budgets and financial projections;
- to evaluate the performance and effectiveness of our operational strategies; and
- as a basis to calculate incentive compensation payments for our key employees.

Total “Segment income” is equivalent to our Adjusted EBITDA, which we refer to in our earnings announcements and other external presentations to analysts and investors.

"Free cash flow" consists of: (a) net cash provided by (used in) operating activities; (b) plus net cash provided by (used in) investing activities and (c) less proceeds from sales of assets, net of transaction fees and hedging. Management believes "Free cash flow" is relevant to investors as it provides a measure of the cash generated internally that is available for debt service and other value creation opportunities. However, "Free cash flow" is not a measurement of financial performance or liquidity under U.S. GAAP and does not necessarily represent cash available for discretionary activities, as certain debt service obligations must be funded out of "Free cash flow." In addition, the Company's method of calculating "Free cash flow" may not be consistent with that of other companies.

## SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS AND MARKET DATA

This document contains forward-looking statements that are based on current expectations, estimates, forecasts and projections about the industry in which we operate, and beliefs and assumptions made by our management. Such statements include, in particular, statements about our plans, strategies and prospects. Words such as "expect," "anticipate," "intend," "plan," "believe," "seek," "estimate" and variations of such words and similar expressions are intended to identify such forward-looking statements. Examples of forward-looking statements in this Quarterly Report on Form 10-Q include, but are not limited to, our expectations with respect to the impact of metal price movements on our financial performance, the effectiveness of our hedging programs and controls, and our future borrowing availability. These statements are based on beliefs and assumptions of Novelis' management, which in turn are based on currently available information. These statements are not guarantees of future performance and involve assumptions and risks and uncertainties that are difficult to predict. Therefore, actual outcomes and results may differ materially from what is expressed, implied or forecasted in such forward-looking statements. We do not intend, and we disclaim any obligation, to update any forward-looking statements, whether as a result of new information, future events or otherwise.

This document also contains information concerning our markets and products generally, which is forward-looking in nature and is based on a variety of assumptions regarding the ways in which these markets and product categories will develop. These assumptions have been derived from information currently available to us and to the third party industry analysts quoted herein. This information includes, but is not limited to, product shipments and share of production. Actual market results may differ from those predicted. We do not know what impact any of these differences may have on our business, our results of operations, financial condition, and cash flow. Factors that could cause actual results or outcomes to differ from the results expressed or implied by forward-looking statements include, among other things:

- relationships with, and financial and operating conditions of, our customers, suppliers and other stakeholders;
- changes in the prices and availability of aluminum (or premiums associated with aluminum prices) or other materials and raw materials we use;
- fluctuations in the supply of, and prices for, energy in the areas in which we maintain production facilities;
- our ability to access financing, repay existing debt or refinance existing debt to fund current operations and for future capital requirements;
- the level of our indebtedness and our ability to generate cash to service our indebtedness;
- lowering of our ratings by a credit rating agency;
- changes in the relative values of various currencies and the effectiveness of our currency hedging activities;
- union disputes and other employee relations issues;
- factors affecting our operations, such as litigation (including product liability claims), environmental remediation and clean-up costs, breakdown of equipment and other events;
- changes in general economic conditions, including deterioration in the global economy;
- the capacity and effectiveness of our hedging activities;
- impairment of our goodwill, other intangible assets, and long-lived assets;
- loss of key management and other personnel, or an inability to attract such management and other personnel;
- risks relating to future acquisitions or divestitures;
- our inability to successfully implement our growth initiatives;
- changes in interest rates that have the effect of increasing the amounts we pay under our senior secured credit facilities, other financing agreements and our defined benefit pension plans;
- risks relating to certain joint ventures and subsidiaries that we do not entirely control;
- the effect of derivatives legislation on our ability to hedge risks associated with our business;
- competition from other aluminum rolled products producers as well as from substitute materials such as steel, glass, plastic and composite materials;
- demand and pricing within the principal markets for our products as well as seasonality in certain of our customers' industries;
- economic, regulatory and political factors within the countries in which we operate or sell our products, including changes in duties or tariffs; and
- changes in government regulations, particularly those affecting taxes and tax rates, health care reform, climate change, environmental, health or safety compliance.

The above list of factors is not exhaustive. These and other factors are discussed in more detail under "Item 1A. Risk Factors" and "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations" in our Annual Report on Form 10-K for the year ended March 31, 2016.

**Item 3. *Quantitative and Qualitative Disclosures About Market Risk***

We are exposed to certain market risks as part of our ongoing business operations, including risks from changes in commodity prices (primarily LME aluminum prices and natural gas), local market premiums, electricity rates, foreign currency exchange rates and interest rates that could impact our results of operations and financial condition. We manage our exposure to these and other market risks through regular operating and financing activities and derivative financial instruments. We use derivative financial instruments as risk management tools only, and not for speculative purposes.

By their nature, all derivative financial instruments involve risk, including the credit risk of non-performance by counterparties. All derivative contracts are executed with counterparties that, in our judgment, are creditworthy. Our maximum potential loss may exceed the amount recognized in the accompanying September 30, 2016 condensed consolidated balance sheet.

The decision of whether and when to execute derivative instruments, along with the duration of the instrument, can vary from period to period depending on market conditions and the relative costs of the instruments. The duration is linked to the timing of the underlying exposure, with the connection between the two being regularly monitored.

The market risks we are exposed to as part of our ongoing business operations are materially consistent with our risk exposures in the prior year, as we have not entered into any new material hedging programs.

**Commodity Price Risks**

We have commodity price risk with respect to purchases of certain raw materials including aluminum, electricity, natural gas and transport fuel.

*Aluminum*

A significant amount of our business is conducted under a conversion model, which allows us to pass through increases or decreases in the price of aluminum to our customers. Nearly all of our flat-rolled products have a price structure with three components: (i) a base aluminum price quoted off the LME; (ii) a local market premium; and (iii) a “conversion premium” to produce the rolled product which reflects, among other factors, the competitive market conditions for that product. Base aluminum prices are typically driven by macroeconomic factors and global supply and demand of aluminum. The local market premiums tend to vary based on the supply and demand for metal in a particular region and associated transportation costs.

Increases or decreases in the average price of aluminum based on the LME directly impact “Net sales,” “Cost of goods sold (exclusive of depreciation and amortization)” and working capital. The timing of these impacts varies based on contractual arrangements with customers and metal suppliers in each region. These timing impacts are referred to as metal price lag. Metal price lag exists due to: (i) certain customer contracts containing fixed forward price commitments which result in exposure to changes in metal prices for the period of time between when our sales price fixes and the sale actually occurs, and (ii) the period of time between the pricing of our purchases of metal, holding and processing the metal, and the pricing of the sale of finished inventory to our customers.

We use derivative instruments to preserve our conversion margins and manage the timing differences associated with metal price lag related to base aluminum price. We use over-the-counter derivatives indexed to the London Metals Exchange (LME) (referred to as our "aluminum derivative contracts") to reduce our exposure to fluctuating metal prices associated with the period of time between the pricing of our purchases of inventory and the pricing of the sale of that inventory to our customers. We also purchase forward LME aluminum contracts simultaneous with our sales contracts with customers that contain fixed metal prices. These LME aluminum forward contracts directly hedge the economic risk of future metal price fluctuations to better match the purchase price of metal with the sales price of metal.

*Sensitivities*

The following table presents the estimated potential effect on the fair values of these derivative instruments as of September 30, 2016, given a 10% increase in prices ($ in millions).

| | Change in Price | Change in Fair Value |
|---|---|---|
| LME aluminum | 10% | $ (79) |

*Energy*

We use several sources of energy in the manufacturing and delivery of our aluminum rolled products. For the quarter ended September 30, 2016, natural gas and electricity represented approximately 98% of our energy consumption by cost. We also use fuel oil and transport fuel. The majority of energy usage occurs at our casting centers and during the hot rolling of aluminum. Prior to the smelter facilities in South America ceasing operations, our smelter operations also required a significant amount of energy. Our cold rolling facilities require relatively less energy.

We purchase our natural gas and diesel fuel on the open market, subjecting us to market price fluctuations. We seek to stabilize our future exposure to natural gas and diesel fuel prices through the use of forward purchase contracts.

A portion of our electricity requirements are purchased pursuant to long-term contracts in the local regions in which we operate. A number of our facilities are located in regions with regulated prices, which affords relatively stable costs. In North America, we have entered into electricity swaps to fix a portion of the cost of our electricity requirements.

Fluctuating energy costs worldwide, due to the changes in supply and demand, and international and geopolitical events, expose us to earnings volatility as changes in such costs cannot be immediately recovered under existing contracts and sales agreements, and may only be mitigated in future periods under future pricing arrangements.

*Sensitivities*

The following table presents the estimated potential effect on the fair values of these derivative instruments as of September 30, 2016, given a 10% decline in spot prices for energy contracts ($ in millions).

| | Change in Price | Change in Fair Value |
|---|---|---|
| Electricity | (10)% | $ (5) |
| Natural Gas | (10)% | (1) |
| Diesel Fuel | (10)% | (2) |

**Foreign Currency Exchange Risks**

Exchange rate movements, particularly the Euro, the Swiss franc, the Brazilian real and the Korean won against the U.S. dollar, have an impact on our operating results. In Europe, where we have predominantly local currency selling prices and operating costs, we benefit as the Euro strengthens, but are adversely affected as the Euro weakens. In January 2015, the Swiss National Bank discontinued its policy to support a minimum exchange rate between the Euro and the Swiss franc. Following this announcement, the Swiss franc rapidly appreciated in value. This adversely impacted our Swiss operations, where operating costs are incurred primarily in the Swiss franc, and a large portion of revenues are denominated in the Euro. In South Korea, where we have local currency operating costs and U.S. dollar denominated selling prices for exports, we benefit as the won weakens but are adversely affected as the won strengthens. In Brazil, where we have predominately U.S. dollar selling prices and local currency operating costs, we benefit as the real weakens, but are adversely affected as the real strengthens.

It is our policy to minimize exposures from non-functional currency denominated transactions within each of our operating segments. We use foreign exchange forward contracts, options and cross-currency swaps to manage exposure arising from recorded assets and liabilities, firm commitments, and forecasted cash flows denominated in currencies other than the functional currency of certain operations, which include forecasted net sales, forecasted purchase commitments, capital expenditures and net investment in foreign subsidiaries. Our most significant non-U.S. dollar functional currency operations have the Euro and the Korean won as their functional currencies, respectively. Our Brazilian operations are U.S. dollar functional.

We also face translation risks related to the changes in foreign currency exchange rates which are generally not hedged. Amounts invested in these foreign operations are translated into U.S. dollars at the exchange rates in effect at the balance sheet date. The resulting translation adjustments are recorded as a component of "Accumulated other comprehensive loss" in the Shareholder's deficit section of the accompanying condensed consolidated balance sheets. Net sales and expenses at these non-U.S. dollar functional currency entities are translated into varying amounts of U.S. dollars depending upon whether the U.S. dollar weakens or strengthens against other currencies. Therefore, changes in exchange rates may either positively or negatively affect our net sales and expenses as expressed in U.S. dollars.

Any negative impact of currency movements on the currency contracts we have entered into to hedge foreign currency commitments to purchase or sell goods and services would be offset by an approximately equal and opposite favorable exchange impact on the commitments being hedged. For a discussion of accounting policies and other information relating to currency contracts, see Note 1 - Business and Summary of Significant Accounting Policies in our Annual Report on Form 10-K for the year ended March 31, 2016, and Note 11 - Financial Instruments and Commodity Contracts to our accompanying condensed consolidated financial statements.

*Sensitivities*

The following table presents the estimated potential effect on the fair values of these derivative instruments as of September 30, 2016, given a 10% change in rates ($ in millions).

| | Change in Exchange Rate | Change in Fair Value |
|---|---|---|
| **Currency measured against the U.S. dollar** | | |
| Brazilian real | (10)% | $ (19) |
| Euro | 10 % | (43) |
| Korean won | (10)% | (37) |
| Canadian dollar | (10)% | (5) |
| British pound | (10)% | (14) |
| Swiss franc | (10)% | (31) |
| Chinese yuan | 10 % | (8) |

**Interest Rate Risks**

We use interest rate swaps to manage our exposure to changes in benchmark interest rates which impact our variable-rate debt.

Our Term Loan Facility is a floating rate obligation with a floor feature. Our interest rate paid is a spread of 3.25% plus the higher of LIBOR or 75 basis points (0.75% floor). As of September 30, 2016, this floor feature was in effect, which resulted in an interest rate of 4.00%. Due to the floor feature of the Term Loan Facility as of September 30, 2016, a 10 basis point increase or decrease in LIBOR interest rates would have had no impact on our annual pre-tax income. To be above the Term Loan Facility floor, future interest rates would have to increase by 11 basis points (bps).

From time to time, we have used interest rate swaps to manage our debt cost. As of September 30, 2016, there were no USD LIBOR based interest rate swaps outstanding.

In Korea, we periodically enter into interest rate swaps to fix the interest rate on various floating rate debt in order to manage our exposure to changes in the 3M-CD interest rate. See Note 11- Financial Instruments and Commodity Contracts for further information on the amounts outstanding as of September 30, 2016.

*Sensitivities*

The following table presents the estimated potential effect on the fair values of these derivative instruments as of September 30, 2016, given a 100 bps decrease in the benchmark interest rate ($ in millions).

| | Change in Rate | Change in Fair Value |
|---|---|---|
| **Interest Rate Contracts** | | |
| Asia - KRW-CD-3200 | (100) bps | $ (1) |

**Item 4.** ***Controls and Procedures***

**Evaluation of Disclosure Controls and Procedures**

We maintain disclosure controls and procedures designed to ensure that information required to be disclosed in the reports that we file or submit under the Securities Exchange Act of 1934, as amended (the “Exchange Act”) is recorded, processed, summarized and reported within the time periods specified in the SEC’s rules and forms. Disclosure controls and procedures, as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act, include controls and procedures designed to ensure that information required to be disclosed in the reports we file or submit under the Exchange Act is accumulated and communicated to our management, including the Principal Executive Officer and the Principal Financial Officer, as appropriate, to allow timely decisions regarding required disclosure. Any system of controls, however well designed and operated, can provide only reasonable, and not absolute, assurance that the objectives of the system are met.

We have carried out an evaluation, with the participation of our Principal Executive Officer and Principal Financial Officer, of the effectiveness of the Company’s disclosure controls and procedures pursuant to Rule 13a-15 of the Exchange Act. Based upon such evaluation, management has concluded that the Company’s disclosure controls and procedures were effective as of September 30, 2016.

**Changes in Internal Control Over Financial Reporting**

There have been no changes in our internal control over financial reporting (as defined in Rule 13a-15(f) under the Exchange Act) during the most recently completed fiscal quarter that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

## PART II. OTHER INFORMATION

### Item 1. *Legal Proceedings*

We are a party to litigation incidental to our business from time to time. For additional information regarding litigation to which we are a party, see Note 16 — Commitments and Contingencies to our accompanying condensed consolidated financial statements.

### Item 1A. *Risk Factors*

See "Risk Factors" in Part I, Item 1A in our Annual Report on Form 10-K for the year ended March 31, 2016.

**Item 5.** ***Other Information***

On November 4, 2016, we delivered to the Administrative Agent for our ABL Revolver notice of our election to reduce the total commitment under the ABL Revolver from $1.2 billion to $1.0 billion, effective November 10, 2016.

**Item 6. *Exhibits***

| Exhibit No. | Description |
|---|---|
| 2.1 | Arrangement Agreement by and among Hindalco Industries Limited, AV Aluminum Inc. and Novelis Inc., dated as of February 10, 2007 (incorporated by reference to Exhibit 2.1 to our Current Report on Form 8-K filed on February 13, 2007) (File No. 001-32312)) |
| 3.1 | Restated Certificate and Articles of Amalgamation of Novelis Inc. (incorporated by reference to Exhibit 3.1 to our Quarterly Report on Form 10-Q filed on November 10, 2010 (File No. 001-32312)) |
| 3.2 | Certificate and Articles of Amalgamation of Novelis Inc., dated March 31, 2016 (incorporated by reference to Exhibit 3.2 to our Annual Report on Form 10-K filed on May 10, 2016 (File No. 001-32312)) |
| 3.3 | Novelis Inc. Amended and Restated Bylaws, adopted as of July 24, 2008 (incorporated by reference to Exhibit 3.2 to our Current Report on Form 8-K filed on July 25, 2008 (File No. 001-32312)) |
| 4.1 | Indenture relating to the 6.25% Senior Notes due 2024, dated August 29, 2016, between Novelis Corporation, as issuer, Novelis Inc., as guarantor, the subsidiary guarantors names on the signature page thereto and Regions Bank, as trustee (incorporated by reference to Exhibit 4.3 to our Current Report on Form 8-K filed on September 19, 2016 (File No. 001-32312)) |
| 4.2 | Indenture relating to the 5.875% Senior Notes due 2026, dated September 14, 2016, between Novelis Corporation, as issuer, Novelis Inc., as guarantor, the subsidiary guarantors named on the signature page thereto and Regions Bank, as trustee (incorporated by reference to Exhibit 4.1 to our Current Report on Form 8-K filed on September 19, 2016 (File No. 001-32312)) |
| 31.1 | Section 302 Certification of Principal Executive Officer |
| 31.2 | Section 302 Certification of Principal Financial Officer |
| 32.1 | Section 906 Certification of Principal Executive Officer |
| 32.2 | Section 906 Certification of Principal Financial Officer |
| 101.INS | XBRL Instance Document |
| 101.SCH | XBRL Taxonomy Extension Schema Document |
| 101.CAL | XBRL Taxonomy Extension Calculation Linkbase |
| 101.DEF | XBRL Taxonomy Extension Definition Linkbase |
| 101.LAB | XBRL Taxonomy Extension Label Linkbase |
| 101.PRE | XBRL Taxonomy Extension Presentation Linkbase |

## SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

| | |
|---|---|
| NOVELIS INC. | |
| By: | /s/ Devinder Ahuja |
| | Devinder Ahuja<br>Senior Vice President and Chief Financial Officer<br>(Principal Financial Officer and Authorized Officer) |
| By: | /s/ Stephanie Rauls |
| | Stephanie Rauls<br>Vice President, Finance and Controller<br>(Principal Accounting Officer) |

Date: November 7, 2016

## EXHIBIT INDEX

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| 101.SCH | XBRL Taxonomy Extension Schema Document |
| 101.CAL | XBRL Taxonomy Extension Calculation Linkbase |
| 101.DEF | XBRL Taxonomy Extension Definition Linkbase |
| 101.LAB | XBRL Taxonomy Extension Label Linkbase |
| 101.PRE | XBRL Taxonomy Extension Presentation Linkbase |

**Exhibit 31.1**

**Certification**

I, Steven Fisher, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Novelis Inc. (Novelis);

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

/s/ Steven Fisher

Steven Fisher
President and Chief Executive Officer
(Principal Executive Officer)

Date: November 7, 2016

**Exhibit 31.2**

**Certification**

I, Devinder Ahuja, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Novelis Inc. (Novelis);

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

/s/ Devinder Ahuja

Devinder Ahuja

Chief Financial Officer

(Principal Financial Officer)

Date: November 7, 2016

**Exhibit 32.1**

**Certification Pursuant to 18 U.S.C. Section 1350 as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002**

Pursuant to 18 U.S.C. Section 1350, the undersigned officer of Novelis Inc. (Novelis), hereby certifies that Novelis' Quarterly Report on Form 10-Q for the period ended September 30, 2016 (Report) fully complies with the requirements of Section 13(a) or Section 15(d), as applicable, of the Securities Exchange Act of 1934, as amended, and that the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of Novelis.

/s/ Steven Fisher

Steven Fisher
President and Chief Executive Officer
(Principal Executive Officer)

Date: November 7, 2016

The foregoing certification is being furnished solely pursuant to 18 U.S.C. Section 1350 and is not being filed as part of this Report.

**Exhibit 32.2**

**Certification Pursuant to 18 U.S.C. Section 1350 as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002**

Pursuant to 18 U.S.C. Section 1350, the undersigned officer of Novelis Inc. (Novelis), hereby certifies that Novelis' Quarterly Report on Form 10-Q for the period ended September 30, 2016 (Report) fully complies with the requirements of Section 13(a) or Section 15(d), as applicable, of the Securities Exchange Act of 1934, as amended, and that the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of Novelis.

/s/ Devinder Ahuja

Devinder Ahuja

Chief Financial Officer

(Principal Financial Officer)

Date: November 7, 2016

The foregoing certification is being furnished solely pursuant to 18 U.S.C. Section 1350 and is not being filed as part of this Report.