

RIO TINTO PLC
Form 11-K
June 29, 2010

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 11-K

(Mark One)

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

For the fiscal year ended December 31, 2009

or

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

For the transition period from _____ to _____.

Commission file number 001-10533

A. Full title of the plan and the address of the plan, if different from that of the issuer named below:

RIO TINTO AMERICA INC. SAVINGS PLAN

B. Name of the issuer of the securities held pursuant to the plan and the address of its principal executive office:

Rio Tinto plc
5 Aldermanbury Square
London EC2V 7HR
United Kingdom

RIO TINTO AMERICA INC. 401(k) SAVINGS PLAN
AND INVESTMENT PARTNERSHIP PLAN

Financial Statements and Supplemental Schedule

As of December 31, 2009 and 2008 and for the
Year Ended December 31, 2009

Together with Report of Independent Registered Public Accounting Firm

RIO TINTO AMERICA INC. 401(k) SAVINGS PLAN
AND INVESTMENT PARTNERSHIP PLAN
Table of Contents

| | Page |
|---|---------|
| Report of Independent Registered Public Accounting Firm | 3 |
| Financial Statements: | |
| Statements of Assets Available for Benefits as of December 31, 2009 and 2008 | 4 |
| Statement of Changes in Assets Available for Benefits for the Year Ended December 31, 2009 | 5 |
| Notes to Financial Statements | 6 – 21 |
| Supplemental Schedule: | |
| Schedule H, Part IV, Line 4i – Schedule of Assets (Held at End of Year) as of December 31, 2009 | 22 – 23 |

All other schedules required by Section 2520.103-10 of the Department of Labor's Rules and Regulations for Reporting and Disclosure under the Employee Retirement Income Security Act of 1974 have been omitted because they are not applicable to the Rio Tinto America Inc. 401(k) Savings Plan and Investment Partnership Plan.

REPORT OF INDEPENDENT
REGISTERED PUBLIC ACCOUNTING FIRM

The Rio Tinto America Benefits Governance Committee
Rio Tinto America Inc. 401(k) Savings Plan
and Investment Partnership Plan

We have audited the accompanying statements of assets available for benefits of the Rio Tinto America Inc. 401(k) Savings Plan and Investment Partnership Plan (the Plan) as of December 31, 2009 and 2008 and the related statement of changes in assets available for benefits for the year ended December 31, 2009. These financial statements are the responsibility of the Plan's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Plan's internal control over financial reporting. Accordingly, we express no such opinion. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the assets available for benefits of the Rio Tinto America Inc. 401(k) Savings Plan and Investment Partnership Plan as of December 31, 2009 and 2008, and the changes in assets available for benefits for the year ended December 31, 2009, in conformity with U.S. generally accepted accounting principles.

Our audits of the financial statements were performed for the purpose of forming an opinion on the basic financial statements taken as a whole. The supplemental schedule of assets (held at end of year) as of December 31, 2009 is presented for the purpose of additional analysis and is not a required part of the basic financial statements, but is supplementary information required by the United States Department of Labor's Rules and Regulations for Reporting and Disclosure under the Employee Retirement Income Security Act of 1974. The supplemental schedule is the responsibility of the Plan's management and has been subjected to the auditing procedures applied in the audit of the basic financial statements and, in our opinion, is fairly stated in all material respects in relation to the basic financial statements taken as a whole.

/s/ Tanner LC
Salt Lake City, Utah
June 29, 2010

RIO TINTO AMERICA INC. 401(k) SAVINGS PLAN
AND INVESTMENT PARTNERSHIP PLAN
Statements of Assets Available for Benefits

| | December 31, | |
|---|---------------|---------------|
| | 2009 | 2008 |
| Assets | | |
| Investments, at fair value | \$480,350,270 | \$372,688,968 |
| Receivables: | | |
| Employee contributions | 325,943 | - |
| Employer contributions | 370,244 | 1,296 |
| Total receivables | 696,187 | 1,296 |
| Assets available for benefits, at fair value | 481,046,457 | 372,690,264 |
| Adjustment from fair value to contract value for fully benefit-responsive investment contracts | 4,987,707 | 11,996,107 |
| Assets available for benefits | \$486,034,164 | \$384,686,371 |

See accompanying notes to financial statements. 4

RIO TINTO AMERICA INC. 401(k) SAVINGS PLAN
AND INVESTMENT PARTNERSHIP PLAN
Statement of Changes in Assets Available for Benefits

Year Ended December 31, 2009

| | |
|--|--------------------|
| Additions to assets attributed to: | |
| Investment income: | |
| Net appreciation in fair value of investments | \$93,486,113 |
| Interest and dividends | 13,736,040 |
| Total investment income | 107,222,153 |
| Contributions: | |
| Employee | 22,813,067 |
| Employer | 22,310,887 |
| Total contributions | 45,123,954 |
| Transfers: | |
| From the U.S. Borax Inc. 401(k) Plan for Hourly Employees | 213,578 |
| From the Kennecott Corporation Savings Plan for Hourly Employees | 243,445 |
| Total transfers | 457,023 |
| Total additions | 152,803,130 |
| Deductions from assets attributed to: | |
| Benefits paid to participants | 51,356,735 |
| Administrative expenses | 98,602 |
| Total deductions | 51,455,337 |
| Net increase in assets available for benefits | 101,347,793 |
| Assets available for benefits: | |
| Beginning of year | 384,686,371 |
| End of year | \$486,034,164 |

See accompanying notes to financial statements. 5

RIO TINTO AMERICA INC. 401(k) SAVINGS PLAN
AND INVESTMENT PARTNERSHIP PLAN
Notes to Financial Statements

1. Description of the Plan
- The following brief description of the Rio Tinto America Inc. 401(k) Savings Plan and Investment Partnership Plan (the Plan) is provided for general information purposes only. Participants should refer to the Plan document and summary plan description for more complete information.

General

The Plan is a defined contribution plan covering (1) all non-represented employees of Rio Tinto America Inc. and its affiliates (collectively, the Company or the Employer), as defined in the Plan document, and (2) employees covered by a collective bargaining agreement that provides for Plan participation. All eligible full-time employees of the Company can participate in the Plan immediately upon employment. Temporary and part-time employees are eligible after completing 1,000 hours of service during a 12-month period. Rio Tinto America Inc. is an indirect wholly owned subsidiary of Rio Tinto plc (the Parent). The Plan was created effective January 1, 2003, by a merger of the Kennecott Savings and Investment Plan, the U.S. Borax Inc. Thrift Plan for Salaried Employees, and the Luzenac America Inc. Investment Savings Plan. The Plan is intended to be a qualified retirement plan under the Internal Revenue Code (IRC) and is subject to the provisions of the Employee Retirement Income Security Act of 1974 (ERISA), as amended.

Contributions

Each year, participants may elect, under a salary reduction agreement, to contribute to the Plan an amount not less than 1% and not more than 50% of their eligible compensation on a before-tax basis through payroll deductions. Contributions are limited by the IRC, which established a maximum contribution of \$16,500 (\$22,000 for participants over age 50) for the year ended December 31, 2009. Participants may also elect to make an after-tax contribution not less than 1% and not more than 50% of their eligible compensation. Total before-tax and after-tax contributions cannot exceed 50% of each participant's eligible compensation. Participant contributions are recorded in the period during which the amounts are withheld from participant earnings. Participants may also contribute amounts representing distributions from other qualified defined benefit or defined contribution plans.

Company Matching

The Company matches participants' contributions to the Plan at 100%, up to the first 6% of their eligible compensation, for all locations other than the represented hourly employees of Luzenac America Inc. Participants are immediately vested in their contributions and Company matching contributions plus actual earnings thereon.

RIO TINTO AMERICA INC. 401(k) SAVINGS PLAN
AND INVESTMENT PARTNERSHIP PLAN
Notes to Financial Statements
Continued

1. Description of
the Plan
Continued

Company Matching - Continued

Investment Partnership Plan

Effective April 1, 2007 for new participants in the Plan (including new hires and transfers) and October 1, 2007 for current electing employees, the Company contributes 6% of eligible compensation (which includes ½ of compensation earned under a short-term bonus program) up to the Social Security Wage Base (\$106,800 for 2009) and 11.7% of eligible compensation over the Social Security Wage Base. For communication purposes, the Company refers to this Company contribution as the Investment Partnership Plan (IPP). To be eligible for the IPP, current employees as of March 31, 2007, were required to elect not to continue to be credited with future benefit service under the Company-sponsored defined benefit pension plan, the Rio Tinto America Inc. Retirement Plan. Participants are not required to contribute to the Plan to receive IPP contributions. Participants are vested in IPP contributions based upon the following schedule:

| Completed Years of Vesting Service | Vested % |
|---------------------------------------|----------|
| One year | 33.33% |
| Two years | 66.67% |
| Three years | 100.00% |

Effective November 20, 2009, as a result of the initial public offering (IPO) of Cloud Peak Energy stock, the affected participants who terminated employment with the Company were 100% vested in the Company IPP contributions.

Effective October 1, 2009, as a result of the sale of the Jacobs Ranch Mine including Jacobs Ranch Coal LLC by Rio Tinto Sage LLC, the affected participants who terminated employment with the Company were 100% vested in the Company IPP contributions.

Effective April 15, 2008, as a result of the sale of the Kennecott Greens Creek Mining Company and the Kennecott Juneau Mining Company, the affected participants who terminated employment with the Company were 100% vested in the Company IPP contributions.

RIO TINTO AMERICA INC. 401(k) SAVINGS PLAN
AND INVESTMENT PARTNERSHIP PLAN
Notes to Financial Statements
Continued

1. Description of
the Plan
Continued

Contributions – Continued

The Company matches the participants' contributions to the Plan for the represented hourly employees of Luzenac America, Inc., based on the following:

Hourly employees of Luzenac America, Inc. at the Three Forks Mill who are represented by the United Cement, Lime, Gypsum and Allied Workers' Division of the International Brotherhood of Boilermakers (Local Union D-239) who made contributions after August 1, 2006 receive a match of 65%, up to the first 6% of eligible compensation; and

Hourly employees of Luzenac America, Inc. at the Windsor Mine who are represented by the United Cement, Lime, Gypsum and Allied Workers' Division of the International Brotherhood of Boilermakers (Local Lodge No. D449)

(a) who made contributions after May 12, 2004 and prior to May 12, 2006 received a match of 40%, up to the first 6% of eligible compensation; and

(b) who made contributions on or after May 12, 2006 received a match of 45% up to the first 6% of eligible compensation.

The represented hourly employees of Luzenac America, Inc. are not eligible for the IPP Company contributions. Matching contributions are recorded on the date the related participant contributions are withheld.

Participant Accounts

Individual accounts are maintained for each Plan participant. Each participant's account is credited with the participant's contributions, the Company's matching contributions, Company's IPP contributions (if applicable), and an allocation of the Plan's earnings, and is charged with withdrawals and an allocation of the Plan's losses and administrative expenses. Allocations are based on participant earnings or account balances, as defined. The benefit to which a participant is entitled is the benefit that can be provided from the participant's vested account.

Participant-Directed Options for Investments

Participants direct the investment of their contributions, Company matching contributions, and Company's IPP contributions (if applicable) into various investment options offered by the Plan. Investment options include mutual funds, a common collective trust, common stock of the Parent in the form of American Depository

Receipts (ADRs), and a stable value fund consisting of a money market fund, a common collective trust and synthetic guaranteed investment contracts.

RIO TINTO AMERICA INC. 401(k) SAVINGS PLAN
AND INVESTMENT PARTNERSHIP PLAN
Notes to Financial Statements
Continued

- | | |
|---|---|
| 1. Description of the Plan Continued | <p>Payment of Benefits On termination of service due to death, disability, or retirement, participants or their beneficiaries may elect to receive a lump-sum distribution or annual, semi-annual, quarterly or monthly installments in an amount equal to the value of the participants' vested interests in their accounts. Under certain circumstances, participants may withdraw their contributions prior to the occurrence of these events.</p> <p>Transfers Certain U.S. Subsidiaries of Rio Tinto plc also sponsor other 401(k) plans that cover represented employees. If those employees are changed from union to non-union status during the year, their account balances are transferred from those union plans to this Plan. For the year ended December 31, 2009, transfers into the Plan totaled \$457,023. For the year ended December 31, 2009, transfers from the U.S. Borax Inc. 401(k) Plan for Hourly Employees totaled \$213,578 and transfers from the Kennecott Corporation Savings Plan for Hourly Employees totaled \$243,445.</p> <p>Forfeited Accounts Terminated participant non-vested account balances of the IPP are transferred to the forfeiture account. During the year ended December 31, 2009, \$42,000 in forfeitures were used to pay expenses of the Plan. Forfeitures were \$401,586 for the year ended December 31, 2009. Interest and dividends attributable to the forfeitures were \$9,477 for the year ended December 31, 2009. As of December 31, 2009 and 2008, the balance in the forfeiture account was \$687,746 and \$318,683, respectively.</p> |
| 2. Summary of Significant Accounting Policies | <p>Basis of Presentation The financial statements of the Plan have been prepared on the accrual basis of accounting in accordance with U.S. generally accepted accounting principles.</p> |
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RIO TINTO AMERICA INC. 401(k) SAVINGS PLAN
AND INVESTMENT PARTNERSHIP PLAN
Notes to Financial Statements
Continued

2. Summary of
Significant
Accounting
Policies
Continued

Financial Accounting Standards Board Staff Position

The Financial Accounting Standards Board (FASB) Accounting Standards Codification (ASC) 962 (formerly known as FASB staff position No. AAG INV-1 and Statement of Position (SOP) 94-4-1, Reporting of Fully Benefit-Responsive Investment Contracts Held by Certain Investment Companies Subject to the AICPA Investment Company Guide and Defined-Contribution Health and Welfare and Pension Plans (the FSP), requires investment contracts held by a defined-contribution plan to be reported at fair value. However, contract value is the relevant measurement attribute for that portion of the assets available for benefits of a defined-contribution plan attributable to fully benefit-responsive investment contracts because contract value is the amount participants would receive if they were to initiate permitted transactions under the terms of the plan. As required by the FSP, the statement of assets available for benefits presents the fair value of the investment contracts as well as the adjustment of the fully benefit-responsive investment contracts from fair value to contract value. The statement of changes in assets available for benefits is prepared on a contract value basis.

Use of Estimates

The preparation of the Plan's financial statements in conformity with U.S. generally accepted accounting principles requires Plan management to make estimates and assumptions that affect the reported amounts of assets available for benefits at the date of the financial statements, the changes in assets available for benefits during the reporting period and, when applicable, the disclosures of contingent assets and liabilities at the date of the financial statements. Actual results could differ from those estimates.

Risks and Uncertainties

The Plan provides for investments in securities that are exposed to various risks, such as interest rate, currency exchange rate, credit and overall market fluctuation. Due to the level of risk associated with certain investment securities, it is reasonably possible that changes in the values of investment securities will occur in the near term and that such changes could materially affect participants' account balances and the amounts reported in the Statements of Assets Available for Benefits.

RIO TINTO AMERICA INC. 401(k) SAVINGS PLAN
AND INVESTMENT PARTNERSHIP PLAN
Notes to Financial Statements
Continued

2. Summary of
Significant
Accounting
Policies
Continued

Investment Valuation and Income Recognition

The Plan's investments in mutual funds are valued at quoted market prices, which represent the net asset values of units held by the Plan at year end. Plan investments in common stock are stated at fair value based on quoted market prices. Common collective trusts are valued at the asset value per unit as determined by each common collective trust as of the valuation date. The fair value of the Plan's interest in the Dwight Stable Value Fund (see detail of investments included in this fund in Note 4) is generally based upon the per-share net asset values of the underlying securities.

Purchases and sales of securities are recorded on a trade-date basis. Interest income is recorded on an accrual basis. Dividends are recorded on the ex-dividend date.

The net appreciation in the fair value of investments, which includes realized gains (losses) and unrealized appreciation (depreciation) on those investments, is presented in the Statement of Changes in Assets Available for Benefits of the Plan, and totaled \$93,486,113 for the year ended December 31, 2009 (see Note 7).

Payments of Benefits

Benefits are recorded when paid by the Plan.

Administrative Expenses

The Company pays the majority of costs and expenses incurred in administering the Plan. The Company provides accounting and other services for the Plan at no cost to the Plan.

The Plan has several fund managers that manage the investments held by the Plan. Fees for investment fund management services are included as a reduction of the return earned on each fund. In addition, during the year ended December 31, 2009, the Company paid all investment consulting fees related to these investment funds.

Transaction costs associated with the purchase or sale of Rio Tinto plc ADRs are paid by the participants.

RIO TINTO AMERICA INC. 401(k) SAVINGS PLAN
AND INVESTMENT PARTNERSHIP PLAN
Notes to Financial Statements
Continued

2. Summary of
Significant
Accounting
Policies
Continued

Participant Loans

Participants may borrow from the Plan up to a maximum of \$50,000 or 50% of their account balances, whichever is less. Each loan is secured by the balance in the participant's account and bears interest at a rate commensurate with prevailing rates at the time funds are borrowed, as determined by the Plan Administrator. Loans originated during the year ended December 31, 2009 have interest rates set at prime plus one percent. A general-purpose loan must be repaid within 5 years. A loan for a primary residence must be repaid within 20 years. Principal and interest are paid ratably through payroll deductions.

Subsequent Events

The Plan has evaluated events occurring between the end of its most recent fiscal year and the date the financial statements were available for issue.

3. Recent
Accounting
Pronouncements

In September 2009, the FASB issued ASU No. 2009-12, Fair Value Measurements and Disclosures (Topic 820): Investments in Certain Entities That Calculate Net Asset Value per Share (or Its Equivalent), which provides guidance regarding fair value measurement of investments in certain entities that calculate net asset value per share (or its equivalent). This update applies to investments that do not have a readily determinable fair value and are held by an entity that is required to report investment assets at fair value. This update creates a practical expedient to measure the fair value of such investments on the basis of the net asset value per share (or its equivalent) and requires disclosures by major category of investments about the attributes of investments, such as the nature of any restrictions on the investor's ability to redeem its investments at the measurement date, any unfunded commitments, and the investment strategies of the investees. The Plan's adoption of this update did not have a material effect on the Plan's financial statements.

In January 2010, the FASB issued ASU No. 2010-06, Fair Value Measurements and Disclosures (Topic 820): Improving Disclosures about Fair Value Measurements (ASU 2010-06). ASU 2010-06 amends Subtopic 820-10 to require disclosure of the transfers in and out of Levels 1 and 2. The update also requires additional information for Level 3 related to purchases, sales, issuances and settlements, and requires more detailed disclosure regarding valuation techniques and inputs. ASU 2010-06 as it relates to

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Levels 1 and 2 is effective for fiscal years and interim periods beginning after December 15, 2009. Requirements relating to Level 3 are effective for fiscal years and interim periods beginning after December 15, 2010. The Plan adopted the current effective provisions of ASU 2010-06 during January 2010, and its application is not expected to have a material impact on the Plan's financial statements.

RIO TINTO AMERICA INC. 401(k) SAVINGS PLAN
AND INVESTMENT PARTNERSHIP PLAN
Notes to Financial Statements
Continued

4. Fully Benefit-Responsive Investment Contracts
- The Plan's investments include the Dwight Stable Value Fund. The Dwight Stable Value Fund is invested in the following:
- A money market fund (TBC Pooled Daily Liquidity Fund);
 - A fully benefit-responsive common collective trust (the SEI Stable Asset Fund); and
 - Fully benefit-responsive synthetic guaranteed investment contracts (GICs) as follows:
 - a. Dwight Intermediate Core Plus Fund, no specified maturity date, 2.64%;
 - b. Dwight Managed Target 2, no specified maturity date, 2.64%;
 - c. Dwight Managed Target 5, no specified maturity date, 2.64%;
 - d. Dwight Intermediate Core Plus Fund, no specified maturity date, 2.77%;
 - e. Dwight Managed Target 2, no specified maturity date, 2.77%; and
 - f. Dwight Managed Target 5, no specified maturity date, 2.77%

Synthetic GICs provide for a guaranteed return on principal over a specified period of time through fully benefit-responsive wrap contracts, issued by a third party, which are secured by underlying assets. The Plan's wrap contracts have credit ratings ranging from AA+ to AAA. The assets underlying the wrap contracts include diversified bond portfolios. These bond portfolios include investments in securities with contractual cash flows, such as asset backed securities, collateralized mortgage obligations and commercial mortgage backed securities, including securities backed by subprime mortgage loans. The value, liquidity and related income of these securities are sensitive to changes in economic conditions, including real estate value, delinquencies or defaults, or both, and may be adversely affected by shifts in the market's perception of the issuers and changes in interest rates.

RIO TINTO AMERICA INC. 401(k) SAVINGS PLAN
AND INVESTMENT PARTNERSHIP PLAN
Notes to Financial Statements
Continued

4. Fully Benefit-
Responsive
Investment
Contracts
Continued

The crediting interest rates of the contracts are based on agreed-upon formulas with the issuing third-party, as defined in the contract agreement, but cannot be less than zero. The contract or crediting interest rates for the synthetic GICs are typically reset quarterly and are based on capital market developments, the performance of the assets backing the contract, and the expected and actual contributions and withdrawals of all of the plans participating in the contract. These contracts typically provide that realized and unrealized gains and losses on the underlying assets are not reflected immediately in the assets of the fund. Realized and unrealized gains and losses are amortized, usually over the time to maturity or the duration of the underlying investments, through adjustments to the future interest crediting rate. Additional inputs used to determine the crediting interest rates include each contract's portfolio market value, current yield-to-date maturity, duration, and fair value relative to contract value.

The fair value of the investment contracts relative to the contract value are reflected in the Statements of Assets Available for Benefits as "adjustment from fair value to contract value for fully benefit-responsive investment contracts" (adjustment). If the adjustment is positive, this indicates that the contract value is greater than the fair value. The embedded losses will be amortized in the future through a lower interest crediting rate than would otherwise be the case. If the adjustment is negative, this indicates that the contract value is less than the fair value. The embedded gains will cause the future interest crediting rate to be higher than it otherwise would have been. A positive adjustment is reflected in the Plan's Statements of Assets Available for Benefits as of December 31, 2009 and 2008 in the amount of \$4,987,707 and \$11,996,107, respectively.

These wrap contracts provide benefit withdrawals and investment exchanges at the full contract value of the synthetic contracts (principal plus accrued interest) notwithstanding the actual market value of the underlying investments (fair value plus accrued interest). There are no reserves against contract value for credit risk of the contract issuer or otherwise.

RIO TINTO AMERICA INC. 401(k) SAVINGS PLAN
AND INVESTMENT PARTNERSHIP PLAN
Notes to Financial Statements
Continued

4. Fully Benefit-Responsive Investment Contracts Continued

Certain events may limit the ability of the Plan to transact at contract value with the issuer of fully benefit-responsive investment contracts. Such events include the following: (1) amendments to the Plan documents (including complete or partial plan termination or merger with another plan), (2) bankruptcy of the Company or other Company events (for example, divestiture or spin-off of a subsidiary) that cause a significant withdrawal from the Plan, or (3) the failure of the trust to qualify for exemption from federal income taxes or any required prohibited transaction exemption under ERISA, as amended. With the exception of announced efforts on the part of the Company to market the sale of certain subsidiaries, the Plan Administrator does not believe that the occurrence of any such event, which would limit the Plan's ability to transact at contract value with participants, is probable. The contracts provide that withdrawals associated with certain events which are not in the ordinary course of fund operations, and are determined by the issuer to have a material adverse effect on the issuer's financial interest, may be paid at other than contract value.

Absent the events described in the preceding paragraph, the guaranteed investment contracts do not permit the issuers to terminate the synthetic agreements prior to the scheduled maturity dates.

Average duration for all investment contracts was 3.09 and 2.80 years as of December 31, 2009 and 2008, respectively. Average yield data for all fully benefit-responsive investment contracts for the years ended December 31, 2009 and 2008 were as follows:

| | 2009 | 2008 |
|---|-------|-------|
| Average Yields: | | |
| Based on actual earnings | 3.35% | 5.71% |
| Based on interest rate credited to participants | 2.52% | 4.09% |

5. Party-in-Interest Transactions

Certain Plan investments are managed by Mercer Human Resources, the Plan trustee; therefore, these transactions are exempt party-in-interest transactions. Fees paid by the Plan for investment management services were included as a reduction of the return earned on each fund.

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Transactions associated with Rio Tinto plc ADRs are considered exempt party-in-interest transactions because Rio Tinto plc is the Parent of the Company. As of December 31, 2009 and 2008, the Plan held 221,436 and 209,588 shares, respectively, of common stock of Rio Tinto plc. During the year ended December 31, 2009, the Plan recorded dividend income of \$5,406,833 related to the Rio Tinto plc ADRs.

RIO TINTO AMERICA INC. 401(k) SAVINGS PLAN
AND INVESTMENT PARTNERSHIP PLAN
Notes to Financial Statements
Continued

6. Global
Securities
Lending
Program

The Plan participates in the State Street Bank and Trust Company S&P 500 Flagship Securities Lending Series C Fund (the Fund), a common collective trust. The Fund invests in certain collective investment funds that participate in the State Street Global Securities Lending Program (Lending Funds). Under the State Street Global Securities Lending Program, securities held by Lending Funds are loaned by State Street Bank, as agent, to certain brokers and other financial institutions (the Borrowers). The Borrowers provide cash, securities, or letters of credit as collateral against loans in an amount at least equal to 100% of the fair value of the loaned securities. The Borrowers are required to maintain the collateral at not less than 100% of the fair value of the loaned securities. Cash collateral provided by the Borrowers may be invested in State Street Bank and Trust Company Collateral Funds (Cash Collateral Funds). The Lending Funds invested cash provided by the Borrowers into the State Street Bank and Trust Company Quality Trust for SSgA Funds.

Risks and Indemnification

State Street Bank, as lending agent, indemnifies Lending Funds for replacement of any loaned securities (or, in certain circumstances, return of equivalent cash value) due to Borrower default on a security loan. Lending Fund participants, however, bear the risk of loss with respect to the investment of collateral.

Withdrawal Safeguards

From time to time, the Trustee of the Lending Funds may exercise its rights in order to protect all participants in the State Street Bank securities lending funds. In an effort to better ensure safety of principal and better maintain adequate liquidity, as well as achieve favorable returns for all securities lending program participants, State Street Bank has temporarily implemented withdrawal safeguards on full or partial redemptions from certain securities lending funds.

The objective of these withdrawal safeguards is to protect the interest of all participants, while providing the maximum level of liquidity that can be prudently made available to all participants. These withdrawal safeguards permit redemptions resulting from ordinary course activity, subject to certain thresholds. Ordinary course activity also may include periodic participant rebalancing of their investment portfolio between Lending Funds and other State Street Bank collective investment

funds. Requests for redemptions above these withdrawal safeguards may result in proceeds consisting of cash, units of other State Street Bank collective investment funds, units of Cash Collateral Funds that will be converted into units of a liquidating trust, or a combination thereof. The Trustee continues to monitor market conditions and evaluates the need for withdrawal safeguards, as appropriate.

RIO TINTO AMERICA INC. 401(k) SAVINGS PLAN
AND INVESTMENT PARTNERSHIP PLAN
Notes to Financial Statements
Continued

6. Global
Securities
Lending
Program
Continued

Investment in Cash Collateral Fund Valuation

Management of the Lending Funds regularly reviews the performance of the Cash Collateral Funds and the variation between their per unit fair values and \$1.00. The Cash Collateral Funds primarily utilize quotations from independent pricing services, quotations from bond dealers and information with respect to bond and note transactions (pricing service information) to determine the fair value of its investments. Such pricing service information may also consist of quotations derived from valuation models or matrix pricing. As of December 31, 2009, the per unit fair value was \$0.98 for the State Street Bank and Trust Company Quality Trust for SSgA Funds.

For the purposes of determining transaction price for issuances and redemptions of Lending Fund units, management of the Lending Funds also evaluates additional inputs to the fair value of the Lending Funds' investments in the Cash Collateral Funds, including among other things current market conditions, credit quality, liquidity of the Cash Collateral Funds and the assessed probability of incurring a realized loss on Cash Collateral Fund Assets. Additionally, management of the Lending Funds evaluates the qualitative aspects of the State Street Global Securities Lending Program, including the historical performance of State Street Bank as lending agent, the Cash Collateral Funds' investment strategy and past performance, and the expected continuing transactions price of the Cash Collateral Funds at \$1.00 per unit.

Accordingly, for purposes of calculating the transaction price of the Lending Funds, management of the Lending Funds has valued its investments in Cash Collateral Funds at their per unit transaction price of \$1.00. Management of the Lending Funds will continue to review the Lending Funds participation in the State Street Global Securities Lending Program, including the appropriateness of the fair value of the Lending Funds' investments in the Cash Collateral Funds at \$1.00 per unit for transaction purposes or, alternatively, at a lower per unit fair value.

RIO TINTO AMERICA INC. 401(k) SAVINGS PLAN
AND INVESTMENT PARTNERSHIP PLAN
Notes to Financial Statements
Continued

7. Investments The Plan's investments, stated at fair value, that represented five percent or more of the Plan's assets available for benefits as of December 31, 2009 and 2008 are as follows:

| | 2009 | 2008 |
|---|-------------|--------------|
| Assets of the Dwight Stable Value Fund: | | |
| TBC Pooled Employee Daily Liquidity Fund | \$ 282 | \$ 3,509,287 |
| Monumental Life Insurance Company Synthetic GICs | 63,239,352 | 58,924,901 |
| State Street Bank & Trust Synthetic GICs | 49,254,847 | 45,522,709 |
| SEI Stable Asset Fund | 24,551,527 | 27,700,168 |
| | 137,046,008 | 135,657,065 |
| Dodge and Cox Stock Fund | 51,259,273 | 39,897,135 |
| PIMCO Total Return Fund | 49,965,507 | 39,213,406 |
| State Street Bank and Trust Company S&P 500 Flagship Securities Lending Series C Fund | 34,015,439 | 26,939,530 |
| Harbor Capital Appreciation Fund | 37,112,488 | 26,312,796 |
| American Funds Europacific Growth | 28,177,501 | 20,012,629 |
| Rio Tinto plc ADRs | 47,695,057 | 18,634,474 |
| Artisan Mid Cap Fund | 25,298,771 | 16,175,002 |

During the year ended December 31, 2009, the Plan's investments (including gains and losses on investments bought and sold, as well as held during the year) appreciated in fair value as follows:

| | |
|--------------------------|--------------|
| Mutual Funds | \$57,041,953 |
| Common Stock | 28,763,253 |
| Common collective trusts | 7,680,907 |
| Net appreciation | \$93,486,113 |

RIO TINTO AMERICA INC. 401(k) SAVINGS PLAN
AND INVESTMENT PARTNERSHIP PLAN
Notes to Financial Statements
Continued

7. Investments
Continued

Authoritative guidance establishes a hierarchy for inputs used in measuring fair value that maximizes the use of observable inputs and minimizes the use of unobservable inputs by requiring that the most observable inputs be used when available. Observable inputs are market inputs participants would use in valuing the asset or liability and are developed based on market data obtained from sources independent of the Company. Unobservable inputs are inputs that reflect the Company's assumptions about the factors market participants would use in valuing the asset or liability. The guidance establishes three levels of inputs that may be used to measure fair value:

Level 1: Quoted prices in active markets for identical assets or liabilities.

Level 2: Observable inputs other than Level 1 that can be corroborated by observable market data.

Level 3: Unobservable inputs supported by little or no market activity, requiring significant management judgment or estimation for the determination of fair value.

The following table summarizes the assets or liabilities carried at fair value by fair value hierarchy level, as described above, as of December 31:

2009

| Description | Level 1 | Level 2 | Level 3 | Total |
|---|-------------|-------------|------------|-------------|
| Money market fund | \$ 90,147 | \$ - | \$ - | \$ 90,147 |
| Common collective trusts | - | 58,566,966 | - | 58,566,966 |
| Mutual funds | 251,503,240 | - | - | 251,503,240 |
| Synthetic guaranteed investment contracts | - | 112,494,199 | - | 112,494,199 |
| Common stock | 47,695,057 | - | - | 47,695,057 |
| Participant loans | - | - | 10,000,661 | 10,000,661 |

| | | | |
|----------------|----------------|---------------|----------------|
| \$ 299,288,444 | \$ 171,061,165 | \$ 10,000,661 | \$ 480,350,270 |
|----------------|----------------|---------------|----------------|

RIO TINTO AMERICA INC. 401(k) SAVINGS PLAN
AND INVESTMENT PARTNERSHIP PLAN
Notes to Financial Statements
Continued

7. Investments
Continued

| 2008 | | | | |
|---|----------------|----------------|---------------|----------------|
| Description | Level 1 | Level 2 | Level 3 | Total |
| Money market fund | \$ 3,509,631 | \$ - | \$ - | \$ 3,509,631 |
| Common collective trusts | - | 54,639,698 | - | 54,639,698 |
| Mutual funds | 180,973,803 | - | - | 180,973,803 |
| Synthetic guaranteed investment contracts | - | 104,447,610 | - | 104,447,610 |
| Common stock | 18,634,474.00 | - | - | 18,634,474 |
| Participant loans | - | - | 10,483,752 | 10,483,752 |
| | \$ 203,117,908 | \$ 159,087,308 | \$ 10,483,752 | \$ 372,688,968 |

The following is a reconciliation of the 2009 investments in which significant unobservable inputs (Level 3) were used in determining fair value:

| Participant Loans | Amount |
|-----------------------------------|---------------|
| Beginning balance January 1, 2009 | \$ 10,483,752 |
| Issuances | 5,463,318 |
| Repayments and settlements | (5,946,409) |
| Ending Balance, December 31, 2009 | \$ 10,000,661 |

8. Plan
Termination

Although it has not expressed any intention to do so, the Company has the right under the Plan to discontinue its contributions at any time and to terminate the Plan subject to the provisions set forth in ERISA.

If the Plan is terminated in accordance with the terms described in the preceding paragraph, each participant's account shall become fully vested and nonforfeitable and distribution of Plan assets shall be made as directed by the Plan Administrator.

9. Income Tax

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Status

The Plan does not have a determination letter from the Internal Revenue Service informing it that the Plan and related trust are designed in accordance with the applicable requirements of the Internal Revenue Code. However, the Plan Administrator and the Plan's legal counsel believe that the Plan is currently designed and being operated in compliance with the applicable requirements of the Internal Revenue Code. Therefore, no provision for income taxes has been included in the Plan's financial statements.

RIO TINTO AMERICA INC. 401(k) SAVINGS PLAN
AND INVESTMENT PARTNERSHIP PLAN
Notes to Financial Statements
Continued

10. Reconciliation of Financial Statements to Form 5500 The following is a reconciliation of assets available for benefits as presented in the financial statements as of December 31, 2009 and 2008 to the Form 5500:

| | 2009 | 2008 |
|--|----------------|----------------|
| Assets available for benefits as presented in the financial statements | \$ 486,034,164 | \$ 384,686,371 |
| Adjustment from contract value to fair value | (4,987,707) | (11,996,107) |
| Assets available for benefits as presented in Form 5500 | \$ 481,046,457 | \$ 372,690,264 |

The following is a reconciliation of changes in net assets available for benefits reported in the financial statements to the Form 5500 for the year ended December 31, 2009:

| | 2009 |
|--|----------------|
| Increase in assets available for benefits reported in the financial statements | \$ 101,347,793 |
| Add adjustment from contract value to fair value for fully benefit-responsive investment contracts for 2008 | 11,996,107 |
| Subtract adjustment from contract value to fair value for fully benefit-responsive investment contracts for 2009 | (4,987,707) |
| Increase in assets available for benefits reported in the Form 5500 | \$ 108,356,193 |

11. Subsequent Event Plan Participants who were impacted by the Cloud Peak IPO and divested interests in the Dwight Stable Value Fund (the "SVF") were subject to a market value adjustment. This is largely attributable to the extraordinary market conditions which have existed over the last year or so. Per the SVF agreement, when portions of the SVF were early liquidated to pay benefits as a result of the IPO transaction, and the market value of the SVF was less than its book value, Participants who liquidated their investment in the SVF received a benefit distribution from the Plan at market value (as determined

from time to time) instead of book value.

RIO TINTO AMERICA INC. 401(k) SAVINGS PLAN
AND INVESTMENT PARTNERSHIP PLAN

Employer Identification Number: 11-3359689

Plan Number: 002

Schedule H, Part IV, Line 4i

Schedule of Assets (Held at End of Year)

December 31, 2009

| (a) Party in Interest | (b) Identity of Issue | (c) Description of Investment | Number of Units | (d) Cost | (e) Current Value |
|-----------------------------|---|--|--------------------|-------------|-------------------------|
| | | Money Market Fund: | | | |
| | Mellon Bank | TBC Pooled Employee Daily Liquidity Fund | 282 | ** \$ | 282 |
| | | Common Collective Trusts: | | | |
| | SEI Investments | SEI Stable Asset Fund | 24,551,527 | ** | 24,551,527 |
| | State Street Bank & Trust Company | State Street Bank and Trust Company S&P 500 Flagship Securities | | | |
| | | Lending Series C Fund | 1,619,937 | ** | 34,015,439 |
| | | Total | | | 58,566,966 |
| | | Common Collective Trusts | | | |
| | | Mutual Funds: | | | |
| | Dodge and Cox | Dodge and Cox Stock Fund | 533,173 | ** | 51,259,273 |
| | PIMCO | PIMCO Total Return Fund | 4,626,436 | ** | 49,965,507 |
| | Harbor | Harbor Capital Appreciation Fund | 1,125,644 | ** | 37,112,488 |
| | American | American Funds Europacific Growth | 736,089 | ** | 28,177,501 |
| | Artisan | Artisan Mid Cap Fund | 989,780 | ** | 25,298,771 |
| | Dodge and Cox | Dodge & Cox International Fund | 623,675 | ** | 19,864,044 |
| | UAM Trust Company | UAM/ICM Small Company Fund | 559,129 | ** | 13,844,032 |
| | Wells Fargo | Wells Fargo Advantage C&B Mid Cap Value Fund | 807,335 | ** | 10,899,019 |
| | Blackrock | Blackrock Small Cap Growth Equity | 626,438 | ** | 12,221,799 |
| | JP Morgan | JP Morgan Investor Balanced Fund | 252,498 | ** | 2,860,806 |
| | | Total | | \$ | 251,503,240 |
| | | Mutual Funds | | | |

* Denotes a party-in-interest as defined by ERISA

** Not required as investments are participant directed

See accompanying report of independent registered public accounting firm. 22

RIO TINTO AMERICA INC. 401(k) SAVINGS PLAN
AND INVESTMENT PARTNERSHIP PLAN

Employer Identification Number: 11-3359689

Plan Number: 002

Schedule H, Part IV, Line 4i

Schedule of Assets (Held at End of Year)

Continued

December 31, 2009

| (a) Party in Interest | (b) Identity of Issue | (c) Description of Investment | Number of Units | (d) Cost | (e) Current Value Continued |
|-----------------------------|---|--|--------------------|-------------|--------------------------------------|
| | | Synthetic Guaranteed Investment Contracts: | | | |
| | Monumental Life Insurance Company | Synthetic GIC, Dwight Managed Target 2, no specified maturity date, 2.64% | 1,902,805 | ** | \$ 33,433,353 |
| | Monumental Life Insurance Company | Synthetic GIC, Dwight Managed Target 5, no specified maturity date, 2.64% | 1,459,486 | ** | 27,671,593 |
| | Monumental Life Insurance Company | Synthetic GIC, Dwight Intermediate Core Plus Fund, no specified maturity date, 2.64% | 131,787 | ** | 2,134,406 |
| | State Street Bank & Trust Company | Synthetic GIC, Dwight Managed Target 2, no specified maturity date, 2.77% | 1,538,601 | ** | 27,034,095 |
| | State Street Bank & Trust Company | Synthetic GIC, Dwight Intermediate Core Plus Fund, no specified maturity date, 2.77% | 834,957 | ** | 13,522,895 |
| | State Street Bank & Trust Company | Synthetic GIC, Dwight Managed Target 5, no specified maturity date, 2.77% | 458,752 | ** | 8,697,857 |
| | | Total | | | 112,494,199 |
| | | Synthetic Guaranteed Investment Contracts | | | |
| * | Rio Tinto plc ADRs | Common Stock | 221,436 | ** | 47,695,057 |
| * | Mercer | Pending Account | | ** | 89,865 |

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| | | | | | |
|---------------------------|----------------------|---|-------|----|----------------|
| * | Various participants | Participant loans (maturing 2010 to 2029 at interest rates ranging from 4.25% to 10.5%) | 1,138 | ** | 10,000,661 |
| Investments at Fair Value | | | Total | | \$ 480,350,270 |

* Denotes a party-in-interest as defined by ERISA

** Not required as investments are participant directed

See accompanying report of independent registered public accounting firm. 23

SIGNATURE

Pursuant to the requirements of the Securities Exchange Act of 1934, the trustees (or other persons who administer the employee benefit plan) have duly caused this annual report to be signed on its behalf by the undersigned hereunto duly authorized.

RIO TINTO AMERICA, INC. 401(k) SAVINGS PLAN AND
INVESTMENT PARTNERSHIP PLAN

By: /s/ Patrick Keenan
Name: Patrick Keenan
Chair, Rio Tinto America Benefit Governance
Committee

Date: June 29, 2010

EXHIBIT INDEX

| Exhibit Number | Document |
|-------------------|--|
| 23.1 | Consent of Independent Registered Public Accounting Firm |