

Macquarie Global Infrastructure Total Return Fund Inc.
Form N-Q
April 29, 2010

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

FORM N-Q

**QUARTERLY SCHEDULE OF PORTFOLIO HOLDINGS OF REGISTERED
MANAGEMENT INVESTMENT COMPANY**

Investment Company Act file number 811-21765

Macquarie Global Infrastructure Total Return Fund Inc.
(Exact name of registrant as specified in charter)

125 West 55th Street, New York, NY
(Address of principal executive offices)

10019
(Zip code)

JoEllen L. Legg

ALPS Fund Services, Inc.

1290 Broadway, Suite 1100

Denver, Colorado 80203
(Name and address of agent for service)

Registrant's telephone number, including area code: (303) 623-2577

Date of fiscal year end: November 30

Date of reporting period: December 1, 2009 February 28, 2010

Item 1. Schedule of Investments.

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Macquarie Global Infrastructure Total Return Fund

Schedule of Investments

February 28, 2010 (Unaudited)

(Expressed in U.S. Dollars)

| Description | Shares | Value \$ |
|---|------------|---------------|
| COMMON STOCKS - 115.19% | | |
| Australia - 16.87% | | |
| Asciano Group(1)(2) | 7,230,979 | \$ 11,664,751 |
| Intoll Group | 1,777,007 | 1,791,627 |
| SP AusNet | 10,969,759 | 9,290,407 |
| Spark Infrastructure Group | 15,557,822 | 19,798,988 |
| Transurban Group(1) | 2,416,418 | 11,347,736 |
| | | 53,893,509 |
| Brazil - 3.77% | | |
| Cia de Concessionarios Rodoviaras (1) | 195,300 | 4,085,073 |
| EDP Energias do Brasil SA | 409,400 | 7,951,714 |
| | | 12,036,787 |
| Canada - 6.73% | | |
| Enbridge, Inc. (1) | 242,325 | 10,741,340 |
| TransCanada Corp. (1) | 325,215 | 10,749,836 |
| | | 21,491,176 |
| China - 13.05% | | |
| Beijing Capital International Airport Co., Ltd. (2) | 6,052,000 | 3,313,644 |
| Cheung Kong Infrastructure Holdings, Ltd. | 1,008,004 | 3,791,954 |
| China Merchants Holdings International Co., Ltd. | 2,360,000 | 8,497,903 |
| Dalian Port PDA Co., Ltd. | 15,762,000 | 6,538,606 |
| Jiangsu Expressway Co., Ltd. | 9,934,000 | 9,227,358 |
| Zhejiang Expressway Co., Ltd. | 11,418,609 | 10,326,860 |
| | | 41,696,325 |
| France - 15.33% | | |
| Aeroports de Paris(1) | 214,367 | 16,929,856 |
| Electricite de France(1) | 169,507 | 8,496,123 |
| Eutelsat Communications(1) | 122,749 | 4,076,591 |
| GDF Suez | 110,452 | 4,056,223 |
| Vinci SA(1) | 294,489 | 15,418,167 |
| | | 48,976,960 |
| Germany - 10.13% | | |
| E.ON AG(1) | 172,529 | 6,144,466 |
| Fraport AG Frankfurt Airport Services Worldwide(1) | 205,136 | 10,326,631 |
| Hamburger Hafen und Logistik AG | 426,676 | 15,884,153 |

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| | | |
|----------------------|---------|------------|
| | | 32,355,250 |
| India - 1.06% | | |
| NTPC, Ltd. (1) | 767,560 | 3,380,394 |

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| | | |
|---|-----------|--------------------|
| Italy - 4.15% | | |
| Atlantia SpA | 574,579 | 13,253,497 |
| Japan - 2.86% | | |
| Tokyo Gas Co., Ltd. | 2,098,473 | 9,140,740 |
| Mexico - 2.03% | | |
| Grupo Aeroportuario del Pacifico SA de CV - Class B | 1,899,506 | 6,481,129 |
| New Zealand - 1.32% | | |
| Auckland International Airport, Ltd. | 3,244,398 | 4,216,072 |
| Spain - 13.12% | | |
| Abertis Infraestructuras SA(1) | 720,838 | 13,584,420 |
| Enagas SA(1) | 603,657 | 12,592,627 |
| Red Electrica de Espana SA(1) | 312,386 | 15,721,387 |
| | | 41,898,434 |
| Switzerland - 2.04% | | |
| Flughafen Zuerich AG(1) | 21,846 | 6,507,536 |
| United Arab Emirates - 0.79% | | |
| DP World, Ltd. | 6,571,787 | 2,516,994 |
| United Kingdom - 4.11% | | |
| Severn Trent Plc(1) | 738,522 | 13,119,120 |
| United States - 17.83% | | |
| American Water Works Co., Inc(1) | 202,100 | 4,498,746 |
| Corrections Corp. of America(2) | 99,500 | 2,129,300 |
| FirstEnergy Corp. | 140,600 | 5,434,190 |
| ITC Holdings Corp. (1) | 291,734 | 15,572,761 |
| Northeast Utilities(1) | 368,248 | 9,427,149 |
| PG&E Corp. | 196,400 | 8,233,088 |
| Spectra Energy Corp. | 535,200 | 11,667,360 |
| | | 56,962,594 |
| Total Common Stocks | | |
| (Cost \$382,513,788) | | 367,926,517 |

| MASTER LIMITED PARTNERSHIPS - 11.52% | | | |
|--|-------------|-----------|-----------------------|
| United States - 11.52% | | | |
| Description | 7 Day Yield | Shares | Value \$ |
| Energy Transfer Partners LP(1) | | 180,133 | 8,336,555 |
| Enterprise Products Partners LP(1) | | 436,078 | 14,285,916 |
| Magellan Midstream Partners LP(1) | | 312,988 | 14,159,577 |
| | | | 36,782,048 |
| Total Master Limited Partnerships | | | 36,782,048 |
| (Cost \$33,969,226) | | | |
| SHORT TERM INVESTMENTS - 2.61% | | | |
| Money Market Fund- 2.61% | | | |
| Northern Institutional Government Select Portfolio | 0.010% | 8,339,228 | 8,339,228 |
| Total Short Term Investments | | | 8,339,228 |
| (Cost \$8,339,228) | | | |
| Total Investments - 129.32% | | | 413,047,793 |
| (Cost \$424,822,242) | | | |
| Other Liabilities Less Other Assets - (0.83)% | | | (2,651,655) |
| Leverage Facility - (28.49)% (3) | | | (91,000,000) |
| Total Net Assets - 100.00% | | | \$ 319,396,138 |

See Notes to Quarterly Schedule of Investments.

SWAP AGREEMENT(4):

| Interest Rate Swap Counterparty | Notional Amount | Fixed Rate Paid by the Fund | Floating Rate Received by the Fund (5) | Floating Rate Index | Termination Date | Unrealized Depreciation | % of Net Assets |
|---------------------------------|-----------------|-----------------------------|--|---------------------|------------------|-------------------------|-----------------|
| National Australia Bank | 40,000,000 USD | 4.865% | US 1MT LIBOR | US LIBOR BBA 1 MT | December 9, 2010 | \$ (1,429,566) | (0.45)% |

PORTFOLIO DIVERSIFICATION BY INDUSTRY SECTOR(6)(7):

| | |
|----------------------------------|--------|
| Pipelines | 20.1% |
| Toll Roads | 19.3% |
| Electric Utility | 12.1% |
| Airports | 11.7% |
| Ports | 11.0% |
| Electricity and Gas Distribution | 9.3% |
| Electricity Transmission | 7.6% |
| Water | 4.3% |
| Other | 1.5% |
| Diversified | 0.9% |
| Electricity Generation | 0.8% |
| Other Net Assets | 1.4% |
| | 100.0% |

(1) All or a portion of the securities are available to serve as collateral on the outstanding leverage. The aggregate market value of the collateralized securities totals \$237,384,804 as of February 28, 2010.

(2) Non-Income Producing Security.

(3) Leverage facility expressed as a percentage of net assets. However, leverage limitations are calculated based on Total Assets as defined in the Fund's Prospectus. (See Note 6 Under Notes to Quarterly Schedule of Investments)

(4) Derivatives are not accounted for as hedging instruments under ASC 815 (formerly FAS 133 & FAS 161).

(5) London-Interbank Offered Rate - British Bankers Association Fixing for U.S. Dollar. The fixing is conducted each day at 11:00 a.m. (London time). The rate is an average derived from the quotations provided by the banks determined by the British Bankers Association. The US 1MT LIBOR was 0.229% as of February 28, 2010.

(6) Percentages are based upon Total Assets as defined in the Fund's Prospectus. Please note that percentages shown on the Schedule of Investments are based on net assets.

(7) Industry sectors are based on Manager's own evaluation of issuers and industries may group multiple sectors together, and do not necessarily track any standard industry or segment classification.

Common Abbreviations:

| | |
|-------|--|
| AG | Aktiengesellschaft is a German term that refers to a corporation that is limited by shares, i.e., owned by shareholders. |
| BBA | British Bankers Association. |
| LIBOR | London Interbank Offered Rate. |
| LP | Limited Partnership. |

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| | |
|----------|---|
| Ltd. | Limited. |
| Plc | Public Limited Company. |
| SA | Generally designates corporations in various countries, mostly those employing the civil law. |
| SA de CV | Sociedad Anonima de Capital Variable is a Spanish Variable Capital Company. |
| SpA | Societeta Per Azioni is an Italian shared company. |
| USD | United States Dollar. |

See Notes to Quarterly Schedule of Investments.

NOTES TO QUARTERLY SCHEDULE OF INVESTMENTS

February 28, 2010 (Unaudited)

1. Portfolio Valuation: The net asset value (NAV) of the common shares will be computed based upon the value of the securities and other assets and liabilities held by the Fund. The NAV is determined as of the close of regular trading on the NYSE (normally 4:00 p.m. Eastern Standard Time) on each day the NYSE is open for trading. U.S. debt securities and non-U.S. securities will normally be priced using data reflecting the earlier closing of the principal markets for those securities (subject to the fair value policies described below).

Readily marketable portfolio securities listed on any U.S. exchange other than the NASDAQ National Market are valued, except as indicated below, at the last sale price on the business day as of which such value is being determined, or if no sale price, at the mean of the most recent bid and asked prices on such day. Securities admitted to trade on the NASDAQ National Market are valued at the NASDAQ official closing price as determined by NASDAQ. Securities traded on more than one securities exchange are valued at the last sale price on the business day as of which such value is being determined at the close of the exchange representing the principal market for such securities. U.S. equity securities traded in the over-the-counter market, but excluding securities admitted to trading on the NASDAQ National Market, are valued at the closing bid prices.

Non-U.S. exchange-listed securities will generally be valued using information provided by an independent third party pricing service. The official non-U.S. security price is determined using the last sale price at the official close of the security's respective non-U.S. market, which is usually different from the close of the NYSE. Occasionally, events affecting the value of such securities may occur between such times and the close of NYSE that will not always be reflected in the computation of the value of such securities. If events materially affecting the value of such securities occur during such period, these securities will be valued at their fair value according to the procedures adopted by the Fund's Board of Directors. Non-U.S. securities, currencies and other assets denominated in non-U.S. currencies are translated into U.S. Dollars at the exchange rate of such currencies against the U.S. Dollar as provided by a pricing service. When price quotes are not available, fair market value may be based on prices of comparable securities.

Forward currency exchange contracts are valued by calculating the mean between the last bid and asked quotation supplied to a pricing service by certain independent dealers in such contracts. Non-U.S. traded forward currency contracts are valued using the same method as the U.S. traded contracts. Exchange traded options and futures contracts are valued at the closing price in the market where such contracts are principally traded. These contracts may involve market risk. In addition, the Fund could be exposed to risk if the counterparties are unable to meet the terms of the contract or if the value of the currencies changes unfavorably to the U.S. Dollar.

In the event that the pricing service cannot or does not provide a valuation for a particular security, or such valuation is deemed unreliable, especially with unlisted securities or instruments, fair value is determined by the Board of Directors or a committee of the Board of Directors or a designee of the Board. In fair valuing the Fund's investments, consideration is given to several factors, which may include, among others, the following:

- the projected cash flows for the issuer;
- the fundamental business data relating to the issuer;

- an evaluation of the forces that influence the market in which these securities are purchased and sold;
 - the type, size and cost of holding;
 - the financial statements of the issuer;
 - the credit quality and cash flow of the issuer, based on the Manager's or external analysis;
 - the information as to any transactions in or offers for the holding;
 - the price and extent of public trading in similar securities (or equity securities) of the issuer, or comparable companies;
-

- the business prospects of the issuer/ borrower, including any ability to obtain money or resources from a parent or affiliate and an assessment of the issuer's or borrower's management; and
- the prospects for the issuer's or borrower's industry, and multiples (of earnings and/or cash flow) being paid for similar businesses in that industry.

Fair Value Measurements: In accordance with GAAP, the Fund uses a three-tier hierarchy to establish classification of fair value measurements for disclosure purposes. Inputs refer broadly to the assumptions that market participants would use in pricing the asset or liability, including assumptions about risk. Inputs may be observable or unobservable. Observable inputs are inputs that reflect the assumptions market participants would use in pricing the asset or liability that are developed based on market data obtained from sources independent of the reporting entity. Unobservable inputs are inputs that reflect the reporting entity's own assumptions about the assumptions market participants would use in pricing the asset or liability that are developed based on the best information available.

Level 1 Unadjusted quoted prices in active markets for identical assets or liabilities that the Fund has the ability to access.

Level 2 Observable inputs other than quoted prices included in level 1 that are observable for the asset or liability, either directly or indirectly. These inputs may include quoted prices for the identical instrument on an inactive market, prices for similar instruments, interest rates, prepayment speeds, credit risk, yield curves, default rates and similar data.

Level 3 Unobservable inputs for the asset or liability, to the extent relevant observable inputs are not available; representing the Fund's own assumptions about the assumptions a market participant would use in valuing the asset or liability, and would be based on the best information available.

The availability of observable inputs can vary from security to security and is affected by a wide variety of factors, including, for example, the type of security, whether the security is new and not yet established in the marketplace, the liquidity of markets, and other characteristics particular to the security. To the extent that valuation is based on models or inputs that are less observable or unobservable in the market, the determination of fair value requires more judgment. Accordingly, the degree of judgment exercised in determining fair value is greatest for instruments categorized in Level 3.

The inputs used to measure fair value may fall into different levels of the fair value hierarchy. In such cases, for disclosure purposes, the level in the fair value hierarchy within which the fair value measurement falls in its entirety, is determined based on the lowest level input that is significant to the fair value measurement in its entirety.

Various inputs are used in determining the value of the Fund's investments as of the reporting period end. The designated input levels are not necessarily an indication of the risk or liquidity associated with these investments.

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The valuation techniques used by the Fund to measure fair value during the period ended February 28, 2010 maximized the use of observable inputs and minimized the use of unobservable inputs.

The following is a summary of the inputs used as of February 28, 2010 in valuing the Fund's investments carried at value:

| Investments in Securities at Value* | Valuation Inputs | | | Total |
|--|-------------------------|-----------------------|----------------|-----------------------|
| | Level 1 | Level 2 | Level 3 | |
| Common Stocks | \$ 367,926,517 | \$ | \$ | \$ 367,926,517 |
| Master Limited Partnerships | 36,782,048 | | | 36,782,048 |
| Short-Term Investments | | 8,339,228 | | 8,339,228 |
| Total | \$ 404,708,565 | \$ 8,339,228 | \$ | \$ 413,047,793 |
| Other Financial Instrument | | | | |
| Interest Rate Swap | \$ | \$ (1,429,566) | \$ | \$ (1,429,566) |
| Total | \$ | \$ (1,429,566) | \$ | \$ (1,429,566) |

* For detailed country descriptions, see the accompanying Schedule of Investments. For the period ended February 28, 2010, the Portfolio did not have significant unobservable inputs (Level 3) used in determining fair value. Therefore, a reconciliation of assets in which significant unobservable inputs (Level 3) were used in determining fair value is not applicable.

2. Foreign Currency Translation: The accounting records of the Fund are maintained in U.S. Dollars. Prices of securities and other assets and liabilities denominated in non-U.S. currencies are translated into U.S. Dollars using the exchange rate at 4: 00 p.m., Eastern Standard Time. Amounts related to the purchases and sales of securities, investment income and expenses are translated at the rates of exchange prevailing on the respective dates of such transactions.

Net realized gain or loss on foreign currency transactions represents net foreign exchange gains or losses from the closure of forward currency contracts, disposition of foreign currencies, currency gains or losses realized between the trade and settlement dates on security transactions and the difference between the amount of dividends, interest and foreign withholding taxes recorded on the Fund's books and the U.S. Dollar equivalent amount actually received or paid. Net unrealized currency gains and losses arising from valuing foreign currency denominated assets and liabilities, other than security investments, at the current exchange rate are reflected as part of unrealized appreciation/depreciation on foreign currency translation.

The Fund does not isolate that portion of the results of operations arising as a result of changes in the foreign exchange rates from the changes in the market prices of securities held at Period end. The Fund does not isolate the effect of changes in foreign exchange rates from changes in market prices of securities sold during the year. The Fund may invest in foreign securities and foreign currency transactions that may involve risks not associated with domestic investments as a result of the level of governmental supervision and regulation of foreign securities markets and the possibility of political or economic instability, among others.

3. Securities Transactions and Investment Income: Investment security transactions are accounted for as of trade date. Dividend income is recorded on the ex-dividend date. Interest income, which includes amortization of premium and accretion of discount, is accrued as earned. Realized gains and losses from securities transactions are determined on the basis of identified cost for both financial reporting and income tax purposes.

4. Repurchase Agreements: Securities pledged as collateral for repurchase agreements are held by a custodian bank until the agreements mature. Each agreement requires the market value of the collateral to exceed payments of interest and principal. In the event of default by the other party to the agreement, retention of the collateral may be subject to legal proceedings. As of February 28, 2010, the Fund did not hold any repurchase agreements in its portfolio.

5. Interest Rate Swap Contracts: The Fund has entered into an interest rate swap agreement with the National Australia Bank (counterparty), rated by Standard and Poor's as AA Stable, to partially hedge its interest rate exposure on its leverage facility described in Note 6. In this interest rate swap agreement, the Fund agrees to pay the counterparty a fixed rate payment in exchange for the counterparty agreeing to pay the Fund a variable rate payment that is intended to approximate the Fund's variable rate payment obligation on the leverage facility. The payment obligation is based on the notional amount of the swap. Depending on the state of interest rates in general, the use of interest rate swaps could enhance or harm the overall performance of the Fund. The Fund's maximum risk of loss from the counterparty is the discounted net value of the cash flows to be received from the counterparty over the contract remaining life, to the extent the amount is positive. As of February 28, 2010, the unrealized depreciation associated with the interest rate swap contract is \$1.4 million and, therefore, the Fund did not possess any counterparty risk as of that date. The market value of interest rate swaps is based on pricing models that consider the time value of money, volatility, the current market and contractual prices of the underlying financial instrument. A realized gain or loss is recorded upon payment or receipt of a periodic payment or termination of swap agreements.

6. Leverage: On October 27, 2009, the Fund entered into a Committed Facility Agreement with BNP Paribas Prime Brokerage Inc. (the BNP Paribas Facility), which provides a credit facility to be used as leverage for the Fund. The proceeds of the first borrowing under the BNP Paribas Facility were used to repay all amounts outstanding under the commercial paper conduit arrangement dated October 31, 2008 with TSL (USA) Inc. as a conduit lender and National Australia Bank Limited New York Branch as a secondary lender (together the Terminated Facilities). As of February 28, 2010 the Fund had \$91 million in leverage outstanding.

The BNP Paribas Facility provides for a secured, committed line of credit for the Fund where selected Fund's assets are pledged against advances made to the Fund. As of February 28, 2010 the market value of the securities pledged as collateral for the BNP Paribas Facility totaled to \$237,384,804.

The BNP Paribas Facility required an up front payment from the Fund equal to \$250,000, which will be amortized over a six month period. The Fund pays interest on the outstanding amounts at a rate of 100 bps per annum above 3-month LIBOR. As of February 28, 2010 the accrued interest on loan payable by the fund was \$3,656. For the period ended February 28, 2010, the daily average amount outstanding under the Terminated Facilities and the BNP Paribas Facility was \$87,400,000 with an average rate on the borrowing of 1.25%.

7. Income Tax: Net unrealized appreciation (depreciation) of investments based on federal tax costs were as follows:

| | | |
|--|----|--------------|
| Gross appreciation (excess of value over tax cost) | \$ | 34,228,718 |
| Gross depreciation (excess of tax cost over value) | | (38,954,211) |
| Net unrealized depreciation | | (4,725,493) |
| Total cost for federal income tax purposes | \$ | 417,773,286 |

Item 2. Controls and Procedures.

(a) The registrant's principal executive officer and principal financial officer have evaluated the registrant's disclosure controls and procedures (as defined in Rule 30a-3(c) under the Investment Company Act of 1940) within 90 days of this filing and have concluded that the registrant's disclosure controls and procedures were effective, as of that date.

(b) There was no change in the registrant's internal control over financial reporting (as defined in Rule 30a-3(d) under the Investment Company Act of 1940) during registrant's last fiscal quarter that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting.

Item 3. Exhibits.

Separate certifications for the registrant's principal executive officer and principal financial officer, as required by Section 302 of The Sarbanes-Oxley Act of 2002 and Rule 30a-2(a) under the Investment Company Act of 1940, are attached as Ex99.CERT.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934 and the Investment Company Act of 1940, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

Macquarie Global Infrastructure Total Return Fund Inc.

By: /s/ Jon Fitch
Jon Fitch
Chief Executive Officer/Principal Executive Officer

Date: April 29, 2010

Pursuant to the requirements of the Securities Exchange Act of 1934 and the Investment Company Act of 1940, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

By: /s/ Jon Fitch
Jon Fitch
Chief Executive Officer/Principal Executive Officer

Date: April 29, 2010

By: /s/ Richard C. Butt
Richard C. Butt
Treasurer, Chief Financial Officer/ Principal Financial Officer

Date: April 29, 2010