Macquarie Global Infrastructure Total Return Fund Inc.

Form N-O

October 26, 2015

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 10019

(Address of principal executive offices) (Zip code)

JoEllen L. Legg, Esq.
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: June 1, 2015 – August 31, 2015

Item 1. Schedule of Investments.

Macquarie Global Infrastructure Total Return Fund Schedule of Investments AUGUST 31, 2015 (Unaudited) (Expressed in U.S. Dollars)

Description COMMON STOCKS - 132.65% Australia - 9.62%	Shares	Value \$
APA Group Transurban Group ⁽¹⁾	803,163 3,692,086	\$5,012,678 25,433,941 30,446,619
Brazil - 0.58% Prumo Logistica SA ⁽¹⁾⁽²⁾	10,600,195	1,841,403
Canada - 12.64% Enbridge, Inc. ⁽¹⁾ TransCanada Corp. Veresen, Inc. ⁽³⁾	575,287 262,603 684,800	23,774,973 9,161,962 7,073,907 40,010,842
China - 10.44% China Longyuan Power Group Corp., Ltd., Class H China Merchants Holdings International Co., Ltd. COSCO Pacific, Ltd. ⁽⁴⁾ ENN Energy Holdings, Ltd. Hopewell Highway Infrastructure, Ltd. Huadian Fuxin Energy Corp., Ltd.	3,381,000 5,026,012 3,263,433 356,000 7,145,500 9,984,000	3,590,381 16,796,499 3,920,305 1,816,737 3,420,598 3,504,039 33,048,559
France - 15.14% Eiffage SA Electricite de France SA Engie Groupe Eurotunnel SE ⁽¹⁾ Vinci SA	112,107 261,995 942,886 832,646 107,029	7,189,524 5,671,218 16,913,090 11,272,983 6,895,094 47,941,909
Germany - 3.65% Fraport AG Frankfurt Airport Services Worldwide ⁽¹⁾ Hamburger Hafen und Logistik AG	74,408 387,233	4,498,817 7,059,001 11,557,818
Italy - 4.69% Atlantia SpA ⁽¹⁾ Enel Green Power SpA	369,545 2,588,725	9,894,387 4,938,397 14,832,784

Luxembourg - 1.04%

Intelsat SA ⁽²⁾⁽³⁾	339,218	3,280,238
Mexico - 1.17% OHL Mexico SAB de $CV^{(2)}$	2,779,000	3,720,802
Poland - 0.70% Energa SA	425,402	2,202,521
Singapore - 3.86% Hutchison Port Holdings Trust ⁽¹⁾	23,304,300	12,234,758

Description	Shares	Value \$
Spain - 6.44% Abertis Infraestructuras SA ⁽¹⁾	1,231,675	\$20,400,162
Switzerland - 2.63% Flughafen Zuerich AG ⁽¹⁾	10,465	8,330,644
United Kingdom - 10.15% Centrica Plc ⁽¹⁾ National Grid Plc ⁽¹⁾ Pennon Group Plc	1,679,206 1,600,323 401,737	6,266,636 21,121,440 4,749,867 32,137,943
United States - 49.90% American Electric Power Co., Inc. ⁽¹⁾ American Tower Corp. ⁽¹⁾ American Water Works Co., Inc. ⁽¹⁾ Atmos Energy Corp. ⁽¹⁾ Columbia Pipeline Group, Inc. ⁽¹⁾ Crown Castle International Corp. ⁽¹⁾ Dominion Resources, Inc. ⁽¹⁾ Duke Energy Corp. ⁽¹⁾ Edison International ⁽¹⁾ ITC Holdings Corp. ⁽¹⁾ Kinder Morgan, Inc. NiSource, Inc. ⁽¹⁾ PG&E Corp. ⁽¹⁾ Sempra Energy ⁽¹⁾ Spectra Energy Corp. ⁽¹⁾ The Williams Cos., Inc. ⁽¹⁾ Xcel Energy, Inc.	180,800 76,300 190,300 89,600 163,300 149,790 75,100 194,300 198,500 145,660 63,500 435,300 97,800 245,300 338,600 292,000 382,300	9,815,632 7,034,097 9,884,182 4,909,184 4,141,288 12,490,988 5,238,225 13,777,813 11,608,280 4,763,082 2,058,035 7,308,687 4,848,924 23,266,705 9,843,102 14,074,400 12,894,979 157,957,603
Total Common Stocks (Cost \$456,371,814)		419,944,605
MASTER LIMITED PARTNERSHIPS - 9.15% United States - 9.15% Buckeye Partners LP ⁽¹⁾ Energy Transfer Equity LP ⁽¹⁾ Enterprise Products Partners LP ⁽¹⁾ Magellan Midstream Partners LP ⁽¹⁾ Total Master Limited Partnerships	86,500 171,180 370,156 108,434	6,091,330 4,801,599 10,405,085 7,652,188 28,950,202 28,950,202
(Cost \$24,897,095) Total Investments - 141.80% (Excluding investments purchased with cash collateral from securities loaned) (Cost \$481,268,909)		448,894,807

INVESTMENTS PURCHASED WITH CASH COLLATERAL FROM SECURITIES LOANED - 2.58% Invesco Short-Term Investments Trust, Treasury Portfolio, Institutional Class, 0.02% 7-Day Yield⁽⁵⁾ 8,164,250

Description Total Investments Purchased with Cash Collateral From Securities Loaned (Cost \$8,164,250)	Shares Value \$ 8,164,250
Total Investments - 144.38% (Cost \$489,433,159)	\$457,059,057
Liabilities in Excess of Other Assets - (0.19)%	(602,390)
Leverage Facility - (44.19)% ⁽⁶⁾	(139,886,023)
Total Net Assets - 100 00%	\$316,570,644

- All or a portion of the security is available to serve as collateral on the outstanding leverage. The aggregate market value of the collateralized securities totals \$316,865,578 as of August 31, 2015.
- (2) Non-Income Producing Security.
- (3) All or a portion of the security is on loan as of August 31, 2015.
- (4) Fair valued security under the procedures approved by the Fund's Board of Directors.
- The security has been segregated to satisfy the commitment to return the cash collateral received in securities lending transactions upon the borrower's return of the securities loaned. (Note 5)
- 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. (Note 4)

Common Abbreviations:

AG Aktiengesellschaft is a German term that refers to a corporation that is limited by shares, i.e., owned by shareholders.

Co. Company.

Corp. Corporation.

Inc. Incorporated.

LPLimited Partnership.

Ltd. Limited.

Plc Public Limited Company.

SAGenerally designates corporations in various countries, mostly those employing the civil law.

SAB de CV Sociedad Anonima Bursatil de Capital Variable is a Spanish Variable Capital Company.

SE Regulation. A European Company which can operate on a Europe-wide basis and be governed by Community law directly applicable in all Member States.

SpA Societeta' Per Azioni is an Italian shared company.

See Notes to Quarterly Schedule of Investments.

NOTES TO QUARTERLY SCHEDULE OF INVESTMENTS

August 31, 2015 (unaudited)

1. Portfolio Valuation: The net asset value ("NAV") of the shares of common stock of the Macquarie Global Infrastructure Total Return Fund Inc. (the "Fund") 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 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 the 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. Although there are observable inputs assigned on a security level, prices are derived from factors using Interactive Data Corporation's ("IDC") Fair Value Information Service ("FVIS") model. For this reason, significant events will cause movements between Level 1 and Level 2 (see the description of inputs and levels below). 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 in accordance with the Fund's valuation policy.

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 excess of the unrealized gain or loss. 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 Valuation Committee. Except as otherwise designated by the Board of Directors, the Valuation Committee shall be comprised of at least five members designated by the Fund or Macquarie Capital Investment Management LLC ("MCIM"), each of whom are officers of the Fund, representatives of MCIM and/or representatives of ALPS Fund Services, Inc. A quorum of the Valuation Committee will consist of a minimum of three voting members, provided that the members present include at least one of the following: the Portfolio Manager, the Chief Financial Officer (or appropriate designee) or the Trader. The Chief Compliance Officer (or appropriate designee) must be in attendance, but shall be non-voting. In fair valuing the Fund's investments, the Valuation Committee will consider the Securities and Exchange Commission (the "SEC") pronouncements on valuations, including Accounting Series Release No. 118, to the extent

relevant.

A variety of factors may be considered when determining the fair value of such securities, including, but not limited to the following:

- ·the type of security
- ·the size of the holding
- ·the cost of the holding
- ·the financial statements of 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 or sold
- ·transactions in comparable securities
- ·price quotes from dealers and/or pricing services
- ·information obtained from contacting the issuer, analysts or appropriate stock exchange
- ·the existence of merger proposals or tender offers that might affect the value of the security

Fair Value Measurements: The Fund discloses the classification of its fair value measurements following a three-tier hierarchy based on the inputs used to measure fair value. 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 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 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.

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. When inputs used fall into different levels of the fair value hierarchy, the level in the hierarchy within which the fair value measurement falls is determined based on the lowest level input that is significant to the fair value measurement in its entirety. These inputs are categorized in the following hierarchy under applicable financial accounting standards:

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, 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 Management'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 Fund evaluates transfers into or out of Level 1, Level 2 and Level 3 as of the end of the reporting period. During the nine months ended August 31, 2015, there were no transfers between Level 1 and 2 securities.

Changes in valuation techniques may result in transfers between the levels during the reporting period. The Fund recognizes transfers between the levels as of the end of each reporting period. In accordance with procedures established by, and under the general supervision of the Fund's Board of Directors, certain equity securities listed or traded on foreign security exchanges in the Fund's portfolio may include a fair valuation adjustment factor applied to their equity prices as of the end of the period and may be categorized as Level 2. Application of fair valuation adjustment factors was not deemed necessary at the end of the period and as such, equity securities listed or traded on foreign security exchanges were categorized as Level 1.

The following is a summary of the inputs used as of August 31, 2015 in valuing the Fund's investments carried at value:

	Valuation Inpu	its			
		Level			
Investments in Securities at Value*	Level 1	2	Level 3	Total	
Common Stocks					
China	\$29,128,254	\$	- \$3,920,305	\$33,048,559	
Other	386,896,046			386,896,046	
Master Limited Partnerships	28,950,202			28,950,202	
Investments Purchased with Cash Collateral From Securities					
Loaned	8,164,250			8,164,250	
Total	\$453,138,752	\$	- \$3,920,305	\$457,059,057	

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

Investments in	Balance	Return	Realized	Change in	Purchases	Transfer	Balance	Net change in
Securities at	as of	of	gain/(loss)	unrealized		into	as of	unrealized
Value*	11/30/2014	capital		appreciation/		Level 3	8/31/2015	appreciation/
				(depreciation))			(depreciation)
								attributable to
								Level 3
								investments
								held at

								8/31/2015	
Common Stocks	\$ -	\$ -	\$ -	\$ -	\$ -	\$3,920,305 \$	3,920,305	\$ (817,148)
Total	\$ -	\$ -	\$ -	\$ -	\$ -	\$3,920,305 \$	3,920,305	\$ (817,148)

^{*}For detailed country descriptions, see the accompanying Schedule of Investments

^{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 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 translation of assets and liabilities denominated in foreign currencies.

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.

The Fund has elements of risk, including the risk of loss of principal. There is no assurance that the investment process will consistently lead to successful results. An investment concentrated in sectors and industries may involve greater risk and volatility than a more diversified investment.

- 3. Securities Transactions and Investment Income: Investment security transactions are accounted for as of the 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. Leverage: The Fund has entered into a Committed Facility Agreement with BNP Paribas Prime Brokerage International Ltd. (the "BNP Paribas Facility" or "Agreement"), which provides for a committed credit facility to be used as leverage for the Fund. The BNP Paribas Facility provides for secured, committed lines of credit for the Fund, where selected Fund assets are pledged against advances made to the Fund. Under the 1940 Act, the Fund, after any such borrowings, must have "asset coverage" of at least 300% (33 1/3% of the Fund's Total Assets after borrowings). Under the current terms, the total amount of loans that may be outstanding at any one time, or the Maximum Commitment Financing ("MCF"), under the BNP Paribas Facility is \$120,000,000 and €40,000,000. The Fund may reduce the MCF by a total aggregate amount of up to \$20,000,000 upon one business day's prior notice (no more than one time per calendar month). The Fund pays 0.70% per annum above 3-month LIBOR for the U.S. Dollar line and 0.70% above the 3-month EURIBOR for the Euro line. The Fund pays a commitment fee of 0.50% on the undrawn MCF.

On July 23, 2014, \$60,000,000 of the U.S. Dollar line was fixed at a rate of 2.453% for a five year period. The fund paid an arrangement fee of 0.25% on the fixed rate borrowing.

As of August 31, 2015, the Fund had \$35,000,000 and $\le 40,000,000$ in leverage outstanding on the variable lines and $\le 60,000,000$ outstanding on the fixed line. The daily average amounts outstanding on the variable lines were $\le 34,418,182$, with an average rate on the borrowing of 0.98%, and $\le 38,231,707$, with the average rate on borrowing of 0.72%.

The unused amount under the BNP Paribas Facility was \$25,000,000 at August 31, 2015. The loan payable is carried at cost, and the Euro line is adjusted daily for foreign currency translation. At August 31, 2015, the Fund maintained an asset coverage of 326% and the market value of the securities pledged as collateral for the BNP Paribas Facility totaled \$316,865,578.

5. Lending of Portfolio Securities: From time to time the Fund may lend portfolio securities to broker-dealers and banks. The loans are secured by collateral in the form of cash that is equal to at least 102% of the fair value of the U.S. securities, and at least 105% of the fair value of the non-U.S. securities loaned plus accrued interest, if any. The

collateral must have a market value at least equal to 100% of the market value of the loaned securities at all times during the duration of the loan. Security lending income represents the income earned on investing cash collateral, less rebates paid to borrowers and any lending agent fees associated with the loan, plus any premium payments received for lending certain types of securities. Gain or loss in the fair value of the securities loaned that may occur during the term of the loan will be for the account of the Fund. Under the lending agreement, the Fund has the right under the lending agreement to recover the securities from the borrower on demand, and loans are subject to termination by the lending Fund or the borrower at any time. While the lending Fund does not have the right to vote securities on loan, it intends, to the extent practicable, to terminate the loan and regain the right to vote if the matter to be voted upon is considered significant with respect to the investment. The risks of securities lending are that the borrower may not provide additional collateral when required or return the securities when due, which could result in losses to the Fund. The Fund receives cash collateral that is invested in the Invesco Short-Term Investments Trust Treasury Portfolio. This collateral must be valued daily; should the market value of the loaned securities increase, the borrower must furnish additional collateral to the lending Fund. The Fund bears the risk of any income or gains and losses from investing and reinvesting cash pledged as collateral. During the time portfolio securities are on loan, the borrower pays the lending Fund the economic equivalent of any dividends or interest paid on such securities. In the event the borrower defaults on its obligation to the lending Fund, the lending Fund could experience delays in recovering its securities and possible capital losses. As of August 31, 2015, the Fund had securities on loan valued at \$7,981,331 and received cash collateral with a value of \$8,164,250.

6. Income Tax: As of August 31, 2015, net unrealized appreciation/depreciation of investments based on federal tax costs was as follows:

Gross appreciation (excess of value over tax cost) \$34,856,348
Gross depreciation (excess of tax cost over value) (63,099,829)
Net unrealized depreciation \$(28,243,481)
Total cost for federal income tax purposes \$485,302,538

Item 2. Controls and Procedures.

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.

There was no change in the registrant's internal control over financial reporting (as defined in Rule 30a-3(d) under (b) 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/ Brad Frishberg
Brad Frishberg
Chief Executive Officer/
Principal Executive Officer

Date: October 26, 2015

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/ Brad Frishberg
Brad Frishberg
President, Chief Executive Officer/
Principal Executive Officer

Date: October 26, 2015

By: /s/ Meredith Meyer
Meredith Meyer
Treasurer, Chief Financial Officer/
Principal Financial Officer

Date: October 26, 2015