Macquarie Global Infrastructure Total Return Fund Inc.
Form N-CSR
February 05, 2016

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

FORM N-CSR

CERTIFIED SHAREHOLDER REPORT OF REGISTERED
MANAGEMENT INVESTMENT COMPANIES

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)

Sareena Khwaja-Dixon, Esq.
ALPS Fund Services, Inc.
1290 Broadway, Suite 1100
Denver, CO 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, 2014 – November 30, 2015

Item 1. Reports to Stockholders.

Section 19(b) Disclosure
NOVEMBER 30, 2015 (unaudited)

Macquarie Global Infrastructure Total Return Fund Inc. ("MGU" or the “Fund”), acting pursuant to a Securities and Exchange Commission (“SEC”) exemptive order and with the approval of the Fund’s Board of Directors (the “Board”), has adopted a plan, consistent with its investment objectives and policies, to support a level distribution of income, capital gains and/or return of capital (the “Plan”). In accordance with the Plan, the Fund currently distributes $0.37 per share on a quarterly basis.

The fixed amount distributed per share is subject to change at the discretion of the Fund’s Board. Under the Plan, the Fund will distribute all available investment income to its shareholders, consistent with its primary investment objectives and as required by the Internal Revenue Code of 1986, as amended (the “Code”). If sufficient investment income is not available on a quarterly basis, the Fund will distribute long-term capital gains and/or return of capital to shareholders in order to maintain a level distribution. Each quarterly distribution to shareholders is expected to be at the fixed amount established by the Board, except for extraordinary distributions and potential distribution rate increases or decreases to enable the Fund to comply with the distribution requirements imposed by the Code.

Shareholders should not draw any conclusions about the Fund’s investment performance from the amount of these distributions or from the terms of the Plan. The Fund’s total investment return on net asset value is presented in its financial highlights table.

The Board may amend, suspend or terminate the Fund’s Plan without prior notice if it deems such action to be in the best interest of the Fund or its shareholders. The suspension or termination of the Plan could have the effect of creating a trading discount (if the Fund’s stock is trading at or above net asset value) or widening an existing trading discount. The Fund is subject to risks that could have an adverse impact on its ability to maintain level distributions. Examples of potential risks include, but are not limited to, economic downturns impacting the markets, increased market volatility, companies suspending or decreasing corporate dividend distributions and changes in the Code. Please refer to the Fund’s prospectus for a more complete description of its risks.

A cumulative summary of the Section 19(a) notices for the Fund’s current fiscal period, if applicable, are included in Additional Information. Section 19(a) notices for the Fund, as applicable, are available on the Fund website www.macquarie.com/mgu.

CAUTION REGARDING FORWARD-LOOKING STATEMENTS AND PAST PERFORMANCE

This Annual Report contains certain forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended. Forward-looking statements include statements regarding the goals, beliefs, plans or current expectations of Macquarie Capital Investment Management LLC ("MCIM" or "Manager") and its respective representatives, taking into account the information currently available to them. Forward-looking statements include all statements that do not relate solely to current or historical facts. For example, forward-looking statements may include the use of words such as "anticipate," "estimate," "intend," "expect," "believe," "plan," "may," "should," "would" or o that convey uncertainty of future events or outcomes. Forward-looking statements involve known and unknown risks, uncertainties and other factors that may cause the Fund's actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements. Past performance is not a reliable indication of future performance. When evaluating the information included in this Annual Report, you are cautioned not to place undue reliance on these forward looking statements, which reflect the judgment of MCIM and its respective representatives only as of the date hereof. We undertake no obligation to publicly revise or update these forward-looking statements to reflect events and circumstances that arise after the date hereof.

Capitalized terms used but not defined herein have the meaning assigned to them in the Fund's Prospectus.

The Macquarie Global Infrastructure Total Return Fund Inc. is not an authorised deposit-taking institution for the purposes of the Banking Act 1959 (Commonwealth of Australia). Macquarie Global Infrastructure Total Return Fund Inc.'s obligations do not represent deposits or other liabilities of Macquarie Bank Limited ABN 46 008 583 542 ("MBL"). MBL does not guarantee or otherwise provide assurance in respect of the obligations of the Macquarie Global Infrastructure Total Return Fund Inc., unless noted otherwise.

Stockholder Letter
NOVEMBER 30, 2015 (unaudited)

Introduction

We are pleased to present this Annual Report to the shareholders of MGU for the twelve months ended November 30, 2015 (the "Period"). The Fund commenced operations and began trading on the New York Stock Exchange on August 26, 2005.

Performance & Portfolio Review

Global infrastructure securities lagged global equities in the Period.

Commodity markets were the key focus for investors as 2014 drew to a close, with oil prices in particular continuing their sharp falls which drove weakness in equity and credit markets. While lower oil prices will help consumers, the US economy in particular has become significantly less energy-dependent over time. Consequently, a fall in oil prices should have a less positive impact compared to historical experiences.

Easing by central banks was a key theme moving into 2015, resulting in lower yields in most developed nations. The European Central Bank (ECB) launched its much anticipated Quantitative Easing program and was careful to not disappoint market expectations, with a total size in excess of €1.1trillion. While the bold monetary easing has boosted bond and risk assets, the familiar question remains over its ability to make any meaningful impact on either growth or inflation expectations. Similar large-scale easing in Japan has yet to make any appreciable impact on growth expectations.

In the US, a trend of softer data reversed in the first quarter as a strong payrolls report early in March led to a sharp repricing of the US Treasury curve. The US Federal Reserve (Fed) dropped its commitment to being "patient" in relation to rate hikes (as generally expected) but at the same time lowered its forecast future rate path, and lowered its growth and inflation expectations for 2016 and 2017.

Equity markets were varied across regions in the second quarter, as the US continued to trade at or near new highs while Europe generally underperformed, with Greece weighing on sentiment in the Eurozone with numerous false dawns of an impending agreement. In Asia, sentiment was also guarded as the Chinese economy continued to be a background focus, with data again disappointing.

Moving into the second half of 2015, the Greek government eventually agreed to a third bailout package almost identical to that which the popular vote had resoundingly rejected. This resulted in a relief rally in European risk assets, however the episode deeply shook the belief that the single currency would remain inviolable. While markets were appeased that an immediate default had been averted, the deal offered little hope for economic growth or meaningful debt relief.

Despite the continued support from Chinese authorities to support the fragile equity market, it was very weak in the third quarter with the Shanghai Stock Exchange Composite Index(6) down over 14% in July. Investors continued to question the underlying strength of the Chinese economy and the resulting impact on global growth. Fresh worries surfaced when China devalued its currency by about 3% against the US dollar over two days in mid-August. The move sparked sharp negative moves in currencies, share markets and commodities, as markets feared renewed competitive devaluations as countries looked to shore up export demand. Emerging markets have been the ‘engine room’ of global growth since 2008, and a further slowing would have significant implications for the global economic outlook.

Commodity prices continued their slide into the fourth quarter. While increased supply has been a theme (especially in oil and iron ore), a lack of global demand for commodities continued to indicate that growth conditions were weakening, not least in China, the world’s second largest economy. Indeed, economic data continued to broadly weaken, with key releases later in the Period falling short of expectations in the US and China. The releases underscored the fragility of the recovery, with the US as the relative (but apparently slowing) bright spot in an overall slowing global economy.

For the Twelve-Month Period Ended November 30, 2015(1)	Total Return (%)(2)
Macquarie Global Infrastructure Total Return Fund Inc. – NAV	-10.16
Macquarie Global Infrastructure Total Return Fund Inc. – Market Price	-20.92
S&P Global Infrastructure Index (Net Total Return)(3)	-10.37
Macquarie Global Infrastructure Index(4) (“MGII”)	-11.03
MSCI World Index (Net Total Return)(5)	-0.72

Past performance is not indicative of future results. One cannot invest directly in an index.

Unless otherwise indicated, all references to currency are to USD.

(1) Calculated on a total return basis, adjusting for distributions and assuming dividend reinvestment.

(2) Source: ALPS Fund Services Inc., Bloomberg L.P.

(3) The S&P Global Infrastructure Index (Net Total Return) consists of approximately 75 infrastructure/utilities stocks and is selected by Standard & Poor’s Financial Services LLC.

(4) The Macquarie Global Infrastructure Index consists of approximately 250 infrastructure/utilities stocks in the FTSE Global All-Cap Index.

(5) The MSCI World Index is a stock market index of approximately 1600 “world” stocks maintained by MSCI Inc. The index includes a collection of stocks of all the developed markets in the world, as defined by MSCI.

(6) The Shanghai Stock Exchange Composite Index is a capitalization weighted index that tracks the daily price of all A-shares and B-shares listed on the Shanghai Stock Exchange.

There were a number of factors driving the Fund's total return during the Period:

- Underperformance from the Pipeline sector;
- Weakness from the Electric Utility and Seaport sectors;
- Positive performance from the Airport and Toll Road Sector

Let's look at these reasons in further detail.

Pipelines

The Pipeline sector experienced volatility throughout the Period. We believe the price action was a combination of a number of factors that converged, including an increase in the negative sentiment about commodity prices, forced selling as some sector-dedicated funds had to liquidate in order to meet leverage targets, as well as general hedge fund de-risking as broader markets came under pressure. Within the Period, the most significant detractors were positions in Enbridge Inc., TransCanada and Veresen.

While the fundamentals of some North American pipeline stocks are somewhat tied to commodity prices, we continue to view select names with minimal direct commodity exposure favorably. We have stress tested our valuation models by conservatively assuming no growth capital expenditure from 2018 onwards. We assume projects that have already commenced or are contracted will be completed and come into service. Even under this scenario, valuations continue to look relatively cheap. While we believe share price volatility will likely persist in the short term, we began to opportunistically increase our exposure to several of the higher quality names in the sector.

Amid the volatility, Energy Transfer Equity announced it would acquire Williams Companies for $37.7 billion to create the third largest energy franchise in North America. We view the combination favorably as it should create significant operational efficiencies as well as new investment opportunities that would otherwise not be achievable by the entities on a stand-alone basis. The transaction is anticipated to be completed in the first half of 2016, on receipt of regulatory and shareholder approvals.

Electric Utility

The Electric Utility sector was another underperformer as the increased possibility of interest rate rises was a general headwind. Engie (formerly GDF Suez) was lower primarily due to weaker fundamentals in its Energy Europe division. Duke Energy suffered similar declines, as complications relating to an acquisition and general pressure on the sector weighed on shares in the Period.

Seaport

Positions within the Seaport sector also detracted. Specifically, Hamburger Hafen und Logistik and Hutchison Port lagged. Concerns regarding Chinese economic growth, and more specifically declining shipping volumes, presented a headwind to Hutchison later in the Period.

Airports

The Airport sector was the most significant contributor to the Fund in the Period. Fraport recovered from its previous weakness and rallied strongly after reaffirming guidance for 2015 traffic volumes, following the strike-impacted volumes in 2014. It also announced a surprise dividend increase, having reported full year results and its 2015 outlook in line with expectations. Flughafen Zurich rebounded from early weakness after reporting stronger than expected traffic volumes. It also reported better than expected 2014 financial results and increased the proposed dividend ahead of expectations. Future dividend growth is expected, driven by earnings growth and a new, higher pay-out ratio. Despite the Swiss Franc appreciation, traffic growth has remained positive and seat capacity growth is ahead of expectations. Early in the Period the Spanish government successfully sold a minority stake in Aena, which owns a network of over 40 domestic and international airports in Spain, including Madrid and Barcelona - two of the ten largest airports in Europe. The Initial Public Offering received strong demand and the stock performed well after listing. Auckland International Airport was another strong contributor in the Period.

Toll Roads

Transurban, the largest position in the Fund, was a meaningful contributor in the Period. The company started the year well after reporting strong traffic and revenue data for the December quarter. Proportional toll revenue increased 37% from the prior corresponding period, reflecting the additional contribution from the Queensland Motorways assets which were acquired in mid-2014, as well as solid underlying growth across its other roads. In April, the market responded positively to Transurban’s proposal to build a new motorway in Melbourne which was accepted by the state government. The proposed new “Western Distributor” will include a tunnel and elevated motorway that connects the key arterial West Gate Freeway with the port, Transurban’s existing Citylink road, and the Central Business District. Later in the period, the company announced the purchase of AirportlinkM7 in Brisbane for A$1.87bn (Transurban’s stake is 62.5%). These projects are particularly significant as we believe they highlight the power of a road network, which has been a core part of our Transurban investment thesis for many years.

Stockholder Letter
NOVEMBER 30, 2015 (unaudited)

Eiffage and Vinci also performed well as the French motorways benefited from easing regulatory concerns as they reached an agreement in principle settling the dispute on tariffs and toll road profitability. Vinci also published its Q1 2015 trading update with motorway traffic in line with expectations, and Portuguese airport traffic continued to outperform the original business case. Along with the trading update, Vinci reiterated FY 2015 earnings guidance. A general theme across the sector in the Period was an increase in traffic volume, which is likely driven in part by the materially lower fuel prices.

Leverage

Leverage detracted from the Fund's return during the Period, as it magnified the underlying negative return.

As of November 30, 2015, the Fund had USD 85 million and EUR 40 million in leverage outstanding. At Period-end, the Fund's leverage was 29.7% of its Total Assets, which is within the limit outlined in the Fund's Prospectus. To avoid magnifying the USD exposure due to leverage, the Fund also borrows in Euro to help offset the currency exposure of the investments with the currency of the borrowings.

In determining the leverage level for the Fund, we balance the cost of leverage against the longer term potential for enhanced yield and capital returns.

Performance relative to reference benchmarks

The Fund, which is not managed against any benchmark, outperformed two reference benchmarks, the S&P Global Infrastructure Index (Net Total Return) and the Macquarie Global Infrastructure Index ("MGII"). The Fund underperformed the MSCI World Index (Net Total Return). The main contributor to the Fund's outperformance was the benefit of positive stock selection across the portfolio.

Fund Diversification by Country & Sector

At the end of the Period, the Fund held positions in 54 global infrastructure stocks representing 15 countries and 11 infrastructure sectors.

The table below shows the top ten holdings in the Fund as of November 30, 2015.

Rank	Stock	Country	Infrastructure Sector[6]	%[7]
1	Transurban Group	Australia	Toll Roads	6.3
2	Sempra Energy	United States	Electricity & Gas Distribution	5.2
3	Enbridge Inc.	Canada	Pipelines	4.6
4	Abertis Infraestructuras SA	Spain	Toll Roads	4.3
5	Groupe Eurotunnel	France	Rail / Other Transportation	4.1
6	China Merchants Holdings	China	Seaports	3.7
7	Williams Cos	United States	Pipelines	3.1
8	National Grid PLC	United Kingdom	Electricity Transmission	3.1
9	Duke Energy Corp	United States	Electric Utility	3.1
10	NextEra Energy	United States	Electric Utility	3.1

Subject to change in the future.

The tables below show the structure of the portfolio by country and sector.

Country	% of Fund on November 30, 2015[7]	% Point Change over Period	% of Fund on November 30, 2014[7]
United States	42.1	6.7	35.4
Canada	8.7	1.7	7.0
Australia	8.4	1.6	6.8
France	7.8	-4.3	12.1
China	7.6	0.2	7.4
United Kingdom	5.8	-1.4	7.2
Spain	5.3	2.5	2.8
Italy	3.8	-0.6	4.4
Singapore	2.2	0.1	2.1
Germany	2.0	-0.9	2.9
Switzerland	1.7	-0.8	2.5
Mexico	0.8	0.8	—
Brazil	0.5	-0.5	1.0
Poland	0.3	0.3	—
Luxembourg	0.2	-0.8	1.0
Japan	—	-2.6	2.6

New Zealand	—	-1.0	1.0
Netherlands	—	-0.5	0.5
Other Assets	2.8	-0.5	3.3

Subject to change in the future.

(6) Industry segments are based on the Manager's own evaluation of issuers and industries, and do not necessarily track any standard industry or segment classification. Classifications are made by the Investment team and based on the primary business segment of the issuer.

(7) Based on Total Assets as defined in the Prospectus.

7

Stockholder Letter
NOVEMBER 30, 2015 (unaudited)

Infrastructure Sector[7]	% of Fund on November 30, 2015[7]	% Point Change over Period	% of Fund on November 30, 2014[7]
Pipelines	26.9	9.0	17.9
Electric Utility	16.4	0.1	16.3
Toll Roads	15.8	-0.2	16.0
Electricity and Gas Distribution	8.5	-3.4	11.9
Seaport	8.2	-0.7	8.9
Communications Infrastructure	4.7	-0.5	5.2
Electricity Transmission	4.4	-0.2	4.6
Rail / Other Transportation	4.1	-1.1	5.2
Airports	3.8	-1.6	5.4
Water	2.6	0.9	1.7
Electricity Generation	1.8	0.2	1.6
Social Infrastructure	—	-2.0	2.0
Other Assets	2.8	-0.5	3.3

Subject to change in the future.

Distributions

The Fund paid a quarterly dividend of $0.35 per share in December 2014 and March 2015. The Fund raised its quarterly distribution to $0.37 per share in June 2015 and maintained that distribution in September 2015. Altogether, the Fund paid $1.44 per share during the Period.

A portion of the distributions may be treated as paid from sources other than net income, including, but not limited to, short-term capital gain, long-term capital gain and return of capital. The final determination of the source of all distributions in 2015, including the percentage of qualified dividend income, will be made by the Fund after December 31, 2015.

Outlook

The Fund remains well diversified across a broad range of infrastructure sectors and countries, with stocks that we believe have the attractive characteristics that infrastructure investors seek.

It was clear during the Period that the Fed wanted to move away from zero rates, and the first rate increase since 2006 occurred in December. We continue to believe that there are very limited fundamental reasons for higher rates, with growth anaemic and inflation pressures showing no sign of building. We expect the Fed to act very gradually and to remain supportive for the medium term. In contrast, the ECB remains firmly in the easing camp.

(7) Based on Total Assets as defined in the Prospectus.

The infrastructure assets owned and operated by the Fund's diversified range of infrastructure companies continue to perform well operationally and recent results have generally been in line with expectations. We continue to value infrastructure assets using long term interest rates, the path of which is only somewhat influenced by movements in shorter term rates.

Conclusion

The Fund's investment strategy is to invest in the listed securities of companies globally that own and/ or operate infrastructure assets that we believe provide essential services, have strong strategic positions, and are well positioned to generate sustainable and growing cash flow streams for shareholders from their infrastructure assets.

We believe that MGU provides investors with an attractive vehicle to access the broad global universe of listed infrastructure securities. We continue to appreciate your investment in the Fund.

For any questions or comments you may have, please call us at 1-800-910-1434 or visit us online at www.macquarie.com/mgu.

Yours sincerely,

Brad Frishberg
Chief Executive Officer
Co-Portfolio Manager

Jonathon Ong
Co-Portfolio Manager
9

Schedule of Investments
NOVEMBER 30, 2015
(Expressed in U.S. Dollars)

Description	Shares	Value $
COMMON STOCKS - 131.02%		
Australia - 11.89%		
APA Group	1,154,566	$7,431,343
Transurban Group[1]	3,583,236	26,872,786
Transurban Group - Institutional Placement Shares[1][2]	199,069	1,460,543
		35,764,672
Brazil - 0.74%		
Prumo Logistica SA[1][2]	8,483,495	2,214,611
Canada - 13.14%		
Enbridge, Inc.[1]	609,936	21,662,559
TransCanada Corp.	395,203	12,470,593
Veresen, Inc.[3]	684,800	5,373,997
		39,507,149
China - 10.83%		
China Gas Holdings, Ltd.	1,474,000	2,095,000
China Longyuan Power Group Corp., Ltd.	3,381,000	2,812,613
China Merchants Holdings International Co., Ltd.	4,833,886	15,710,932
COSCO Pacific, Ltd.[4]	3,263,433	3,863,869
ENN Energy Holdings, Ltd.		