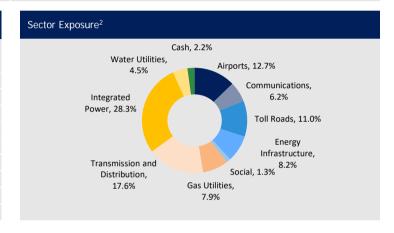


# MFG Core Infrastructure (USD)

Portfolio Manager	Strategy Inception Date	Total Strategy Assets	Total Infrastructure Assets <sup>1</sup>
Gerald Stack	18 January 2012	USD \$3,747.6 million	USD \$6,777.2 million

Objective	Approach	
Capital preservation in adverse markets	Diversified rules-based portfolio applying our proprietary infrastructure classification	
Pre-fee return of CPI plus 5%p.a. through the economic cycle	Highly defensive, inflation-linked exposure	
	Benchmark unaware	

Top 10 Holdings <sup>2</sup>	Sector <sup>2</sup>	%
Enbridge Inc	Energy Infrastructure	3.3
Atlantia SpA	Toll Roads	3.1
Abertis Infraestructuras	Toll Roads	3.1
TransCanada Corp	Energy Infrastructure	3.0
National Grid PLC	Transmission and Distribution	3.0
Transurban Group	Toll Roads	3.0
Aena SA	Airports	2.9
Power Assets Holdings	Integrated Power	2.8
Snam Rete Gas SpA	Gas Utilities	2.6
Aeroports De Paris	Airports	2.5
	TOTAL:	29.3



USD 5 Year Risk Measures <sup>4</sup>	Against Benchmark <sup>5</sup>	Against Global Equities
Upside Capture	1.1	0.8
Downside Capture	0.8	0.4
Beta	0.9	0.6
Correlation	0.9	0.5



Cumulative Performance <sup>3</sup>	3 Months (%)	1 Year (%)	3 Years (% p.a.)	5 Years (% p.a.)	Since Inception (% p.a.)
Composite (Gross)	2.7	12.4	10.4	11.9	12.7
Composite (Net)	2.5	11.6	9.6	11.1	11.9
Global Infrastructure Benchmark	2.9	12.2	5.8	8.5	8.6
Excess (Gross)	-0.2	0.2	4.6	3.4	4.1
MSCI World NTR Index	4.8	18.2	7.7	11.0	11.5

Annual Performance <sup>3</sup>	CYTD (%)	2016 (%)	2015 (%)	2014 (%)	2013 (%)	2012 (%)*
Composite (Gross)	18.7	7.2	-0.1	17.4	14.0	16.4
Composite (Net)	18.0	6.5	-0.8	16.6	13.2	15.6
Global Infrastructure Benchmark	17.2	11.4	-12.2	14.1	14.4	7.0
Excess (Gross)	1.5	-4.2	12.1	3.3	-0.4	9.4
MSCI World NTR Index	16.0	7.5	-0.9	4.9	26.7	13.0

- 1 Comprised of all Infrastructure Strategies
- Tomprised of all infrastructure Strategies.

  2 The data is based on a representative portfolio for the strategy. Refer to the end of the document for further information. Sectors are internally defined. Geographical exposure is by domicile of listing.

  3 Returns are for the Core Infrastructure Composite and denoted in USD. Performance would vary if returns were denominated in a currency other than USD. Refer to the GIPS Disclosure section below for further information. Composite (Net) returns are net of fees charged to clients and have been reduced by the amount of the highest fee charged to any client employing that strategy during the period under consideration. Actual fees may vary depending on, among other things, the applicable fee schedule and portfolio size. Fees are available upon request.

  4 Risk measures are for the Core Infrastructure Composite before fees. The Global Equity Index is the MSCI World NTR Index.
- 5 The Benchmark or Global Infrastructure benchmark is comprised of the following: from inception to 31 December 2014 the benchmark is UBS Developed Infrastructure & Utilities NTR Index and from 1 January 2015 onwards, the benchmark is the S&P Global Infrastructure NTR Index. Note: the UBS Developed Infrastructure and Utilities NTR Index ceased to be published from 31 March 2015, replaced on 1 January 2015 with the S&P Global Infrastructure Index NTR.

  \* Returns are only for part year.

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The Global Infrastructure Benchmark is comprised of the following: from inception to 31 December 2014 the benchmark is UBS Developed Infrastructure & Utilities Index Net Total Return and from 1 January 2015 the benchmark is S&P Global Infrastructure Net Total Return Index. The benchmark changed because UBS discontinued their index series.

The UBS Developed Infrastructure & Utilities Index Net Total Return is a market capitalisation weighted index that is designed to measure the equity performance of listed Infrastructure and Utility stocks. Index results assume the reinvestment of all distributions of capital gain and net investment income using a tax rate applicable to non-resident institutional investors who do not benefit from double taxation treaties.

The S&P Global Infrastructure Net Total Return Index is a market capitalisation weighted index that is designed to track 75 companies from around the world diversified across three infrastructure sectors energy, transportation and utilities. Index results assume the reinvestment of all distributions of capital gain and net investment income using a tax rate applicable to non-resident institutional investors who do not benefit from double taxation treaties.

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For the purpose of complying with GIPS, the Firm is defined as all discretionary portfolios managed by MFG Asset Management.

The Global Core Infrastructure composite is a global strategy investing in strictly defined or "pure" infrastructure companies (typically 80-120). The filtered investment universe is comprised of stocks that 1. generate reliable income streams, 2. benefit from inflation protection and have an appropriate capital structure. The investment objective of the strategy is to minimise the risk of permanent capital loss; and achieve superior risk adjusted investment returns over the medium to long-term. The composite was created in February 2012.

To achieve investment objectives, the composite may also use derivative financial instruments including, but not limited to, options, swaps, futures and forwards. Derivatives are subject to the risk of changes in the market price of the underlying securities instruments, and the risk of the loss due to changes in interest rates. The use of certain derivatives may have a leveraging effect, which may increase the volatility of the composite and may reduce its returns.

A list of composites and descriptions, as well as policies for valuing investments, calculating performance, and preparing compliant presentations are available upon request by emailing data@magellangroup.com.au

The representative portfolio is an account in the composite that closely reflects the portfolio management style of the strategy. Performance is not a consideration in the selection of the representative portfolio. The characteristics of the representative portfolio may differ from those of the composite and of the other accounts in the composite. Information regarding the representative portfolio and the other accounts in the composite is available upon request.

## **Market Commentary**

Global infrastructure stocks rose for a third consecutive quarter in the September quarter after US infrastructure companies reported healthy earnings, and concerns about North Korea's nuclear posturing bolstered the appetite for defensive investments. A rebound in US bond yields in September, however, reduced much of the gains recorded in July and August such that utilities was the third worst-performing of the 11 industry classifications within the MSCI World Index over the quarter.

Political tensions and another weak reading of US inflation lowered US 10-year bond yields in July and August, to provide another support for alternative long-duration assets such as infrastructure stocks that offer reliable income streams. But comments the Federal Reserve would start shrinking its balance sheet in October boosted US 10-year bond yields by 22 basis points to 2.33% in September.

Global stocks set record highs as they rose for a sixth straight quarter after US companies posted better-than-expected earnings for the second quarter, reports showed the world's major economies were growing in unison for the first time in a decade, the Federal Reserve reiterated that monetary policy would only likely be tightened gradually, and Angela Merkel won a fourth term in elections in Germany. Utilities stocks were among the 73% of S&P 500 companies that reported 'positive' earnings-per-share surprises for the second quarter, according to FactSet.

# **Strategy Commentary**

The portfolio recorded a positive return in the September quarter. At a stock level, the best performers included investments in Abertis Infraestructuras of Spain, Atlantia and SIAS of Italy. Abertis rose 5.4% after Spain's ACS group indicated it was looking into a bid for the toll-road operator, which is already subject to a bid from Atlantia. Atlantia rose 8.4% as the toll-road and airport operator reported healthy first-half results. SIAS soared 40% following the release of its five-year strategic plan that highlighted the opportunities within the toll-road operator.

Lagging stocks included the investments in Aena, Scana, Auckland International Airport and Zurich Airport. Aena lost 11% after CEO José Manuel Vargas in September resigned unexpectedly with no replacement at hand. Auckland Airport fell 9.7% amid concerns that building disruptions could slow earnings growth, and flights were curtailed after a break in the pipeline supplying the airport with jet fuel. Zurich Airport lost 7.0% after the half-year results included guidance for stable full-year earnings despite recording strong passenger growth.

Movements in stocks are in local currency.

# Topic in Focus Why invest in toll roads?

Toll roads today are a popular way for cash-strapped governments to raise money and improve the quality of, and reduce the congestion on, road networks. They are popular with investors because they offer the reliable inflation-protected earnings usually associated with infrastructure. Given the huge capital costs (toll roads often cost billions of dollars to build), for most investors the listed market is the only viable option. Here we discuss the features of toll roads including their risks so investors can better understand why the best ones are worthwhile investments.

#### Toll roads explained

There are two main types of toll roads. These are intra-urban or city-based roads, which can be further divided into radial, orbital and high-occupancy toll (HOT) lanes, and inter-urban toll roads, those between cities.

Each road varies in terms of its dynamics but, in general, this difference stems from the types of users and the trips undertaken. City-based toll roads typically host a higher proportion of cars – that is, people travelling to and from work each day. This means that in an economic downturn traffic will decline as some people take a toll-free route instead. But as long as people have jobs to go to or errands to run the diversion is likely to be minimal. By contrast, roads between cities tend to have higher proportions of commercial traffic and discretionary trips, which are more economically sensitive. Intra-urban roads typically stay busier during economic downturns, as occurred during the global financial crisis in 2008-09.

As is generally the case for transport infrastructure, the revenue for a toll road is a function of volume and price. In the case of toll roads, this can be put simply as:

Toll-road revenue = Traffic volume x toll price

As tolls increase, there is generally a temporary switching effect where some users shift to the toll-free alternative. This causes the competing routes to get more congested, which boosts the attractiveness of the tolled route. This results in an increase in total revenue, all things being equal, as the toll increase more than offsets the temporary decline in traffic. Traffic on Sydney's Eastern Distributor, for example, grew 106% over 16 years despite tolls increasing 123% over the same period.

### Pricing mechanism for toll roads

The typical business model for a toll road is that a government agency enters into a concession agreement (contract) that entitles a toll-road operator to collect tolls for a defined period and increase those tolls on a regular basis in a defined way. The basis on which tolls are increased is controlled by the terms of the concession agreement and the level of tolls is generally linked to inflation. Table 1 below shows how contracts differ. In Canada, the owner of the 407 ETR tollway can raise tolls as it pleases, while in Australia toll increases are linked to the consumer price index.

Table 1: Toll road concession agreements – how they can differ

Asset	Location	Basis of toll increases	Frequency
407 ETR	Canada	At owner discretion	Discretionary
APRR	France	85% of CPI *	Annually
Atlantia	Italy	70% of CPI *	Annually
Chicago Skyway	USA	Greater of 2%, CPI or nominal GDP per capita	Annually
CityLink	Australia	СРІ	Quarterly
Eastern Distributor	Australia	Greater of 4.1% or basket of 67% AWE and 33% CPI	In \$0.50 increments <sup>1</sup>
Indiana Toll Road	USA	Greater of 2%, CPI or Nominal GDP per capita	Annually
M5	Australia	СРІ	Annually
M6toll	UK	At owner discretion	Discretionary
Western Harbour Tunnel	Hong Kong	СРІ	Annually

<sup>&</sup>lt;sup>1</sup>The formula is applied to a theoretical toll each quarter but tolls only increase when rounding takes it to the next \$0.50 increment.

Source: Underlying operators. As at 30 June 2017.

Three main factors affect the amount of traffic on toll roads

### 1. Trip-time certainty

A critical point in the decision-making process for drivers is how predictable travel times are. Drivers will pay a premium for a predictable trip and overestimate average driving times on trips with highly variable conditions. Another way to look at this is to say people value trip-time certainty so they don't have to leave earlier to allow for delays.

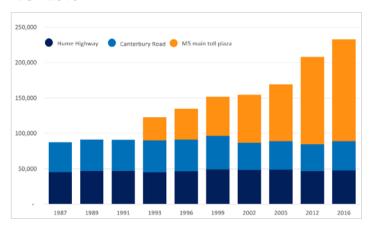
# 2. Demand for toll roads is tied to economic development

Experience shows that the demand for transport is related to economic development. Increases in populations and wealth lead to more demand for transport; in a growing economy, we can expect the number of vehicles on roads to rise over time.

### 3. Capacity constraints on the existing network

A new toll road is typically supported by governments to add capacity to a network that is at, or approaching, capacity. If alternative routes to the toll road are congested, traffic growth on toll roads is likely to be higher for longer periods of time. This is displayed in Chart 1, which shows the traffic along a key corridor in Sydney, Australia. It shows that, despite the addition of the M5 toll road in 1992, the average daily traffic on the existing network remained unchanged and traffic growth was via the toll road.

Chart 1: Average daily traffic on Sydney's M5 toll road 1987-2016



Source: RMS Traffic Data.

#### What are the risks?

#### 1. Misalignment of incentives

A misalignment of incentives of management and advisers is the most fundamental risk to the financial success of a toll road. This is one of the reasons we place so much emphasis on the governance or agency risk of these businesses. (It represents 30% of our quality score.) Incentives drive behaviour. A management team with incentives that align with the needs of long-term asset owners is less prone to such errors.

#### 2. Congestion charges

Eight cities including Milan, London, Singapore and Stockholm have congestion charges that increase the cost of a trip into the charged area, which would be expected to shift people to other modes of transport; in particular, public transport. Other solutions such as Washington DC's dynamic pricing on parking meters may also reduce traffic at the margins.

#### 3. Technological disruption

We expect autonomous vehicles and driverless cars to prove positive for the earnings of toll roads over the next 10 to 20 years, particularly for city-based toll roads.

Toll roads today typically can handle about 2,200 vehicles per lane per hour. A recent study by the University of California<sup>1</sup> concluded that full penetration of self-driving cars could double this capacity. This is because computer-driven vehicles will be able to travel much closer together, at much higher speeds and in much thinner lanes.

The long-term impact on toll roads will depend on the balance between additional trips created by driverless cars minus the additional capacity that is created on the free roads through the growth of driverless cars.

#### Conclusion

Toll roads can generate growing and inflation-protected income streams for long-term investors. While the risks are low compared with most equities, the risks of these assets are nonetheless real – particularly when they pertain to agency risk. However, in-depth research and a good understanding of the drivers of the business and incentives of management teams should allow us to reap the benefits of these largely misunderstood assets.

<sup>\*</sup> Plus an additional allowance for capex

<sup>&</sup>lt;sup>1</sup> Lewis Center. "Getting ready for the rise of autonomous vehicles." UCLA Luskin School of Public Affairs. 2016. https://www.lewis.ucla.edu/2016/11/autonomous-vehicles/