

The Frontier Line

Thought Leadership and insights from Frontier Advisors

GLI Benchmarks

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Frontier Advisors has been at the forefront of institutional investment advice in Australia for over two decades and provides advice over more than \$230B in assets across the superannuation, charity, public sector and higher education sectors. The fact our advice is fully independent of product, manager or broker conflicts, means our focus is firmly on tailoring optimal solutions and opportunities for our clients.

The Frontier Line explores a range of investment issues and ideas to explain and illuminate areas for investors to be aware of and be thinking about. Our specialist and sector research teams constantly review and discover topics to provide new perspectives and enrich understanding of critical risks and opportunities.

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Global listed infrastructure benchmarks

UBS recently announced it planned to retire its global suite of listed infrastructure indices from 31 March 2015. The timing for that decommissioning has now been postponed which allows investors additional time to transition to alternative sources. The new effective date for the discontinuation of the UBS Infrastructure and Utilities Indices is after the close on Friday, May 29, 2015.

Timing aside, this change has various implications for investors (and fund managers) with exposures that are currently benchmarked to a UBS listed infrastructure index.

Background

At Frontier, our primary preference for listed infrastructure investment is through unconstrained, high conviction, bottom-up fundamental managers. While this approach is generally more expensive than a benchmark-aware or indexed strategy, it provides more flexibility to actively allocate to sectors/securities which comprise a “true” infrastructure exposure (e.g. essential monopolistic assets with high barriers to entry, predominantly contracted/regulated income profiles with low volatility and strong inflation-linked cash flows), which is expected to provide stronger risk-adjusted returns over time. Unconstrained strategies often feature CPI-based benchmarks and, with the exception of performance fees which may be linked to market returns, market benchmark selection is generally less focused on realised investment outcomes.

For investors who are intent on capturing broader infrastructure industry dynamics at lower cost, benchmark-aware or indexed strategies may make more sense and in this context, benchmark selection is critical in shaping investment outcomes.

In this issue of Frontier Line we evaluate key alternative global listed infrastructure (“GLI”) benchmarks and discuss our preferred benchmark index for use with benchmark-aware or indexed GLI investment strategies; and unconstrained, high conviction GLI investment strategies as it relates to the determination of manager performance fees and performance attribution.

Global listed infrastructure benchmarks

Review of alternative GLI indices

The main alternative GLI index providers are S&P, FTSE, Dow Jones/Brookfield (“DJB”) and MSCI. MSCI has recently developed a new core infrastructure index in direct response to UBS’ announcement. FTSE has also recently developed a capped and re-weighted version of its existing GLI index in conjunction with a focus group of fund managers including Maple-Brown Abbott, Colonial First State Global Asset Management and Cohen & Steers. A summary of the main GLI indices is provided in Table 3, over the page..

Historical Performance

The historical return, volatility (as measured by standard deviation of monthly returns) and return/volatility ratio (risk-adjusted return) for each benchmark index is provided

in Tables 1, 2 and 4. Cells are highlighted from green to red with green (red) representing the strongest (weakest) outcomes for each measurement period.

In terms of risk, the FTSE Global Capped Index has displayed the lowest annualised volatility over longer periods, supported by its balanced exposure across the infrastructure market and its construction criteria of having at least 65% of stock revenues sourced from infrastructure activities. The DJB Index, whilst focused on companies with strong infrastructure characteristics, exhibits biases (particularly a concentration to North America and to oil & gas storage and transportation) which have resulted in somewhat higher volatility.

Table 1: Historical return to 31 December 2014 (\$A Unhedged)

	UBS 50-50	DJB	FTSE GCI	FTSE GCI Capped	S&P GI	MSCI Core Infra	MSCI World
1 Year	23.3	27.2	30.0	27.0	23.2	23.4	14.7
3 Years (p.a.)	22.7	25.1	24.2	23.5	22.0	19.5	24.5
5 Years (p.a.)	11.0	17.1	15.6	14.9	11.0	10.1	12.3
7 Years (p.a.)	3.0	9.1	8.7	7.9	3.3	3.0	4.3
Since Jan-06	5.9	10.4	8.6	8.7	6.8	4.5	1.6

Source: Maple-Brown Abbott , Bloomberg, Frontier

Table 2: Historical volatility to 31 December 2014 (\$A Unhedged)

	UBS 50-50	DJB	FTSE GCI	FTSE GCI Capped	S&P GI	MSCI Core Infra	MSCI World
1 Year	5.8	5.6	6.6	5.6	4.9	4.7	7.8
3 Years (p.a.)	7.6	7.1	8.1	6.8	6.6	6.7	9.3
5 Years (p.a.)	9.1	8.2	9.1	7.9	8.3	8.3	9.6
7 Years (p.a.)	11.7	11.2	12.0	10.7	11.2	10.9	12.2
Since Jan-06	11.4	10.7	11.6	10.3	10.6	10.5	12.0

Source: Maple-Brown Abbott , Bloomberg, Frontier

Global listed infrastructure benchmarks

Table 3: GLI index summaries

	UBS Global Infrastructure and Utilities 50-50	S&P/DJ/ Brookfield Global Infrastructure Composite	FTSE Global Core Infrastructure	FTSE Global Core Infrastructure Capped	S&P Global Infrastructure	MSCI World Core Infrastructure
Launch year	2005	2008	2011	2015 (Release scheduled for 1 March 2015)	2007	2015
No. Stocks	100	95	137	204	75	115
Summary	- Balanced exposure to both infrastructure and utilities based on float-adjusted market cap based on UBS' definition of infrastructure and sell-side analyst coverage	- Developed in-house by Brookfield to ensure stocks represent "pure play" infrastructure on a fundamental basis - Minimum 70% revenue sourced from "pure play" infrastructure	- Specific definition of infrastructure based on FTSE Industry Classification Benchmark (ICB) sub-sectors - Minimum 65% revenue sourced from infrastructure	- Specific definition of infrastructure based on FTSE Industry Classification Benchmark (ICB) sub-sectors and fund manager/consultant input - Minimum 65% revenue sourced from infrastructure	- Broad definition of infrastructure based on GICS (global industry classification standard) - Provides exposure to infrastructure and infrastructure services companies	Definition of infrastructure based on restricted set of GICS sectors
Sector allocations	50% Infrastructure 50% Utilities	"Pure-Play" Infrastructure Sectors	None	50% Utilities 30% Transport 20% Other (Pipelines, Rail, Satellites)	40% Utilities 40% Transport 20% Energy	60% Utilities 40% Infrastructure
Other caps	Ind. Stock ≤ 5%	Ind. Stock ≤ 5% Industry ≤ 50% Country ≤ 50%	None	Ind. Stock ≤ 5%	Ind. Stock ≤ 5%	Sub-sectors ≤ 15% Ind. Stock ≤ 5%
EM allocation	Less than 1%	4%	4%	12%	8%	0%
Free-float Market cap	>USD500m	>USD500m	>USD500m	>USD500m	>USD500m	>USD500m
Rebalancing	Quarterly	Quarterly	Semi-Annually	Semi-Annually	Semi-Annually	Semi-Annually
Available in AUD Hedged / Unhedged	Yes / Yes	Yes / Yes	Yes / Yes	Yes / Yes	Yes / Yes	Yes / Yes

Source: FTSE, S&P, Dow Jones, S&P, MSCI, Macquarie, Maple-Brown Abbott, CFSGAM, Bloomberg, Frontier.

Global listed infrastructure benchmarks

For risk-adjusted returns, the DJB Index has delivered the strongest outcomes over longer periods, followed by the two FTSE indices. In contrast, the UBS 50-50, the S&P Index and the MSCI Core Index have all trailed the broader equity market over the seven years to December 2014 and this is reflective of the broader infrastructure definitions used across both indices.

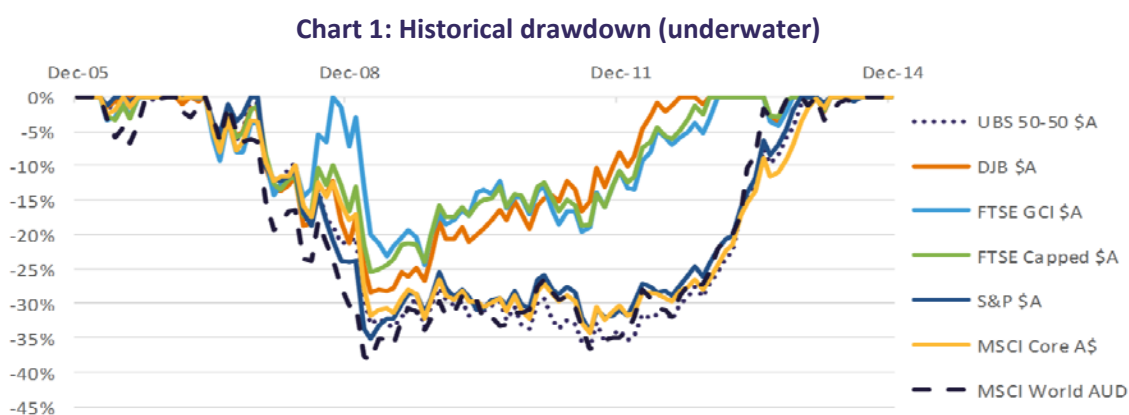
The strong historical performance of the DJB and FTSE indices is also evidenced when considering historical drawdown, as shown in Chart 1.

The historical drawdown of the DJB and FTSE indices has tracked reasonably closely with trough and duration of drawdown far less pronounced than the other GLI indices. Drawdown of the S&P and MSCI Core indices has closely tracked that of the broader global equity market, reflecting lower diversification benefits in the context of portfolio construction.

Table 4: Historical return/volatility to 31 December 2014 (\$A Unhedged)

	UBS 50-50	DJB	FTSE GCI	FTSE GCI Capped	S&P GI	MSCI Core Infra	MSCI World
1 Year	3.98	4.84	4.56	4.81	4.77	4.94	1.88
3 Years (p.a.)	3.00	3.55	3.01	3.44	3.34	2.90	2.63
5 Years (p.a.)	1.21	2.08	1.71	1.87	1.32	1.21	1.28
7 Years (p.a.)	0.26	0.81	0.72	0.74	0.29	0.28	0.35
Since Jan-06	0.52	0.97	0.74	0.85	0.64	0.43	0.13

Source: Maple-Brown Abbott, Bloomberg, Frontier



Source: Maple-Brown Abbott, Bloomberg, Frontier

Global listed infrastructure benchmarks

The DJB and FTSE indices have historically displayed demonstrable diversification benefits (albeit moderate) with a correlation to global listed equities of below 0.7. For the S&P and MSCI Core indices, correlation and beta to global listed equities has been relatively higher which, in historical terms, would have delivered less portfolio diversification and risk benefits.

Transition from UBS

Analysis provided by Macquarie estimates the required portfolio turnover for transitioning a purely passive portfolio exposure currently invested in the UBS 50-50 towards the key alternative benchmarks.

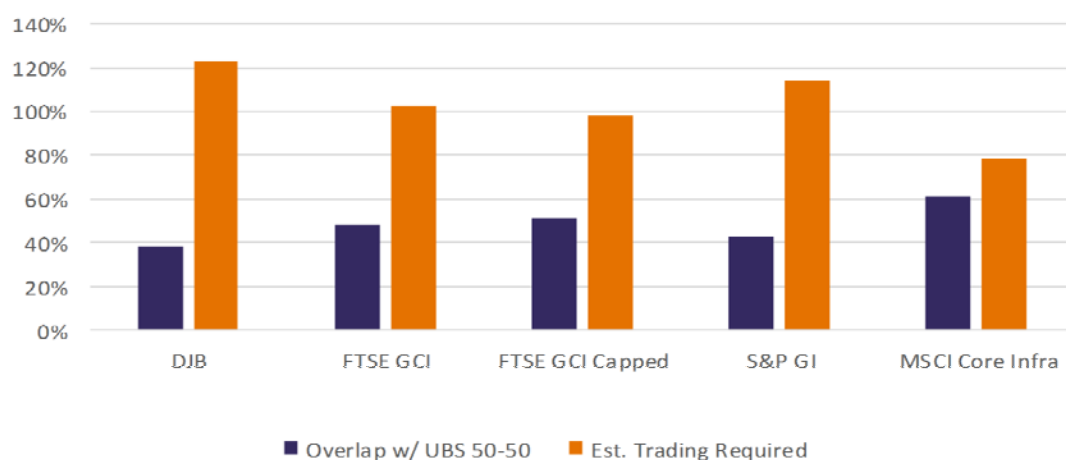
Of the alternatives, the MSCI Core index has the lowest estimated trading for transition, followed by the FTSE indices.

**Table 5: Correlation and beta to Global Listed Equities
1 January 2006 to 31 December 2014 (\$A Unhedged)**

To MSCI World	UBS 50-50	DJB	FTSE GCI	FTSE GCI Capped	S&P GI	MSCI Core Infra	MSCI World
Correlation	0.80	0.75	0.67	0.77	0.85	0.82	1.00
Beta	0.78	0.69	0.67	0.68	0.77	0.74	1.00

Source: Maple-Brown Abbott, Bloomberg, Frontier

Chart 2: Estimated trading for transition



Source: Maple-Brown Abbott, Bloomberg, Frontier

Global listed infrastructure benchmarks

Frontier Assessment

In our review of the alternative GLI indices, we have found that each option presents its own set of benefits and considerations. As such, the choice of a single GLI benchmark presents trade-offs and ultimately, the preferred index for each investor should reflect their individual portfolio objectives and GLI investment strategy.

Table 6: Views of alternative GLI indices

	Benefits	Considerations
DJB	<ul style="list-style-type: none"> - Pure-play infrastructure which is expected to maximise performance benefits from this asset class - Strongest historical returns and risk-adjusted returns - Fundamental input from Brookfield analysts 	<ul style="list-style-type: none"> - Conflicted construction methodology given input from Brookfield's funds management team - Low transparency on index changes - Concentration to North America and oil & gas with minimal transport exposure - High stock concentration - Minimal exposure to EM
FTSE GCI	<ul style="list-style-type: none"> - Positive historical performance - Large, diversified universe - Minimum infrastructure revenue requirement - Transparent, rules-based construction 	<ul style="list-style-type: none"> - High US and Utilities concentration given uncapped construction - Very little Airports exposure, excessive exposure to Rail - Long tail of low weighted stocks
FTSE Global Capped	<ul style="list-style-type: none"> - Strong historical performance with lowest historical volatility - Fund manager input on design results in balanced exposure, representative of global infrastructure market including EM - Minimum infrastructure revenue requirement - Large, diversified universe - Transparent, rules-based construction 	<ul style="list-style-type: none"> - Newly constructed index
S&P	<ul style="list-style-type: none"> - Diverse exposure to the broader infrastructure sector - Transparent, rules-based construction 	<ul style="list-style-type: none"> - Poor historical performance - Broad definition of infrastructure based on GICS - Small investment universe with low portfolio diversification benefits
MSCI Core	<ul style="list-style-type: none"> - Transparent, rules-based construction - Least trading required for transition from UBS 50-50 	<ul style="list-style-type: none"> - Newly constructed index - Poor historical performance - Broad definition of infrastructure based on GICS - Excessive exposure to utilities - No exposure to EM

Global listed infrastructure benchmarks

In arriving at our preferred GLI benchmark indices, we have taken into account the expected absolute and relative performance profile of each index. This focuses particularly on expected volatility, correlation and drawdown as these characteristics are critical for aligning with what we view as the primary investment objectives of infrastructure (i.e. low volatility and drawdown, low correlation to equities and inflation-linkage). In this context, the DJB and FTSE Global Capped indices present strongly.

We have also considered the concentration of the benchmark universe at a stock, sub-sector and country level. The DJB index as well as the S&P index have narrow universes and as a result, exhibit the highest concentrations to sub-sectors/geographies. This may make these indices less suitable for investors seeking a broad exposure to infrastructure industry dynamics.

We are mindful that global listed infrastructure as an asset class is continuing to evolve given its relatively short track record. We view favourably that in its design, the FTSE Global Capped index has benefited from fund manager and consultant input, which has led to the development of a balanced exposure to infrastructure.

This is consistent with the way in which our preferred active managers invest in practice and therefore makes this benchmark particularly suitable for performance attribution in the context of actively managed strategies as well as for determination of market-linked performance fees. In addition, because this index captures a representative share of the GLI market, we would also consider it suitable for use with benchmark aware or index strategies.

Lastly, we are cognisant that the DJB index receives input from Brookfield's funds management team who at the same time, are also an active investment participant in the GLI market. While this index aligns strongly with our preferred investment characteristics from core infrastructure, we acknowledge that this conflict may impede the use of this index by investors and some fund managers. Noting this, for investors targeting a true infrastructure exposure with less of a focus on diversification, the DJB Index provides a robust proxy for core infrastructure performance.

Global listed infrastructure benchmarks





About Frontier Advisors: Frontier Advisors is one of Australia's leading asset consultants. We offer a range of services and solutions to some of the nation's largest institutional investors including superannuation funds, charities, government / sovereign wealth funds and universities. Our services range from asset allocation and portfolio configuration advice, through to fund manager research and rating, investment auditing and assurance, quantitative modelling and analysis and general investment consulting advice. We have been providing investment advice to clients since 1994. Our advice is fully independent of product, manager, or broker conflicts which means our focus is firmly on tailoring optimal solutions and opportunities for our clients.

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