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REALIZING THE PROMISE OF LISTED INFRASTRUCTURE INVESTMENTS

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Introduction

How would you like to own stock in a company that processes sewage in the Philippines? Not your cup of tea? What if it provides solid long-term returns, above-average dividends and lower volatility than the overall market? Still not convinced? What if it has the potential to offset inflation? Do we have your attention? While these types of infrastructure companies rarely make front-page news, they have the attention of savvy institutional investors who need to fund long-term liabilities and guard against inflation. In an article published in January, 2014, Pension and Investments reported that unlisted infrastructure funds raised total capital of 38 billion US dollars in 2013. This is more than any year since 2008.

Since most investors cannot afford to buy toll roads or airports, unlisted infrastructure investments are out of their reach. This means that listed equity is the only avenue for exposure to this asset class. The clear challenge for investment professionals is choosing pure infrastructure companies that capture the beneficial characteristics of unlisted infrastructure investments in a diversified portfolio. These characteristics include low business risk, high income, low market exposure and stable rates of return.

The STOXX Global Broad Infrastructure Index is designed to meet these criteria. This new index allows investors to understand the fundamental characteristics and performance track record of infrastructure companies listed around the world. The selection list is drawn from qualified companies in developed and emerging markets.

In the paragraphs that follow, we aim to spotlight the unique investment exposure provided by listed infrastructure companies. Our hope is that this paper will aid in planning and implementing investment decisions.

1 Defining infrastructure

Infrastructure refers to all physical and organizational structures needed for the functioning and development of a society and its economy. Practitioners distinguish between "hard" and "soft" infrastructure. Hard infrastructure refers to the large physical networks necessary for the functioning of an industrial nation; whereas soft infrastructure refers to all the institutions which are required to maintain the economic, health and cultural and social standards of a country, such as healthcare and government. We define infrastructure as a set of 17 subsectors covering "hard" as well as "soft" infrastructure that are, in turn, summarized into five supersectors (see Figure 1).



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FIGURE 1: OVERVIEW OF INFRASTRUCTURE SECTORS AND SUPERSECTORS

Supersectors	Communication	Energy	Government outsourcing / social	Transportation	Utilities
Subsectors	Cable & satellite	Energy utilities	Correctional facilities	Air transportation	Waste management
	Data centers	Midstream energy	Hospitals	Passenger transportation	Water utilities
	Wireless		Postal services	Rail transportation	
	Wireless towers			Road transportation	
	Wireline			Water transportation	

The underlying index universe was selected by our business partner Revere Data. While Revere's approach is proprietary, the underlying criteria are related to a company's fundamental characteristics, the services it provides and the assets it uses to generate revenue.

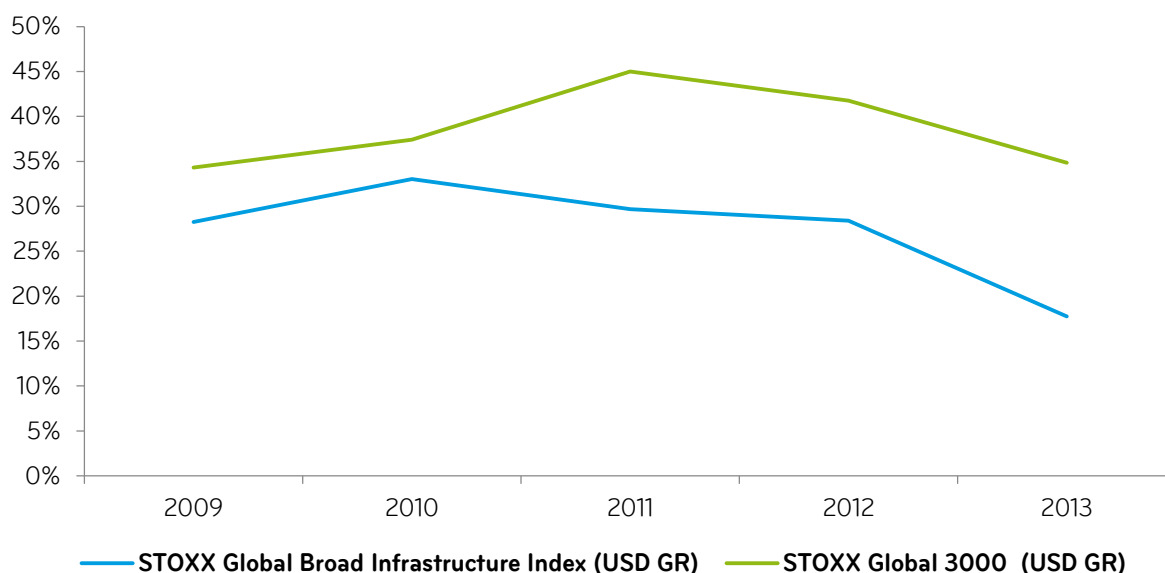
2 Infrastructure characteristics: low business risk, high dividend payout and high dividends

The principal characteristic of listed infrastructure companies is below-average business risk. Business risk refers to the chance that a company will not generate sufficient revenue to stay in operation. There are at least two reasons for this characteristic. First, infrastructure companies sell services that exhibit some degree of demand inelasticity. One can imagine that the demand for clean water or postal services is not heavily influenced by consumer preferences, for example. Second, many infrastructure companies have the advantage of operating in non-competitive business environments as a result of exclusive long-term contracts granted by local governments. The Manila Water Company, for instance, which operates in the Philippines, holds a 25-year concession agreement granting it exclusive rights to the use of land and facilities for the production, treatment and distribution of water, as well as the right to operate the sewer system. These types of exclusive contracts not only provide revenue protection for infrastructure companies but also frequently allow for price increases that are marked to inflation.

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Figure 2 takes an empirical look at the business risk of infrastructure companies. It highlights the variability in operating income, an important measure of business risk, for the constituents of the STOXX Global Broad Infrastructure Index relative to the STOXX Global 3000 Index. The figure shows that the variability of annual changes in operating income (measured by standard deviation) covering 2009 to 2013 is about 29% lower for infrastructure companies compared to the market. This is important because lower business risk can equate to lower cost of capital.

FIGURE 2: THREE-YEAR AVERAGE OF CROSS-SECTIONAL STANDARD DEVIATION OF YEARLY CHANGES IN OPERATING INCOME (2009-2013)



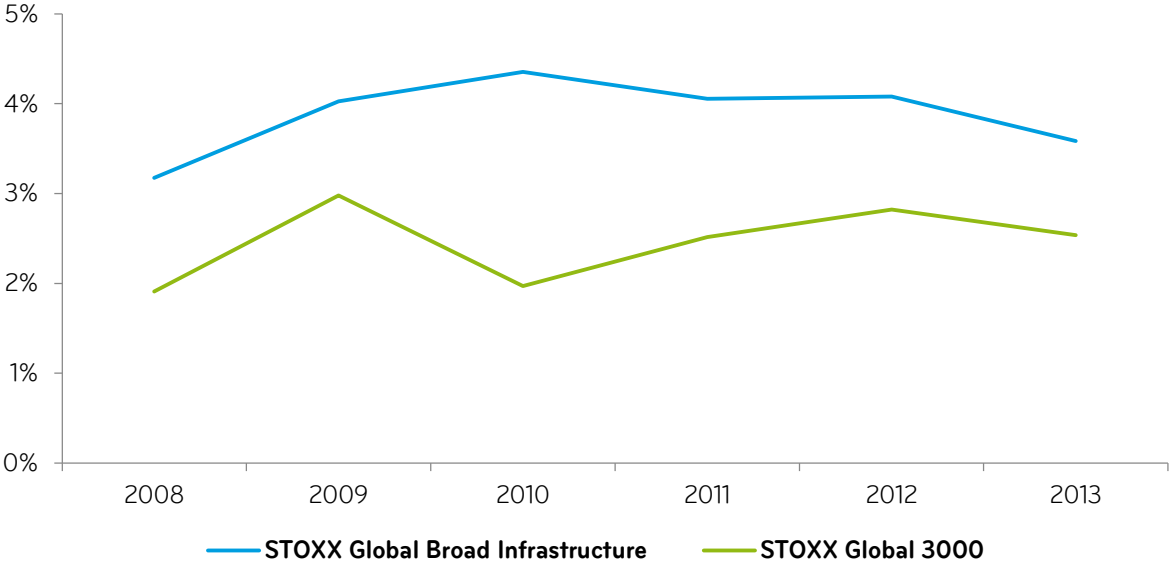
Source: Factset (2009 to 2013)

Infrastructure companies also have high operating leverage. Operating leverage refers to a firm's level of fixed costs relative to variable costs and can result in significant free cash flow when unit volumes increase. Railroads, for example, benefit when freight volumes increase on their rail systems and communication companies profit when more subscribers use their networks.

More importantly, from an investment perspective, operating leverage combined with low business risk allows infrastructure companies to support comparatively high dividend payout ratios. Figures 3 and 4 show the annual median dividend payout ratio and the annual dividend yield for the STOXX Global Broad Infrastructure Index and the STOXX Global 3000 Index. It clearly shows a comparatively high dividend payout ratio for infrastructure companies. The average payout is 19 percentage points higher for infrastructure companies than non-infrastructure companies. In addition, the dividend itself has averaged almost 4.0% over the past six years. The high dividend is a principal reason for the attractiveness of public infrastructure as an investment.

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FIGURE 3: ANNUAL DIVIDEND YIELD OF THE STOXX GLOBAL BROAD INFRASTRUCTURE INDEX VERSUS THE STOXX GLOBAL 3000 INDEX

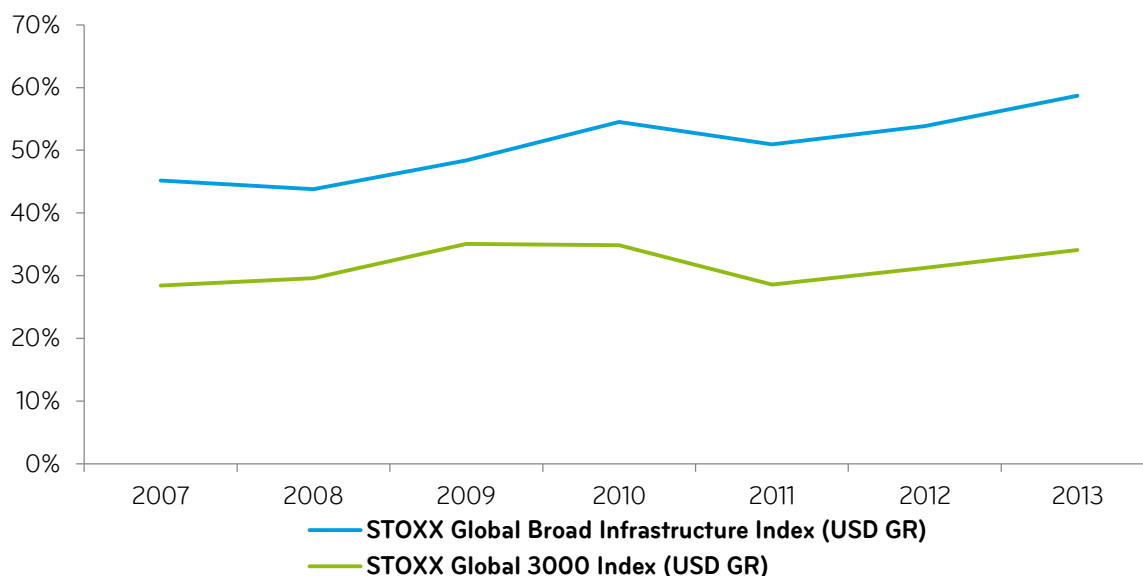


Source: STOXX data from 2008 to 2013



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FIGURE 4: MEDIAN YEARLY DIVIDEND PAYOUT RATIOS (DPR) WITH DPR DEFINED AS DIVIDENDS PER SHARE DIVIDED BY EARNINGS PER SHARE



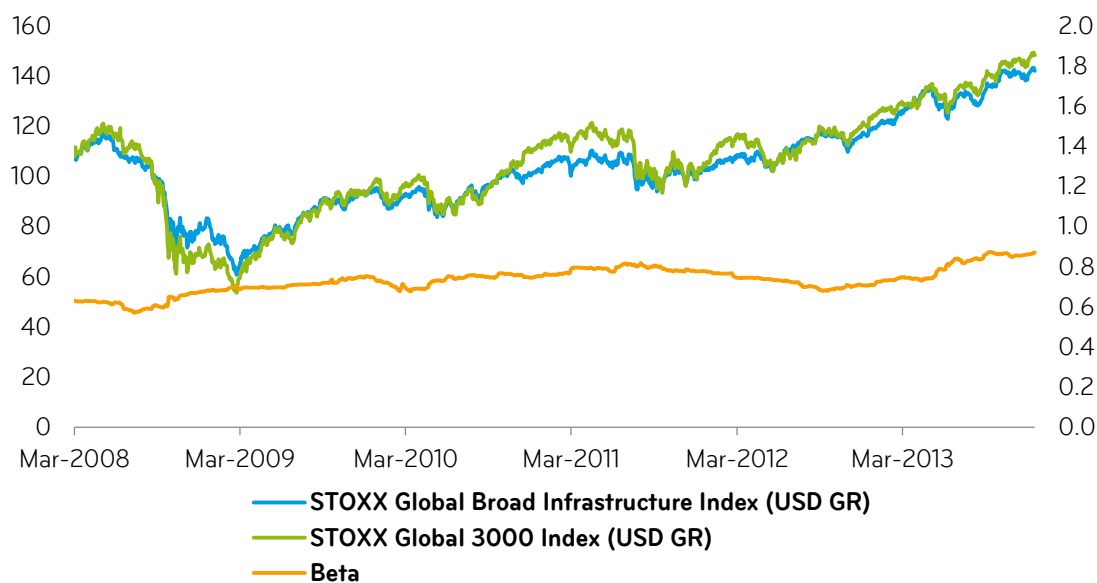
Source: STOXX data from 2007 to 2013

3 Investment, performance and risk

Low business risk and high dividend payments endow infrastructure companies with strong defensive investment characteristics. Figure 5 shows the beta and performance of the STOXX Global Broad Infrastructure Index relative to the STOXX Global 3000 Index. The average beta is 0.73 over the past six years, which is low for listed equities and indicates that infrastructure companies as a whole had less exaggerated price movements than that market, although the investment performance was equivalent. Empirical analysis further shows that listed infrastructure assets provide lower total risk compared to the global equity market.

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FIGURE 5: PERFORMANCE OF STOXX GLOBAL BROAD INFRASTRUCTURE INDEX VERSUS STOXX GLOBAL 3000



Source: STOXX daily data from Mar. 2008 to Jan. 2014

Compared to an annualized market volatility of 22.6% over the last six years, volatility for the infrastructure index was 17.8%, which is 21.0% lower. This significant decrease in volatility further underscores the low-risk characteristics of listed infrastructure assets as the total market index (TMI) includes about 8,000 companies and should provide much lower overall volatility compared to the infrastructure index that currently includes only 155 stocks.

4 Conclusion

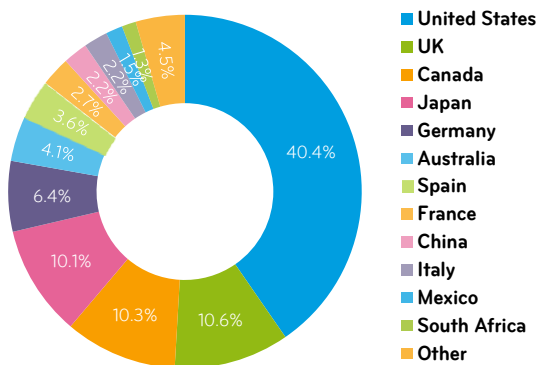
Do we have your attention? We hope this piece has at least clarified the unique investment exposure offered by listed infrastructure companies. They are stable cash flow generators with strong commercial models protected by significant barriers to entry and inelastic consumer demand. These properties make the STOXX Global Broad Infrastructure Index an appropriate benchmark for equity investors who have long-term saving needs and require strong stable income and the potential for capital appreciation over time. In addition, the relative low market exposure is beneficial for investors who want to increase diversification in their overall portfolios.

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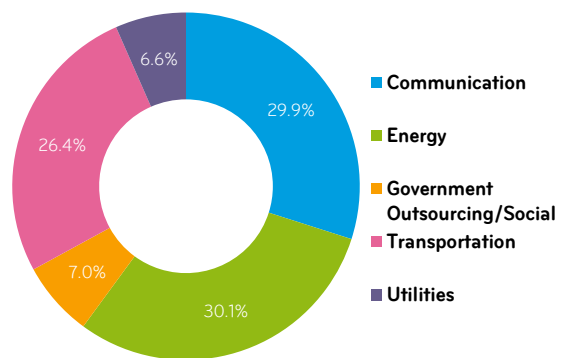
Appendix

COMPOSITION

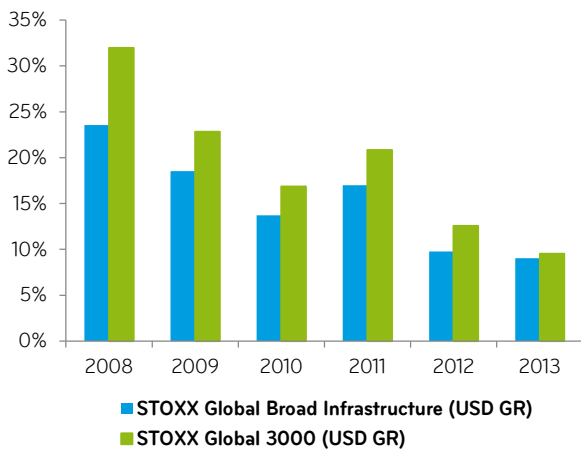
GEOGRAPHIC ALLOCATION



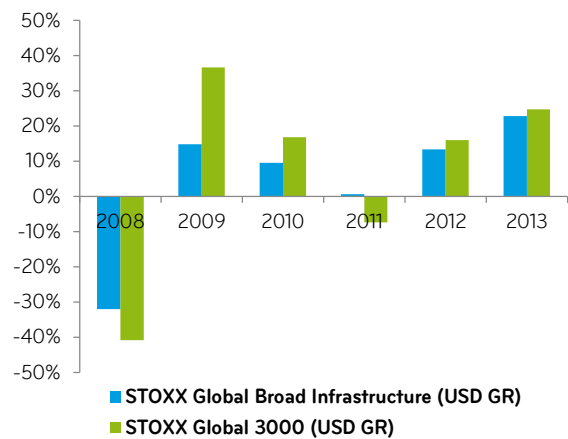
SUPERSECTOR ALLOCATION



VOLATILITY – ANNUALIZED VOLATILITY RETURNS (2008-2013)



PERFORMANCE – ANNUAL PERFORMANCE (2008-2013)



The views and opinions expressed in this paper are solely those of the author and do not necessarily represent the views and opinions of STOXX Ltd.

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About STOXX

STOXX Ltd. is a global index provider, currently calculating a global, comprehensive index family of over 6,000 strictly rules-based and transparent indices. Best known for the leading European equity indices EURO STOXX 50, STOXX Europe 50 and STOXX Europe 600, STOXX Ltd. maintains and calculates the STOXX Global index family which consists of total market, broad and blue-chip indices for the regions Americas, Europe, Asia/Pacific and sub-regions Latin America and BRIC (Brazil, Russia, India and China) as well as global markets.

To provide market participants with optimal transparency, STOXX indices are classified into three categories. Regular "STOXX" indices include all standard, theme and strategy indices that are part of STOXX's integrated index family and follow a strict rules-based methodology. The "iSTOXX" brand typically comprises less standardized index concepts that are not integrated in the STOXX Global index family, but are nevertheless strictly rules-based. While indices that are branded "STOXX" and "iSTOXX" are developed by STOXX for a broad range of market participants, the "STOXX Customized" brand covers indices that are specifically developed for clients and do not carry the STOXX brand in the index name.

STOXX indices are licensed to more than 500 companies around the world as underlyings for Exchange Traded Funds (ETFs), futures and options, structured products and passively managed investment funds. Three of the top ETFs in Europe and 30% of all assets under management are based on STOXX indices. STOXX Ltd. holds Europe's number one and the world's number three position in the derivatives segment.

In addition, STOXX Ltd. is the marketing agent for the indices of Deutsche Boerse AG and SIX, amongst them the DAX and the SMI indices. STOXX Ltd. is part of Deutsche Boerse AG and SIX. www.stoxx.com