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Social Themes in Index-Based Investing: Human Capital

Environmental, social, and governance (ESG) as an investment theme has held some clout in the market for a while, but it continues to evolve as an asset class. Historically, market participants either took a holistic view of the three combined factors or simply focused on the environmental component (e.g., low carbon). However, as sustainable investing is expanding into the mainstream, market participants have started looking at the governance and social elements.

Governance emerged as a key investment factor when the stock market crashed in 2008—illuminating the risks associated with poor governance policies. This theme has continued to grow as an investment factor and expand across asset classes. This has been illustrated by the launch of the [S&P Long-Term Value Creation \(LTVC\) Global Index](#) in 2016, which incorporates both governance and quantitative considerations into its methodology.

The social aspect, however, has been less thoroughly examined. This theme measures mentalities in the workplace (e.g., diversity management, human rights, etc.), relationships surrounding the community (e.g., corporate citizenship and philanthropy), and stakeholder analysis (customers, employees, all those affected by the presence of the entity). It includes criteria such as human capital development, corporate citizenship, and occupational health and safety.

Given the elements it covers, it's easy to see how the social area can be challenging to measure. While environmental factors can be captured through quantitative metrics such as carbon emissions, and analyses of governance can incorporate data required by regulations, the social component has neither clear metrics nor mandatory data associated with it.

S&P Dow Jones was able to capture at least one part of the social element—human capital—through collaboration with its research partner, RobecoSAM.

In response to increasing demand in the Japanese market, S&P Dow Jones Indices launched the [JPX/S&P CAPEX & Human Capital Index](#) in April 2016. The index is designed to measure the performance of companies in the Japanese equity market that meet certain liquidity thresholds and lead in capital expenditure efficiency and growth, as well as human capital investments.

The social aspect of ESG includes criteria such as human capital development, corporate citizenship, and occupational health and safety.

HOW DO WE MEASURE HUMAN CAPITAL?

To measure human capital, S&P Dow Jones Indices uses metrics from RobecoSAM's Total Sustainability Score that encompass human capital, including talent attraction & retention, labor rights, employee development, human rights, and employee turnover. These criteria address specific topics as they relate to human capital, such as the following:

- Ability to quantify and proactively manage investments in human capital;
- Gender equality;
- Companies' commitment to the human rights of their employees;
- Measurement of employee performance;
- Low employee turnover rates; and
- Implementation of long-term incentives.

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INDEX METHODOLOGY

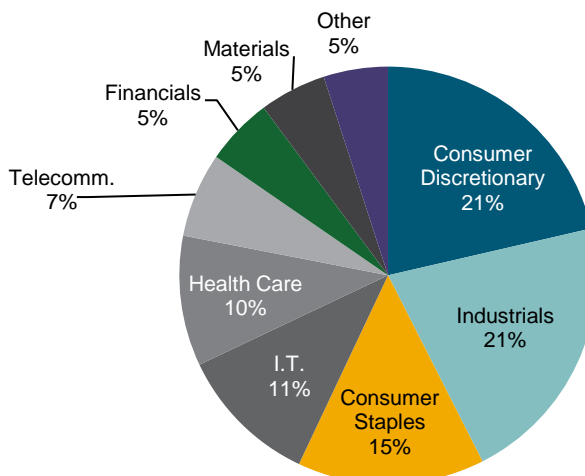
The constituent selection is as follows:

- Scores based on capex, R&D growth, capex revenue effect, and human capital are calculated for each company in the underlying universe and ranked in descending order;
- The top 180 companies are selected;
- Existing constituents ranked 181-200 are selected until the target count of 200 is reached; and
- If the target is still not met, then non-constituent companies are selected until the target is reached.

SECTOR BREAKDOWN

The sector breakdown of this index is somewhat in line with the Japanese market. For example, consumer discretionary and industrials tend to be the dominating sectors in the Japanese market and in the index. Interestingly, financials, which tends to be one of the largest sectors in Japan, has one of the smallest sector weights in the [JPX/S&P CAPEX & Human Capital Index](#) (see Exhibit 1).

Exhibit 1: Sector Breakdown



Source: S&P Dow Jones Indices LLC. Data as of Jan. 31, 2017. Chart is provided for illustrative purposes.

RISK/RETURN ANALYSIS

Exhibit 2 compares the [JPX/S&P CAPEX & Human Capital Index](#) with its benchmark, the TOPIX. The human capital index demonstrated higher annualized returns and lower annualized risk than the benchmark across all periods studied.

The index demonstrates a higher annualized return across all time periods, in addition to lower risk, when compared with the benchmark.

Exhibit 2: Risk/Return Analysis

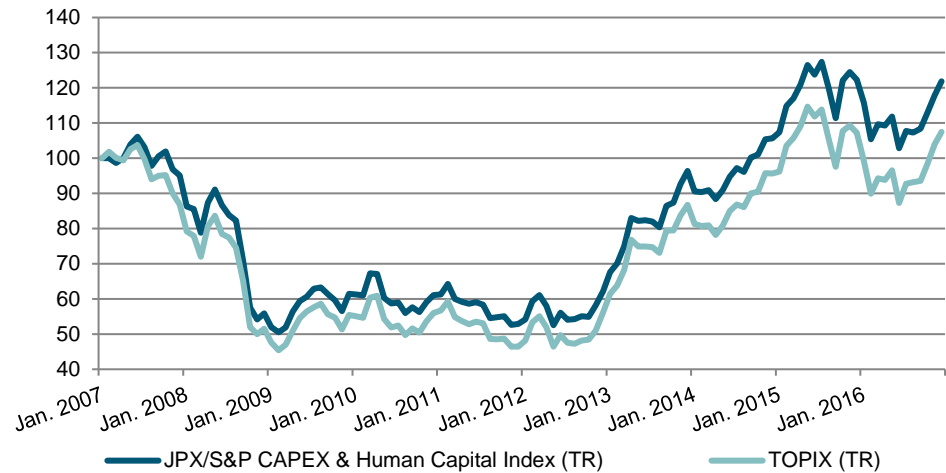
PERIOD	TOPIX (TR)	JPX/S&P CAPEX AND HUMAN CAPITAL INDEX (TR)
ANNUALIZED RETURN (%)		
3-Year	9.84	10.29
5-Year	17.46	17.55
7-Year	10.06	10.27
10-Year	0.75	1.97
ANNUALIZED RISK (%)		
3-Year	16.47	14.35
5-Year	18.27	16.07
7-Year	18.03	15.97
10-Year	19.39	17.79
TRACKING ERROR (%)		
3-Year		2.99
5-Year		3.28
7-Year		3.21
10-Year		3.61

Source: S&P Dow Jones Indices LLC. Data as of Jan. 31, 2017. Past performance is no guarantee of future results. Table is provided for illustrative purposes and reflects hypothetical historical performance. Please see the Performance Disclosure at the end of this document for more information regarding the inherent limitations associated with back-tested performance.

Tracking error was high, but this is unsurprising, as the index is not designed to closely track the benchmark and does not have any caps.

While the [JPX/S&P CAPEX & Human Capital Index](#) has historically mimicked the movements of the Japanese market (as illustrated by TOPIX), it has consistently outperformed its benchmark (see Exhibit 3).

Exhibit 3: Overall Performance

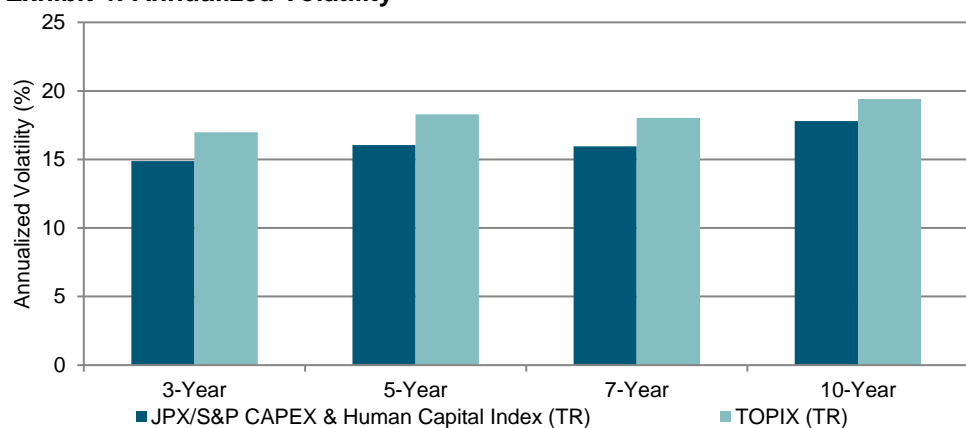


Source: S&P Dow Jones Indices LLC. Data as of Jan. 31, 2017. Past performance is no guarantee of future results. Chart is provided for illustrative purposes and reflects hypothetical historical performance. Please see the Performance Disclosure at the end of this document for more information regarding the inherent limitations associated with back-tested performance.

One of the main reasons ESG investing has become so popular is because many market participants view it as a risk hedge.

One of the reasons ESG investing has become so popular is because many market participants view it as a risk hedge. This is illustrated in Exhibit 4, which highlights the low volatility of the index relative to the Japanese market.

Exhibit 4: Annualized Volatility



Source: S&P Dow Jones Indices LLC. Data as of Jan. 31, 2017. Past performance is no guarantee of future results. Chart is provided for illustrative purposes and reflects hypothetical historical performance. Please see the Performance Disclosure at the end of this document for more information regarding the inherent limitations associated with back-tested performance.

CONCLUSION

The JPX/S&P CAPEX & Human Capital Index has behaved similarly to the TOPIX, but it has exhibited greater returns coupled with lower volatility.

As ESG investing continues to gain popularity, market participants have started to focus on the three underlying themes—environmental, social, governance. The social factor has proven to be the most challenging to measure, though parts of it are tracked by the [JPX/S&P CAPEX & Human Capital Index](#), which is designed to measure the performance of leading companies in the Japanese market, based on capital expenditure growth and efficiency, along with human capital using data provided by RobecoSAM.

The index has behaved similarly to the TOPIX, but it has exhibited greater returns coupled with lower volatility—a winning combination for many market participants. Going forward, we expect to see further exploration of the specifics of ESG-themed indices, in addition to a focus on the holistic factors.

PERFORMANCE DISCLOSURE

The JPX/S&P CAPEX & Human Capital Index was launched on April 27, 2016. All information presented prior to an index's Launch Date is hypothetical (back-tested), not actual performance. The back-test calculations are based on the same methodology that was in effect on the index Launch Date. Complete index methodology details are available at www.spdji.com.

S&P Dow Jones Indices defines various dates to assist our clients in providing transparency. The First Value Date is the first day for which there is a calculated value (either live or back-tested) for a given index. The Base Date is the date at which the Index is set at a fixed value for calculation purposes. The Launch Date designates the date upon which the values of an index are first considered live: index values provided for any date or time period prior to the index's Launch Date are considered back-tested. S&P Dow Jones Indices defines the Launch Date as the date by which the values of an index are known to have been released to the public, for example via the company's public website or its datafeed to external parties. For Dow Jones-branded indices introduced prior to May 31, 2013, the Launch Date (which prior to May 31, 2013, was termed "Date of introduction") is set at a date upon which no further changes were permitted to be made to the index methodology, but that may have been prior to the Index's public release date.

Past performance of the Index is not an indication of future results. Prospective application of the methodology used to construct the Index may not result in performance commensurate with the back-test returns shown. The back-test period does not necessarily correspond to the entire available history of the Index. Please refer to the methodology paper for the Index, available at www.spdji.com for more details about the index, including the manner in which it is rebalanced, the timing of such rebalancing, criteria for additions and deletions, as well as all index calculations.

Another limitation of using back-tested information is that the back-tested calculation is generally prepared with the benefit of hindsight. Back-tested information reflects the application of the index methodology and selection of index constituents in hindsight. No hypothetical record can completely account for the impact of financial risk in actual trading. For example, there are numerous factors related to the equities, fixed income, or commodities markets in general which cannot be, and have not been accounted for in the preparation of the index information set forth, all of which can affect actual performance.

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