

PERFORMANCE TRACKER

363

The number of basis points by which the S&P/IFCI Carbon Efficient Index has outperformed the benchmark.

UNCOVERING ALPHA FROM CARBON OPTIMISED INDICES

The S&P/IFCI Carbon Efficient Index has outperformed the underlying S&P/IFCI LargeMidCap benchmark since its launch in December 2009. *Trucost Analyst Rebecca MacLean investigates.*

Trucost data on the carbon efficiency of publicly listed companies is used to create carbon optimised passive indices designed to track the financial performance of parent indices. The S&P/IFCI Carbon Efficient Index is among carbon optimised indices that are in fact generating low volatility alpha relative to their benchmarks.

The S&P/IFCI Carbon Efficient Index was constructed around variations in the carbon intensity – measured as greenhouse gas emissions¹ relative to revenue – of emerging markets companies in the underlying S&P/IFCI LargeMidCap Index. Stocks were rebalanced within sectors to carbon optimise the index, overweighting companies that are carbon efficient relative to industry peers, and underweighting those that are more carbon intensive, while maintaining similar exposure to other factors. Carbon-intensive indices are designed to reduce investment exposure to carbon-intensive companies – mitigating risks from carbon costs – while maintaining a low tracking error through sector and country neutrality.²

Financial outperformance

As of March 2012, the S&P/IFCI Carbon Efficient index is 32% less carbon intensive than the S&P/IFCI LargeMidCap Index. Although tracking error has been low (annualised tracking error since launch is 1.06%), the S&P/IFCI Carbon Efficient index has outperformed the benchmark by 363 basis points, beating the benchmark 18 out of the past 28 months (see Chart 1 on p13).

Table 1: Performance data – S&P/IFCI Carbon Efficient Index vs. S&P/IFCI LargeMidCap Index

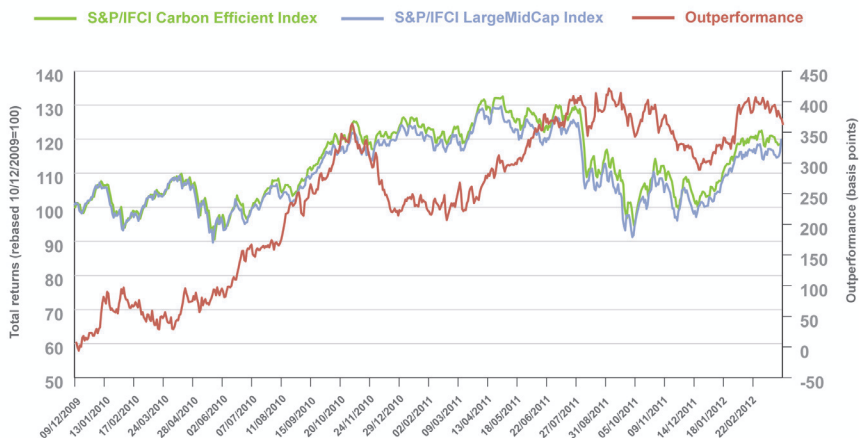
	S&P/IFCI Carbon Efficient Index	S&P/IFCI LargeMidCap Index	Outperformance
Carbon footprint (tCO ₂ e/US\$ mn revenue)	413	608	-32%
1 year returns	-7.26%	-8.37%	1.1%
2 year returns	12.10%	9.06%	3.04%
Returns since launch	19.80%	16.17%	3.63%
Annualised returns since launch	8.20%	6.76%	1.44%
Annualised volatility since launch	24.34%	24.34%	

With the emergence of measures to tackle climate change, such as carbon regulations, emissions trading and taxes, the strategy could be expected to outperform in the long term. However, limited carbon pricing at present means financial outperformance of the index is not due to the internalisation of carbon costs, but rather points to the possibility of carbon efficiency as a proxy for energy efficiency, natural resource use and good governance.

Data as of 27 March 2012 Source: Standard & Poor's and Trucost

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Chart 1: Total return performance of S&P/IFCI Carbon Efficient index and S&P/IFCI Large-Mid Cap Index from 12/2009- 3/2012



Source: FactSet

Attribution analysis

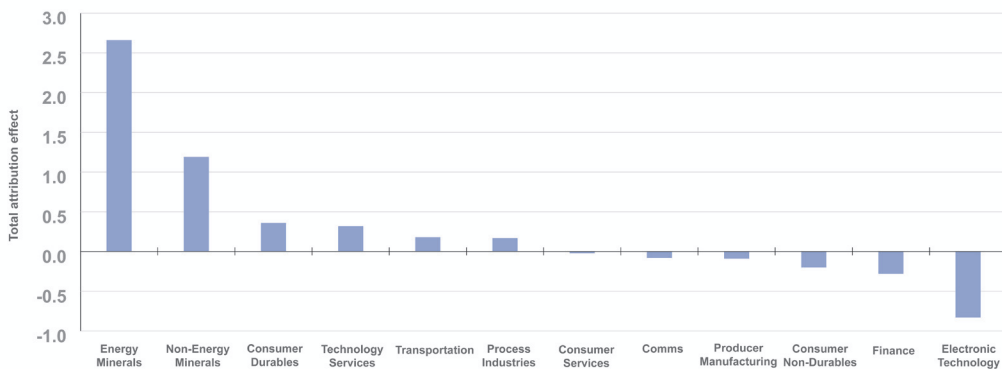
The S&P/IFCI Carbon Efficient Index is sector and country neutral so all of the outperformance comes from the stock selection through carbon optimisation. Attribution analysis shows that the six sectors below contribute most to variance in the financial performance of the index relative to its benchmark (see Chart 2).

The non-Energy Minerals sector in the S&P/IFCI Carbon Efficient index outperformed the benchmark by 119 basis points from December 2009 to end of March 2012 and 46% of this effect was due to stock selection in the Steel sub-sector. Table 2 on p13 highlights key examples of how adjustment on

account of intra-sector carbon efficiency has contributed to the outperformance of the S&P/IFCI Carbon Efficient index – some of the relatively carbon-intensive steel companies, which are underweight compared with the parent Index, achieved relatively low returns.

In the Energy sector, the S&P/IFCI Carbon Efficient is less exposed to some carbon-intensive companies that have underperformed. Reliance Industries Ltd, the Indian oil exploration and production company and owner of the world’s largest refining complex, had the third-highest contribution to the S&P/IFCI Carbon Efficient Index outperformance (of 0.27% since launch). The company had a carbon intensity of 615 tCO₂e/US\$ mn (ranked 21 out of 26 oil refining/marketing companies), is underweight in the S&P/IFCI Carbon Efficient Index by -0.45% compared to the benchmark and has had a negative return of -36.35% since the Index launch. The Indian Government has ordered Reliance Industries to reduce fossil fuel consumption by 2015 as part of an energy-saving programme.³

Chart 2: Total sector attribution effect (December 2009-March 2012)



Carbon hedge

Investors’ exposure to carbon-intensive companies is generally greater when investing in emerging market indices as they tend to have larger carbon footprints than developed market indices. As of February 2012, the S&P/IFCI LargeMidCap Index was 63% more carbon intensive than the MSCI World Index, mainly due to higher intra sector⁴ carbon intensity of stocks. As the above demonstrates, a carbon

Table 2: Steel sector carbon and financial performance

	Carbon footprint (tCO ₂ e/US\$ mn revenue)	Carbon efficiency rank in sector	Average Weight S&P/IFCI Carbon Efficient Index	Average Weight S&P/IFCI LargeMid-Cap Index	Average weight difference	Total Returns	Total attribution effect
POSCO	1,374	14/38	0.41%	0.84%	-0.44%	-27.49%	0.22%
Kumba Iron Ore Ltd.	342	1/38	0.41%	0.13%	0.29%	137.44%	0.20%
Gerdau SA COSG Pref	963	10/38	0.12%	0.25%	-0.13%	-40.94%	0.08%
Companhia Siderurgica Nacional	1,911	17/38	0.20%	0.26%	-0.06%	-38.60%	0.06%
Jindal Steel & Power Ltd.	7,359	38/38	0.07%	0.14%	-0.07%	-31.43%	0.04%
Steel sector	2,416*		4.96%	6.01%	-1.05%	-11.18%	0.74%

*Average for sector

efficient tilt on a mainstream emerging markets index designed to track an underlying benchmark can bring about some material and consistent financial outperformance. It is not possible to conclude that there is causality between carbon footprint adjustment and outperformance but the above results do suggest a correlation and attribution analysis can identify key subsectors and companies that contribute to variance.

Furthermore, the results identify an opportunity to invest in a free carbon hedge against future climate and energy regulation. Institutional investors have urged the European Central Bank and Bank of England to investigate collective exposure to high-carbon investments through key indices and loan books that might pose a systemic risk to the financial system. The analysis explores the opportunity for investors to mitigate against this factor without significantly altering portfolio risk.

Disclaimer

Sources: S&P Indices, Factset and Trucost Plc.

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