Low carbon credit performance: May-day or opportunity?

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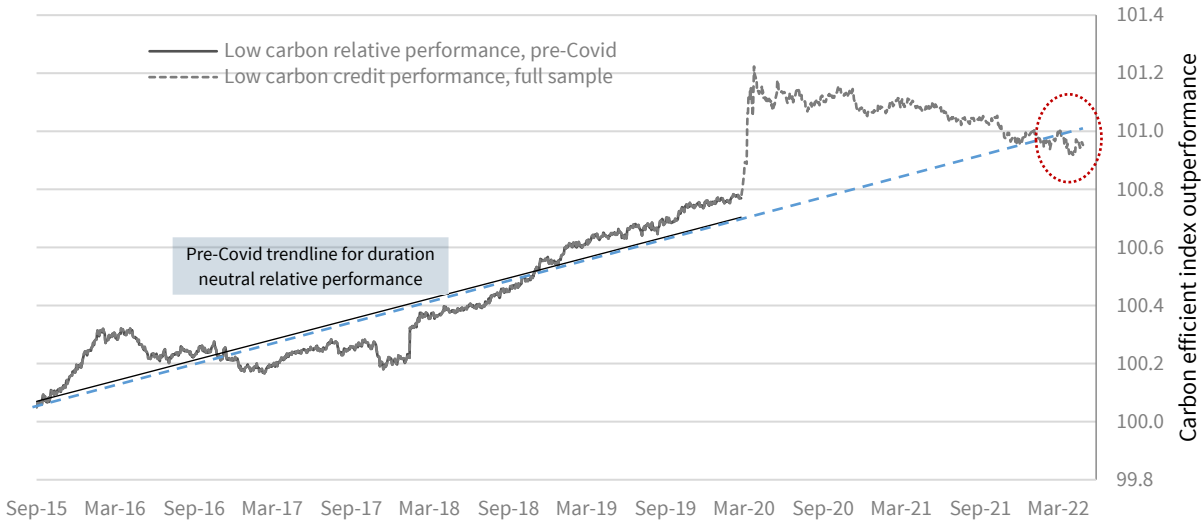
Recent low carbon credit performance relative to standard credit has been negative but still relatively contained, as per our cash index studies based on the ECOBAR model and the S&P500 IG bond index.[1] On a duration neutral basis, illustrated in Figure 1, one could argue that the underperformance as of recent weeks has brought low carbon outperformance back to the pre-Covid long term trend line. Pairing this technical 'support' level with an investment hypothesis that high-carbon news flow could turn slightly less positive – for example, we note various discussion around windfall taxes on energy companies[2] – **this might be a tactically opportune moment to increase relative exposure to low carbon credit.[3]**

Figure 1. Relative performance index of the S&P500 IG carbon efficient index vs the S&P500 IG bond index, with base Sep 2015 and with equal duration exposure in the indices. Source: AFII, S&P Global.



[1] Refer to "Low carbon credit performance: 2015-2020", AFII, 27 Jan 2021, for a methodology overview. This analysis is based on our ECOBAR model as implemented through a number of S&P bond indices. More detail below.

[2] See, for example, "Draghi to extend Italian windfall tax on energy groups", Financial Times, 2 May 2022. Some proposals, such as in the UK, have been pushed back, but we believe this discussion will continue as inflationary pressures rise and oil/gas company profits soar (c.f. "Shell Posts Record Profit on Soaring Oil and Gas Prices", Bloomberg, 5 May 2022).

[3] For a reference to an earlier discussion on green beta positioning in bond sell-offs, see "When others are fearful, be greeny", Responsible Investor, 18 Mar 2020. Also note that, as discussed in "UnFortumate: iTraxx Main S35 vs ESG version", AFII, 16 Mar 2022, in Europe, the ESG version of the main credit derivatives index continues to outperform its standards version. iTraxx Main S35 in its standard version now trades at 75bps whereas the ESG version is at 49bps. The spread at inception of the index was around 3bps, whereas it is now 26bps..

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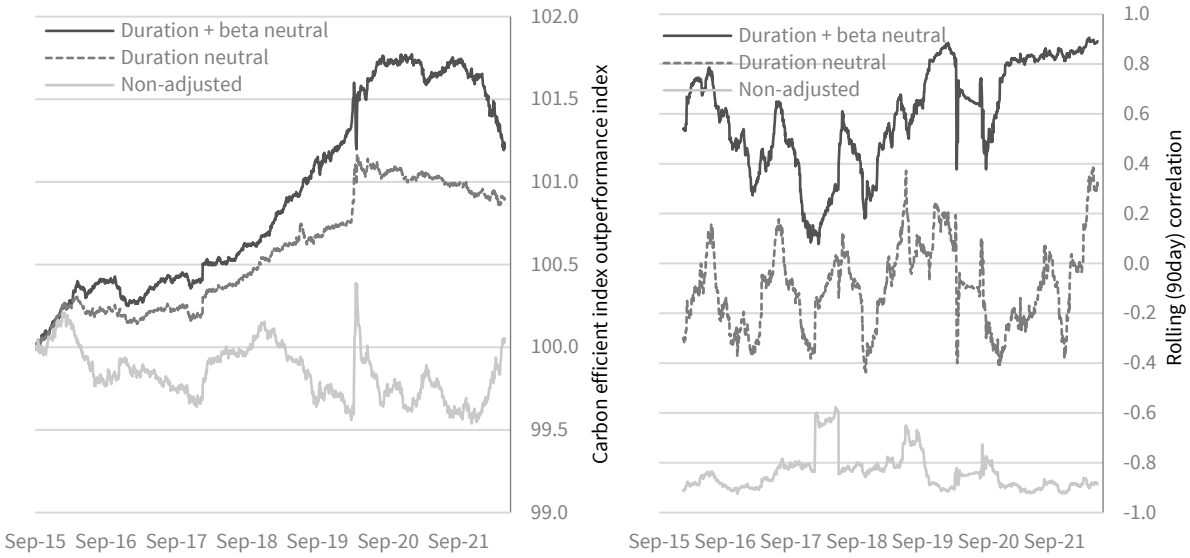
Further analysis

Since our latest update, the carbon efficient ("low carbon") cash bond index has underperformed the traditional counterpart by 4.7/34bp in spread/return terms,[4] and on a fully duration and beta neutral basis (solid line in Given total index volatility - equivalent index returns are in the region -12% over the same period - and the geo-political/energy market back-drop, this seems quite contained.

Indeed, as illustrated by the botton grey line in Figure 2, the plain index differential actually turned in favour for the low-carbon investors over 2022, as the low-carbon index had a lower duration going into the recent sell-off. Over the full sample, the annual excess return on the duration and beta neutralized low carbon vs traditional index is 18bp per annum with a Sharpe of 0.90.

From a technical standpoint, we note that the duration neutral *relative* performance (dotted line in Figure 2) appears uncorrelated to the underlying indexes, but the duration + market beta neutral picks up high correlation with the underlying. The full-sample correlation in the duration neutral case is -0.06 and for the duration+beta neutral 0.68. We illustrate the time-varying nature of these numbers in the right hand panel of Figure 2. We will study these correlations more closely in future work. The duration neutral relative index has generated returns of 13.4bps per annum on average, with an annualized Sharpe ratio of 0.88. Thus, given the low correlation with the underlying index, the duration neutral index does seem like a strong candidate to use rather than the duration and beta neutral index.

Figure 2. (Left) Relative return index of carbon efficient index vs standard index with varying weighting methodologies/adjustments. (Right) Rolling 90-day correlation between respective relative return index and the standard S&P500 IG bond index. Source: AFII.



[4] Refer to "Low carbon credit performance: 2015-2020", AFII, 27 Jan 2021, for a methodology overview. As a reminder, the low carbon relative performance index is constructed by using an identical set of issuers (based on the S&P IG corporate bond index) but reweighting portfolio weights using the ECOBAR methodology and a duration and spread beta neutral weighting scheme. The S&P bond indices are available: carbon-efficient and traditional index.. The indexes have been running live since 2018. The key technical document for the underlying ECOBAR model is "Credit alpha and CO2 redution: A portfolio manager approach", Ulf Erlandsson/SSRN, Apr 2017.

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