

# Dissecting Green Returns: 2023 Data Update

April 8, 2024

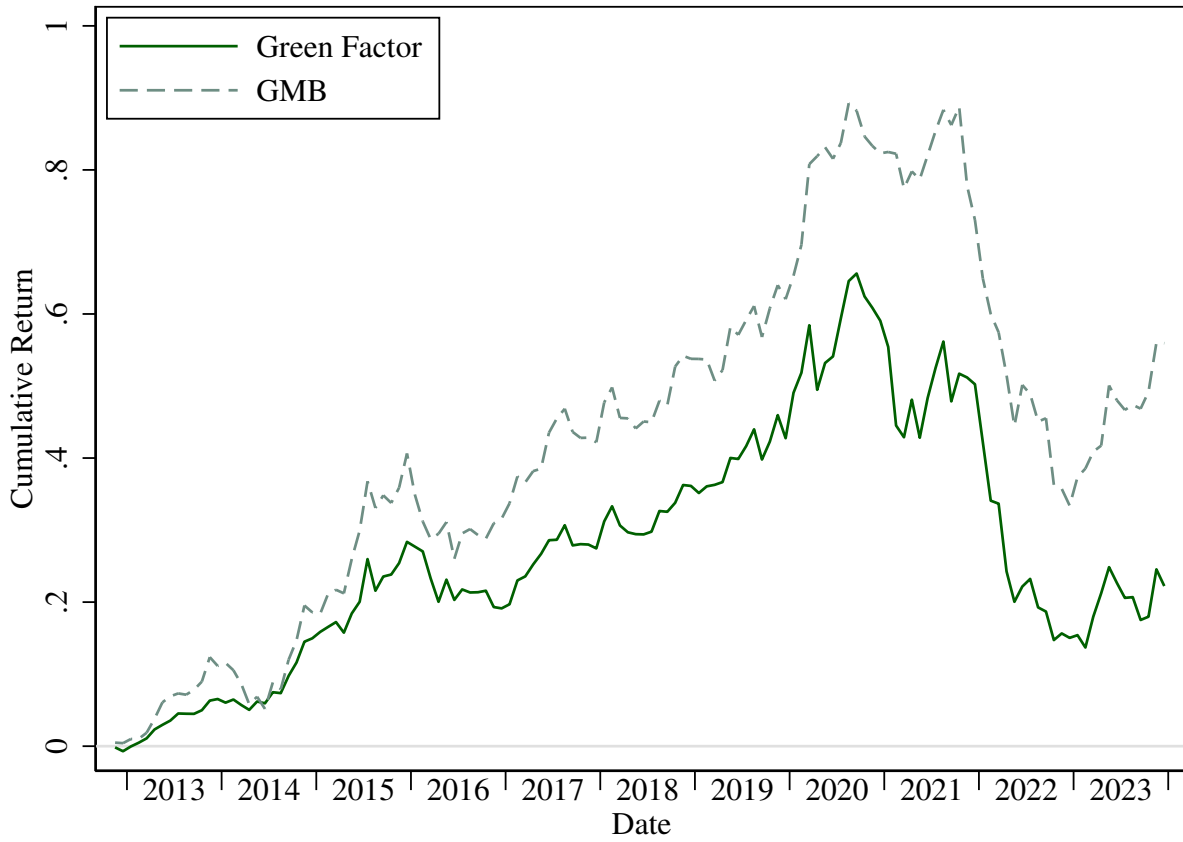
This document accompanies the data file “dissecting\_green\_update\_2023.csv”, which extends the GMB and green factor series introduced in the paper “Dissecting Green Returns” (Pastor et al., 2022). If you use these data, please cite the following work:

Pástor, Ľuboš, Robert F. Stambaugh, and Lucian A. Taylor, 2022, Dissecting green returns, *Journal of Financial Economics* 146, 403–424.

To extend the data through December 2023, we update the datasets used in the calculation of the original series of the paper. We downloaded the MSCI and CRSP data on March 20, 2024. Additionally, we downloaded Compustat data and Fama/French 3 Factors data on March 24, 2024.

Variable definitions:

- **month:** Monthly date variable, ranging from January 2009 to December 2023.
- **GMB:** As defined in “Dissecting green returns”, this is the green-minus-brown (GMB) spread between the return of the value-weighted portfolio of stocks in the top third of environmental greenness and in the bottom third. For comparison, this series is plotted through 2020 in Figure 10 of Pastor et al. (2022).
- **GMB\_green and GMB\_brown:** The returns on the green and brown legs of the GMB return. These returns are plotted in Figure 3 of Pastor et al. (2022).
- **GMB\_ind\_adj:** Industry-adjusted GMB return. This return series is plotted through 2020 in Figure 8 of Pastor et al. (2022).
- **Green factor:** As defined in “Dissecting green returns,”, the green factor is the return on a portfolio that goes long green and short brown stocks, where the stocks are weighted by their greenness. For comparison, this series is plotted through 2020 in Figure 10 of Pastor et al. (2022), albeit with a different scaling. As we explain in Section 7.1 of the paper, the green factor can be multiplied by any positive scalar without affecting the green factor’s pricing ability. The paper multiplies the green factor by a scalar that ensures the green factor’s monthly volatility matches that of GMB over the sample period. The data posted online and plotted below rescale the green factor by the ratio of GMB’s volatility to the factor’s volatility, where both volatilities are computed over the period November 2011–December 2023. The user is welcome to rescale the green factor by a positive scalar of his/her choosing; the factor’s pricing ability will not be affected.



**Figure 1. Cumulative returns on green factor and GMB.** This figure is comparable to Figure 10 in Pastor et al. (2022).