

## Comment on Hasler (2022)

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The goal of all factor models, including Fama and French (1993), is to define a set of factors that best captures expected returns on a wide range of interesting portfolios. Hasler's (2022) exercise does not address this goal. As a result, his comparisons of different definitions of *HML* are difficult to evaluate. Is it good or bad news for our *HML* that its average return is higher than those of most of his alternatives?

One of Hasler's main arguments is that the average return on our *HML* is somehow "biased". We think what he means is that the sampling error of the in-sample mean of our *HML* is positive because it is near the top of the distribution of average returns of the alternatives he considers. In fact, the spread of the average return on our *HML* over the average return on his alternatives is similar in and out of sample. The difference between the average premium on our *HML* and the average of his 95 alternatives is 0.08% ( $t = 1.72$ ) in sample, 0.07% ( $t = 1.34$ ) before our sample, and 0.05% ( $t = 0.66$ ) after our sample. The  $t$ -statistics, which account for the correlations across the alternatives, say that even the in-sample difference is not reliably different from zero. And the similarity of the in-sample, pre-sample, and post-sample differences says there is no evidence that the in-sample estimate of our *HML* premium is biased.

	In-Sample			Pre-Sample			Post-Sample		
	FF	Hasler	Diff	FF	Hasler	Diff	FF	Hasler	Diff
Ave	0.39	0.31	0.08	0.40	0.33	0.07	0.15	0.10	0.05
$t$ -stat	2.87	2.13	1.72	1.95	2.90	1.34	0.86	0.55	0.66

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