Table 1: Granger Causality tests. The volatility series are in levels and are quarterly ranging from October 1992 to June 2024. Granger causality results are from the SSR based F-test with 4 lagged quarters.

Decile	$\sqrt{H_{ii}} \Rightarrow \sqrt{H_{ie}}$	$\sqrt{H_{ie}} \Rightarrow \sqrt{H_{ii}}$
1	495.5744	8.1844
	(0.0000)****	(0.0000)****
2	0.9632	61.1280
	(0.4307)	(0.0000)****
3	30.3265	15.5039
	(0.0000)****	(0.0000)****
4	1.7093	6.2638
	(0.1530)	(0.0001)****
5	0.8505	2.3117
	(0.4962)	(0.0621)*
6	58.5093	40.0344
	(0.0000)****	(0.0000)****
7	3.5682	2.7466
	(0.0089)***	(0.0319)**
8	9.8772	18.9940
	(0.0000)****	(0.0000)****
9	2.4967	4.1224
	(0.0468)**	(0.0038)***
10	5.0288	97.6406
	(0.0009)****	(0.0000)****