

Supplementary Material

Time-varying relation between oil shocks and European stock market returns*

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Here we present some results that support the findings reported in the main text, but that we do not submit for publication. As Primiceri (2005) warns, posterior inference may be affected by the choice of k_Q , k_S and k_W . Thus, as a robustness check, we also compute posterior inference using alternative values for k_Q , k_S and k_W . Specifically, following Primiceri (2005), we consider all possible combinations of $k_Q = \{0.01; 0.05; 0.1\}$, $k_S = \{0.05; 0.1; 0.5\}$ and $k_W = \{0.005; 0.01\}$. Table C.1 presents the different combinations considered.

We can observe that the results are very similar to those of our baseline specification presented in the main text (case 4 here).

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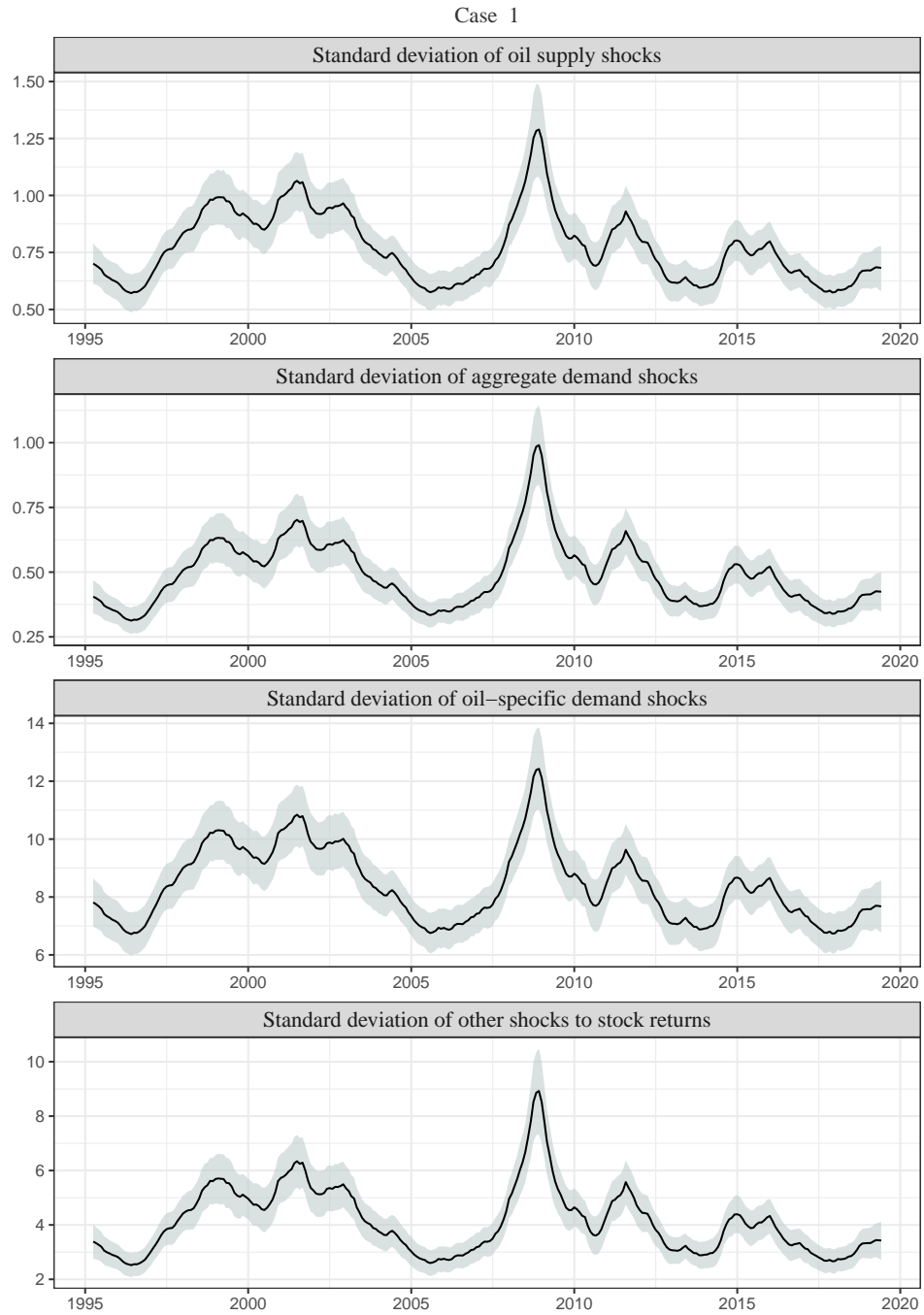
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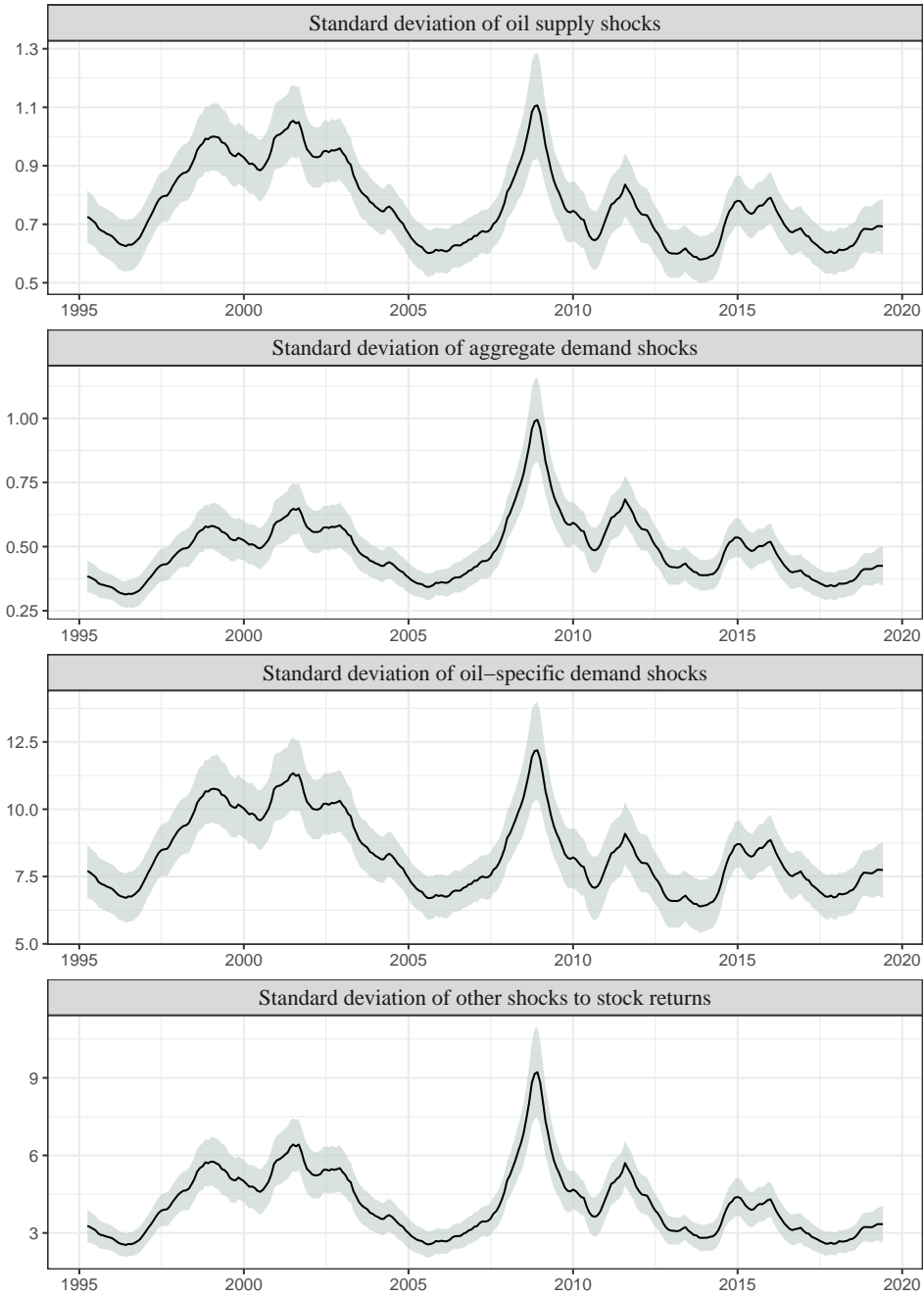
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Table S1: Robustness checks			
Case	k_Q	k_S	k_W
1	0.01	0.05	0.005
2			0.01
3		0.1	0.005
4			0.01
5		0.5	0.005
6			0.01
7	0.05	0.05	0.005
8			0.01
9		0.1	0.005
10			0.01
11		0.5	0.005
12			0.01
13	0.1	0.05	0.005
14			0.01
15		0.1	0.005
16			0.01
17		0.5	0.005
18			0.01

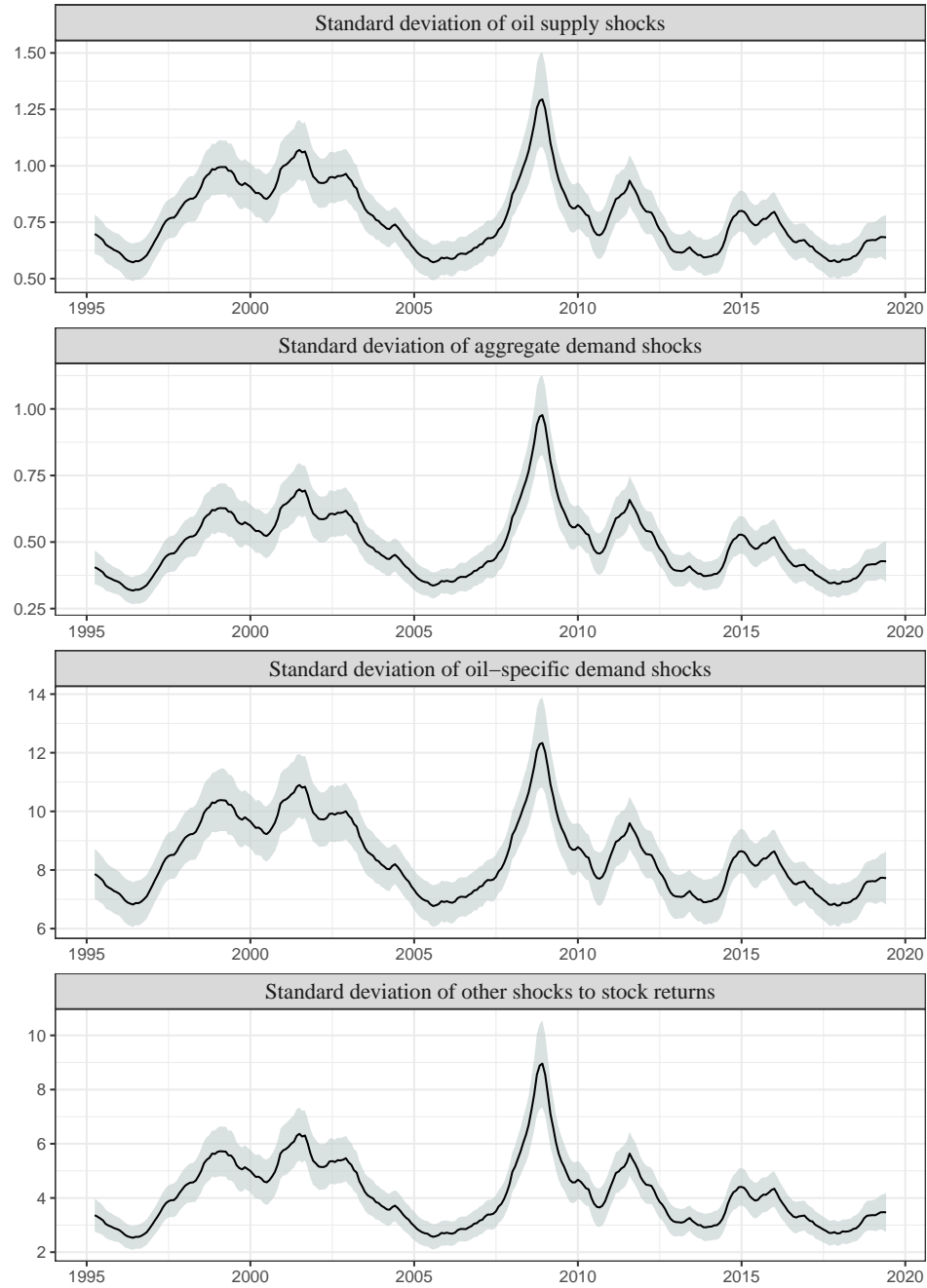
Figure S1: Standard deviations of structural shocks



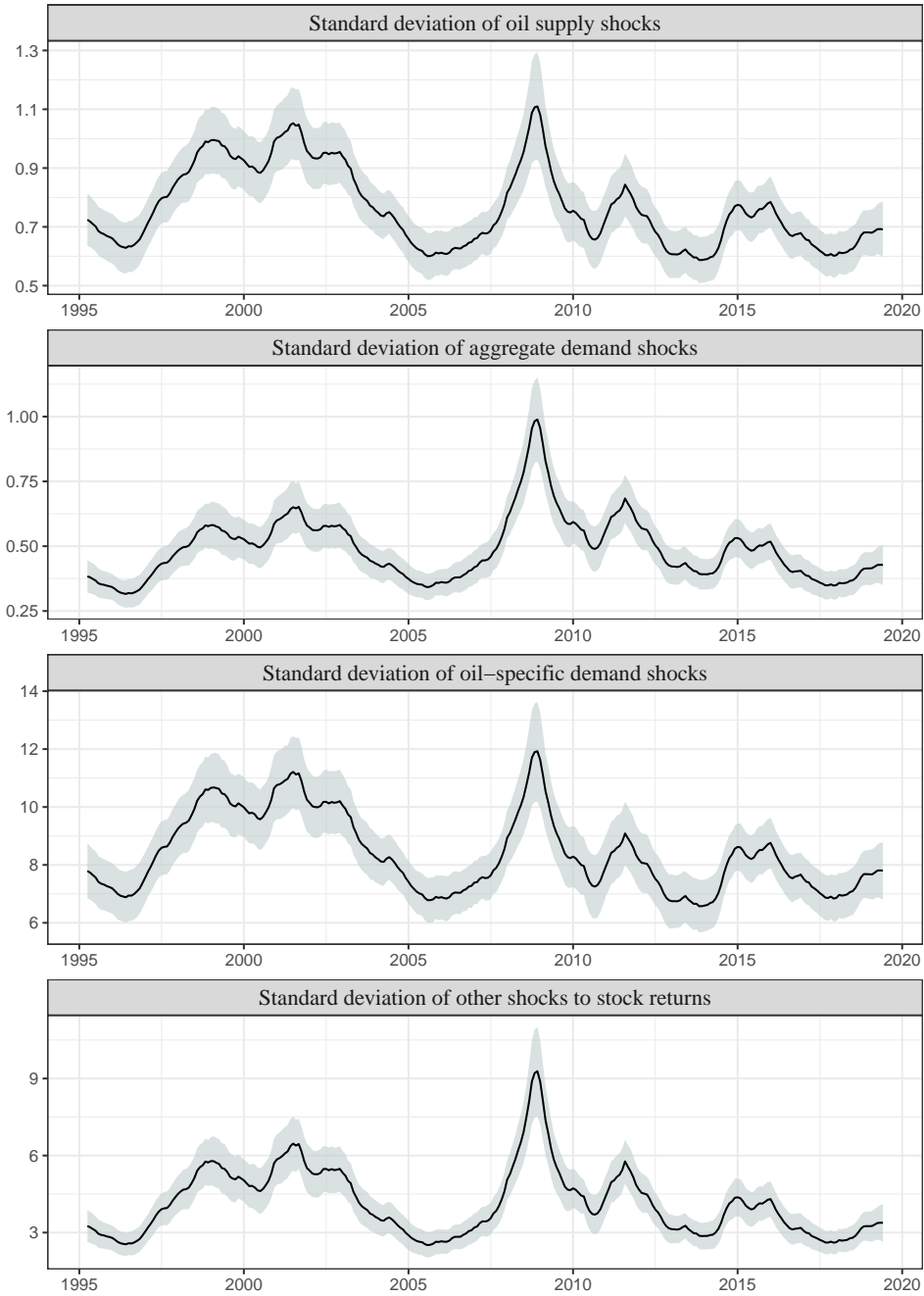
Case 2



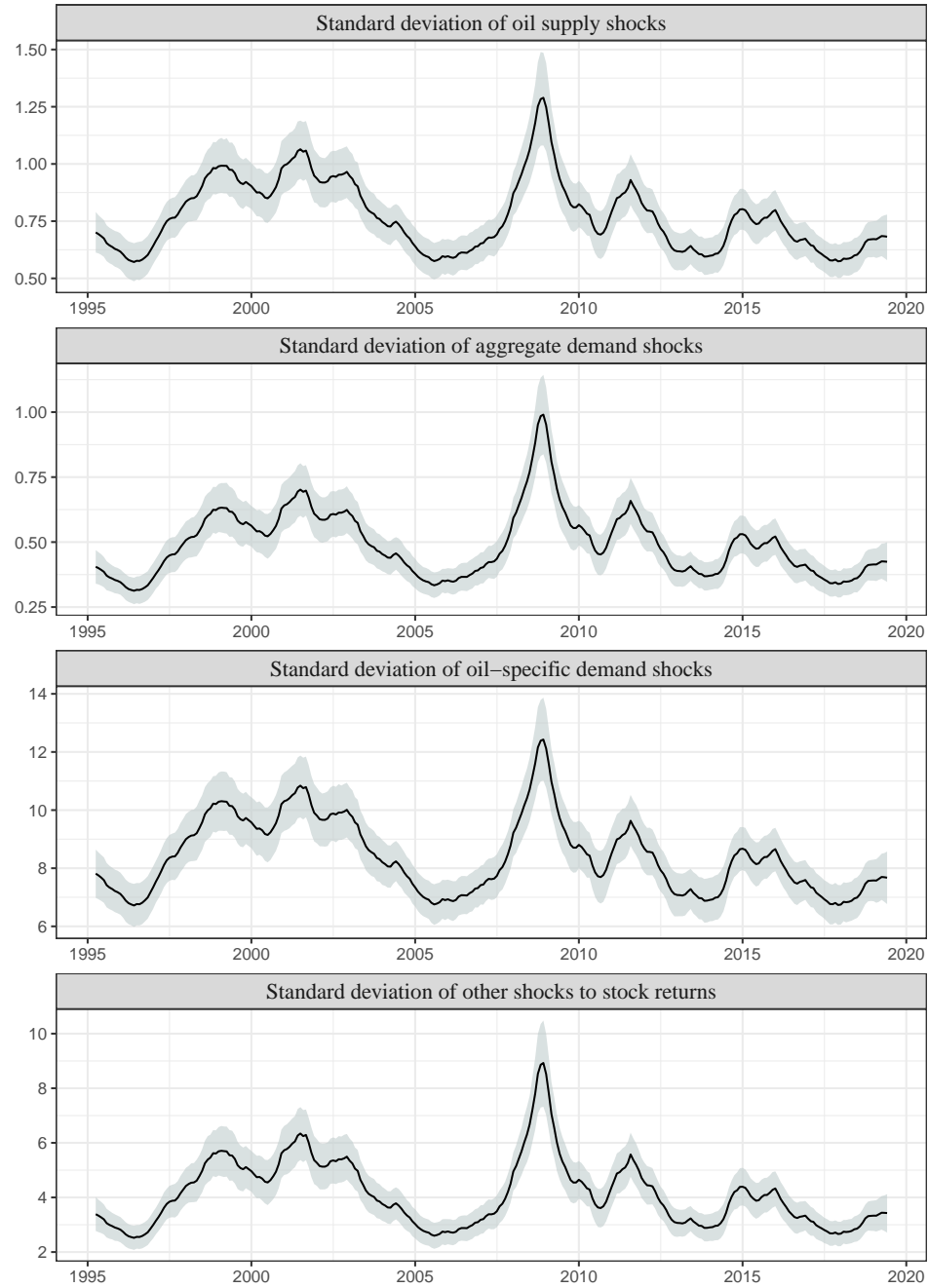
Case 3



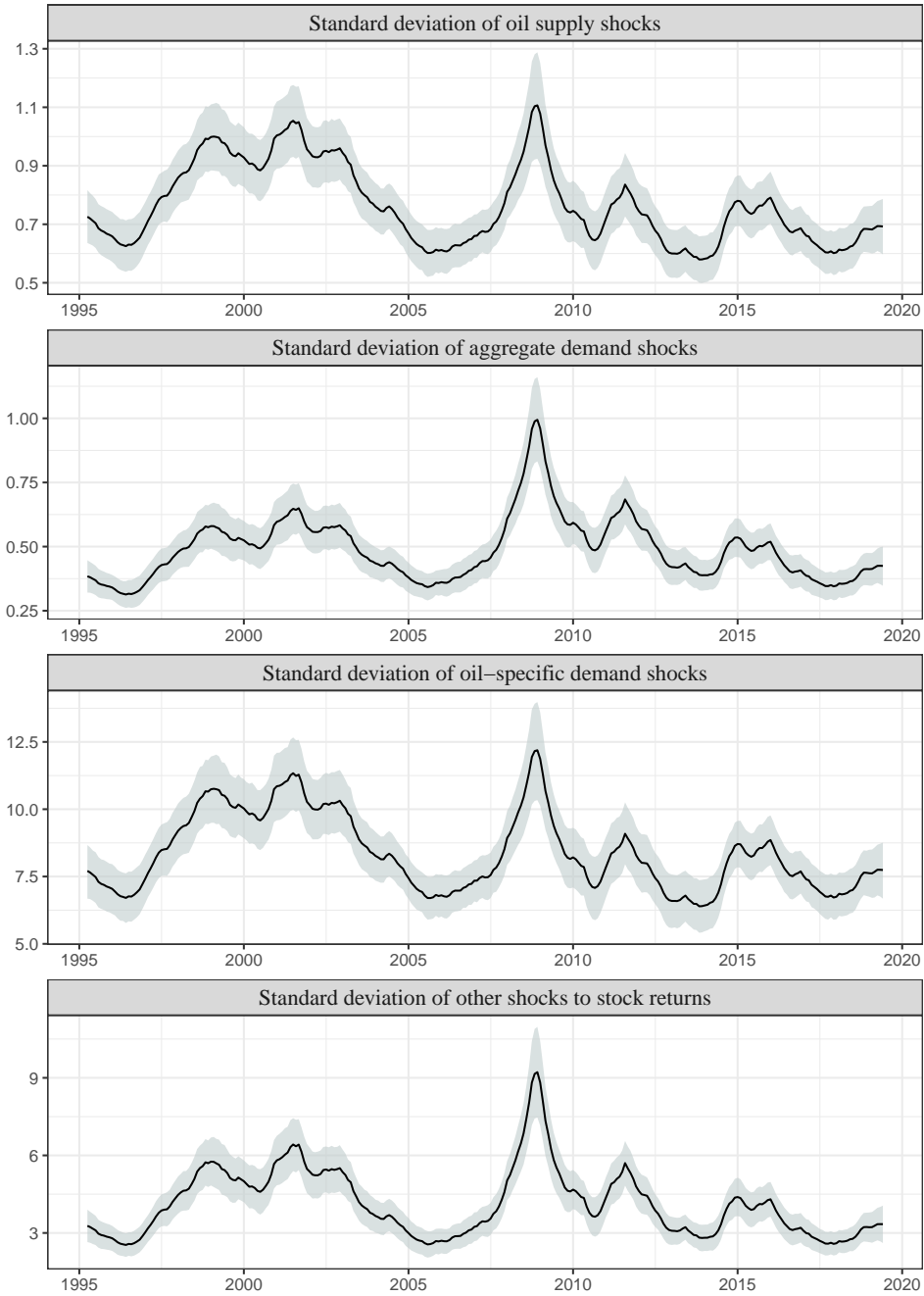
Case 4



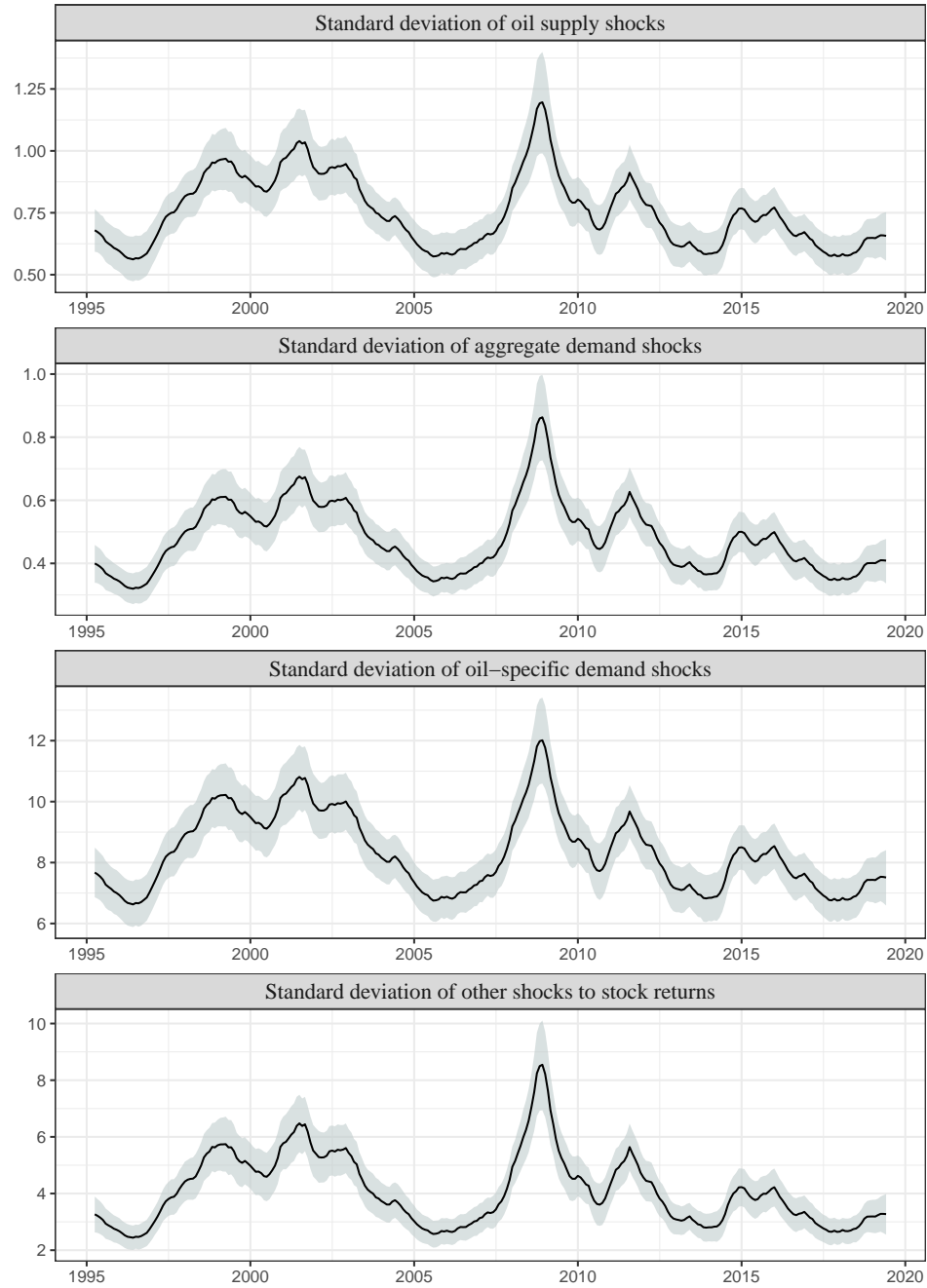
Case 5



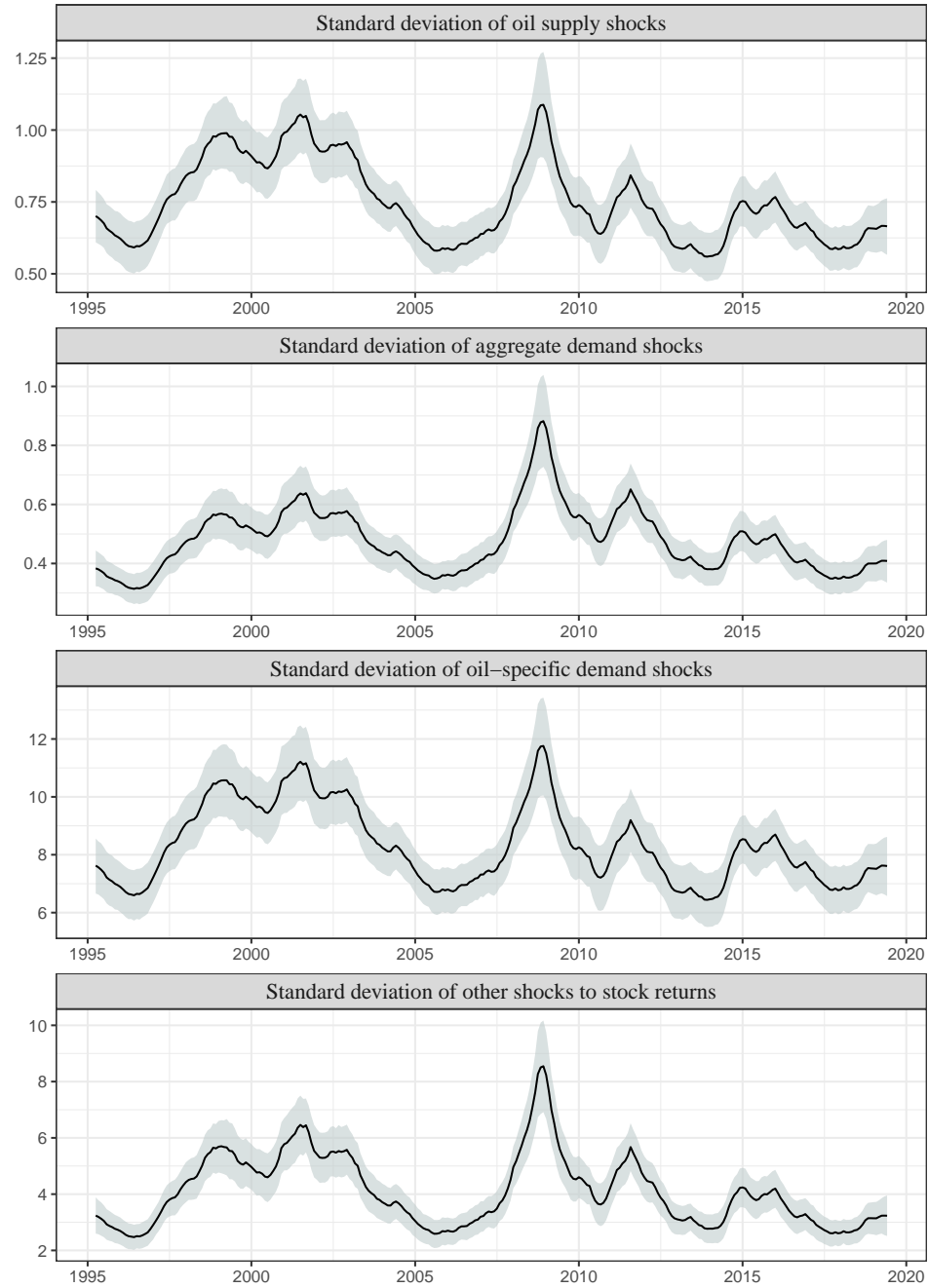
Case 6



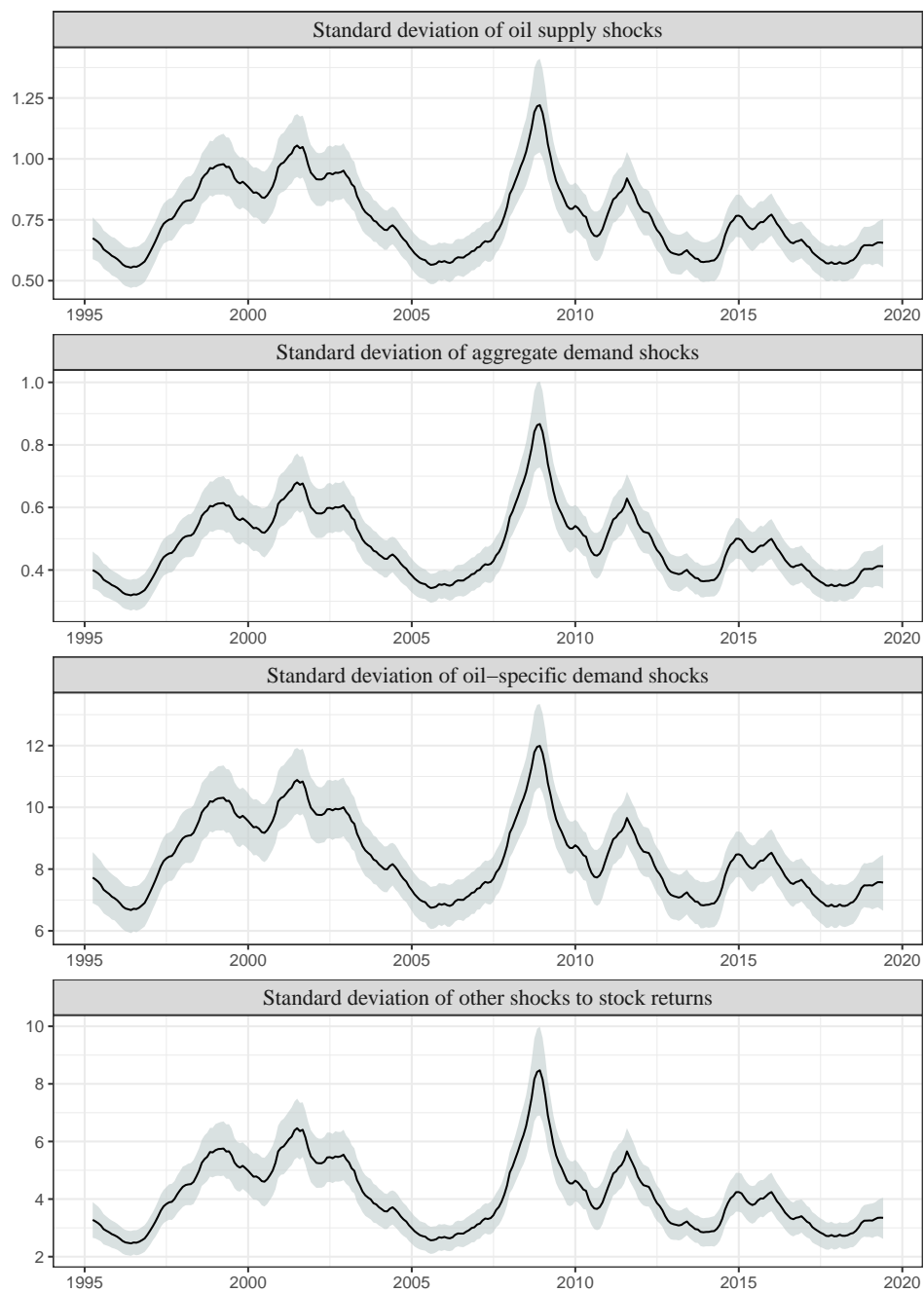
Case 7



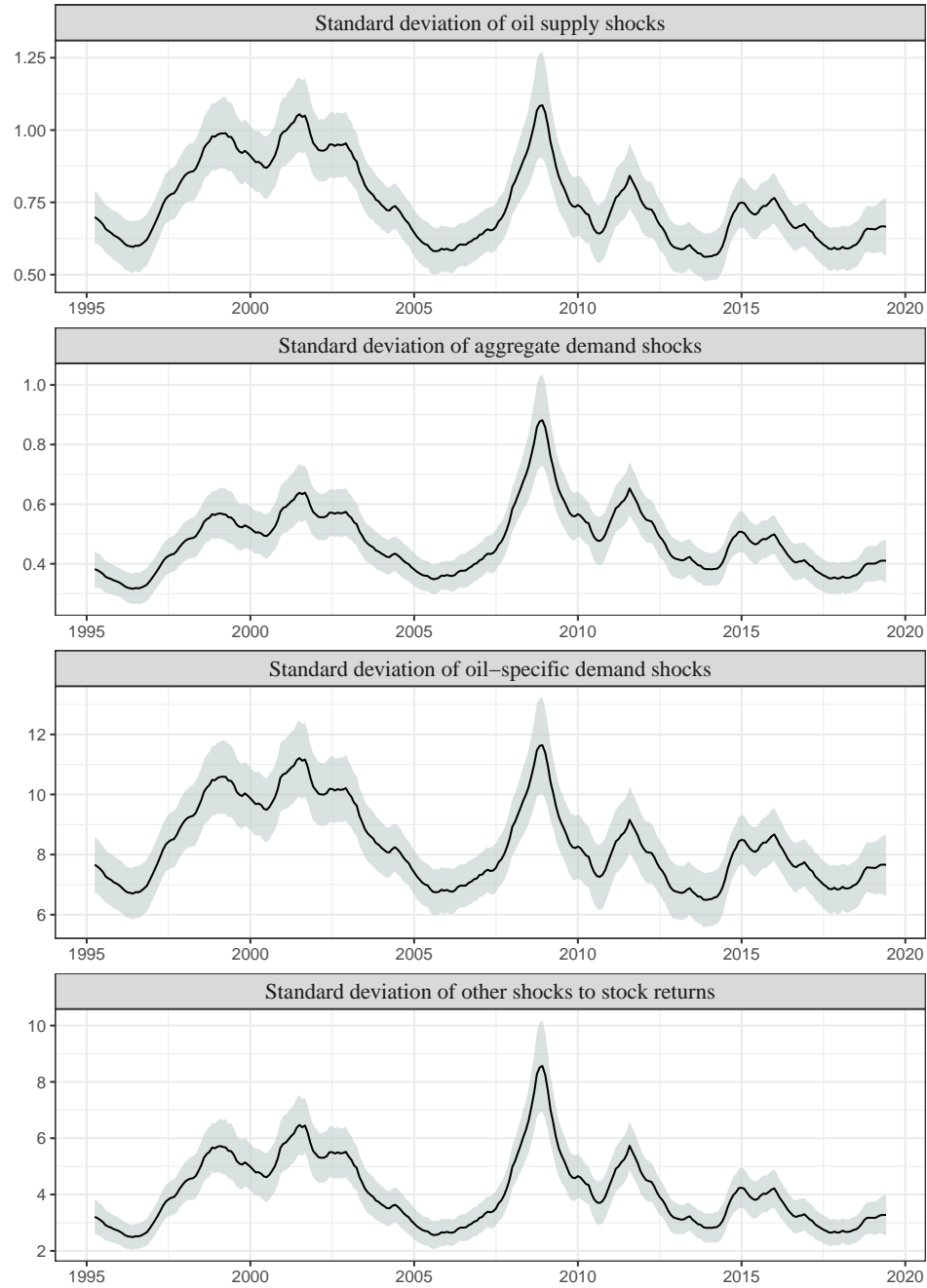
Case 8



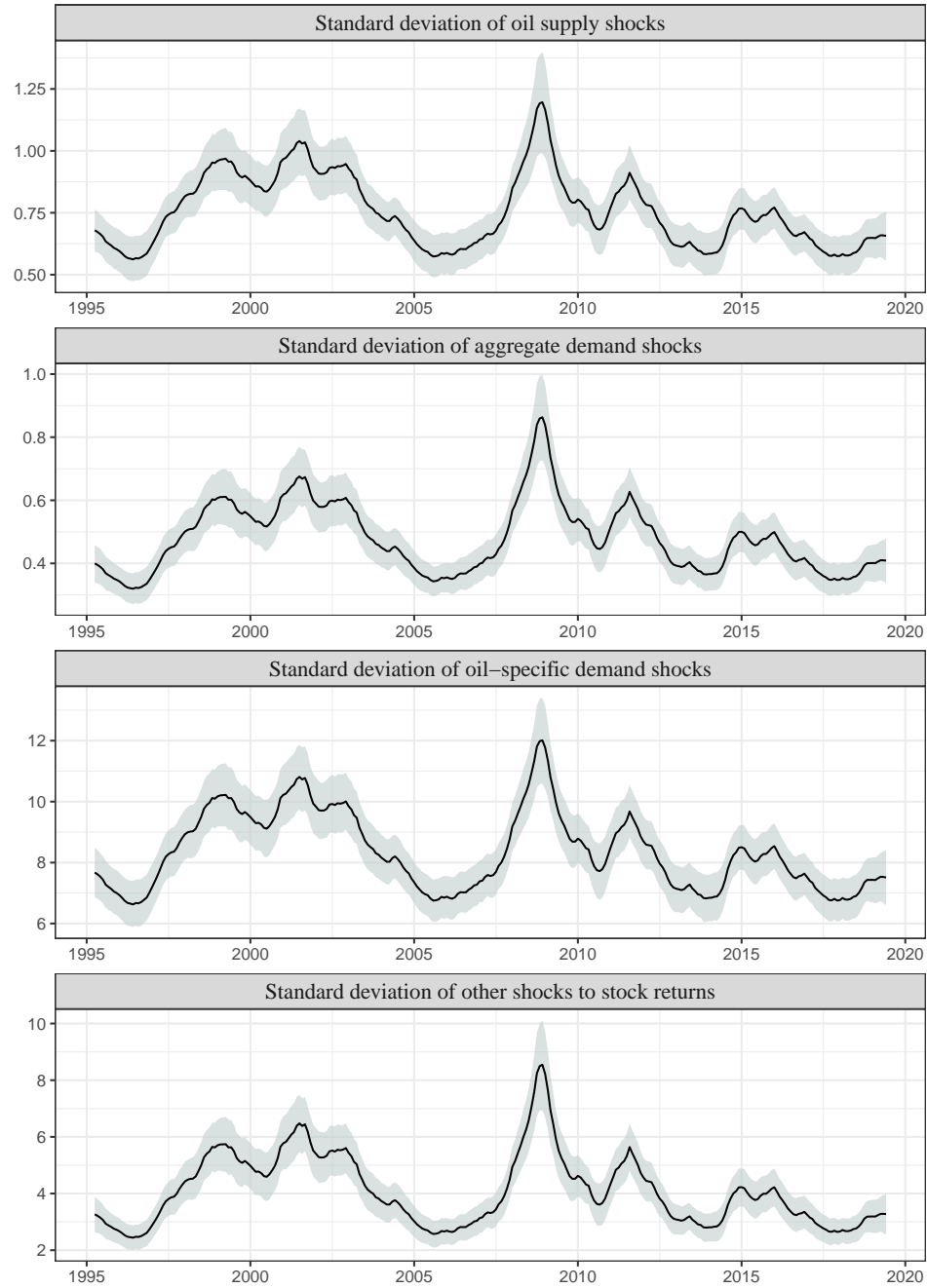
Case 9



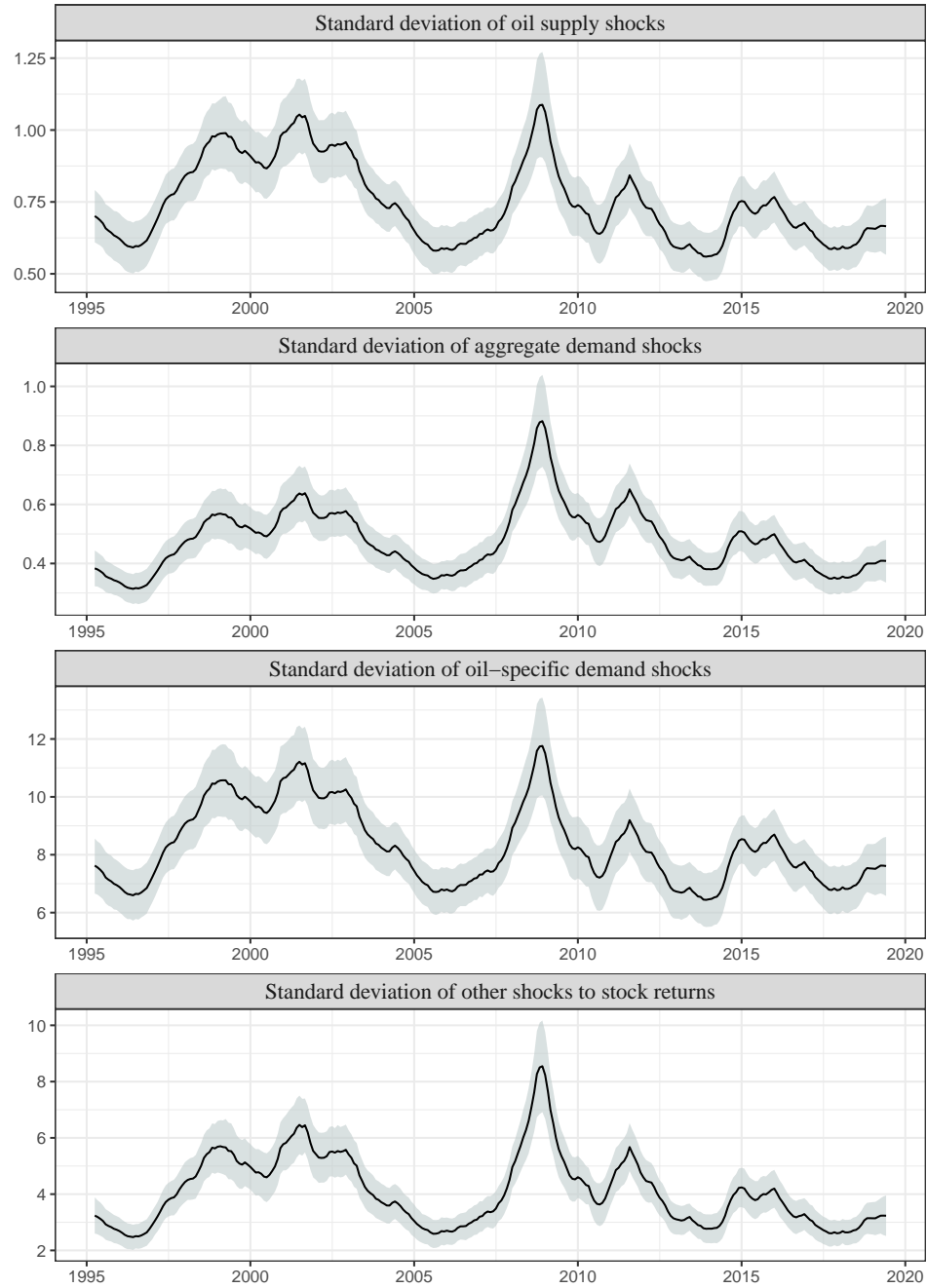
Case 10



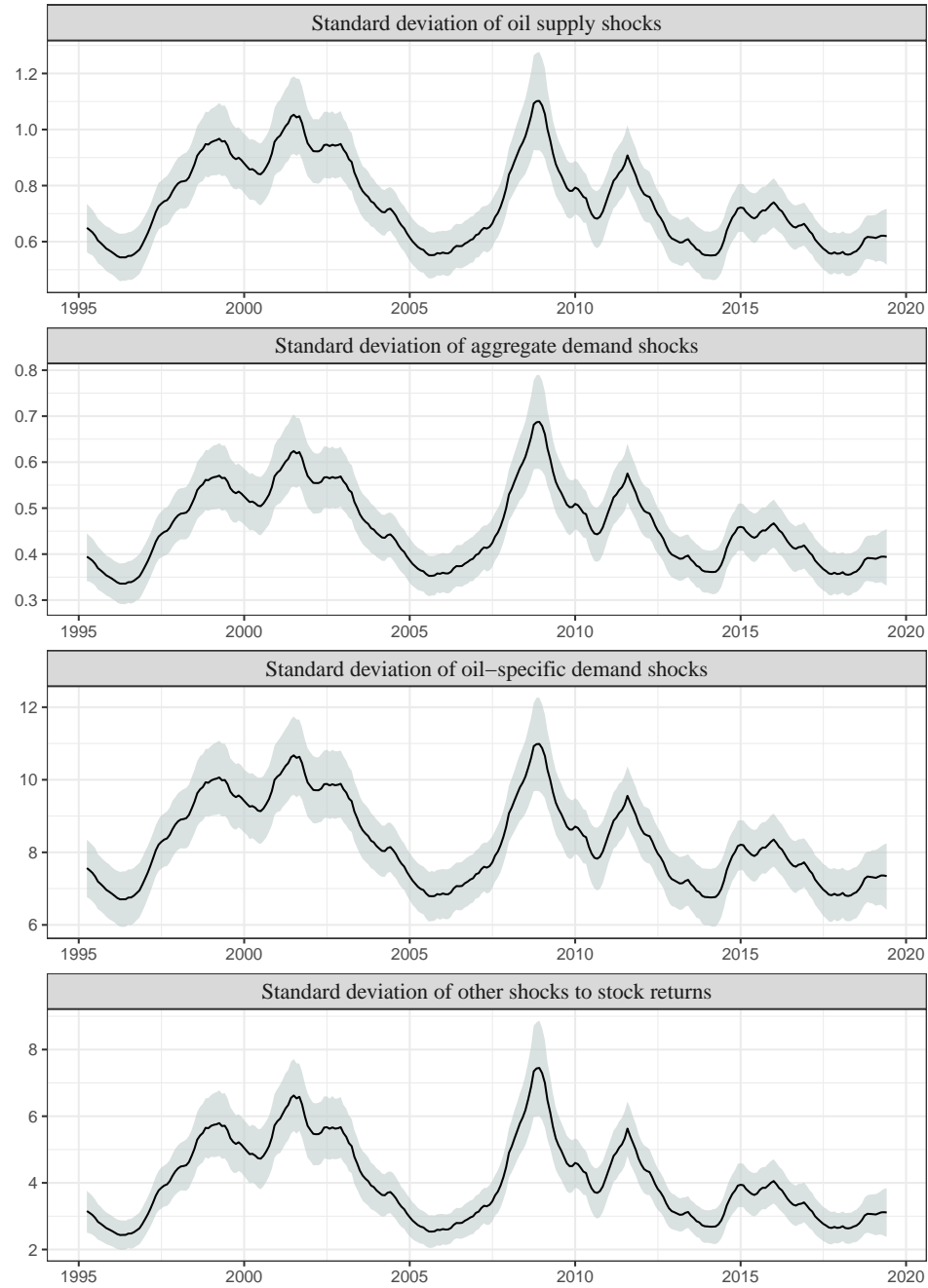
Case 11



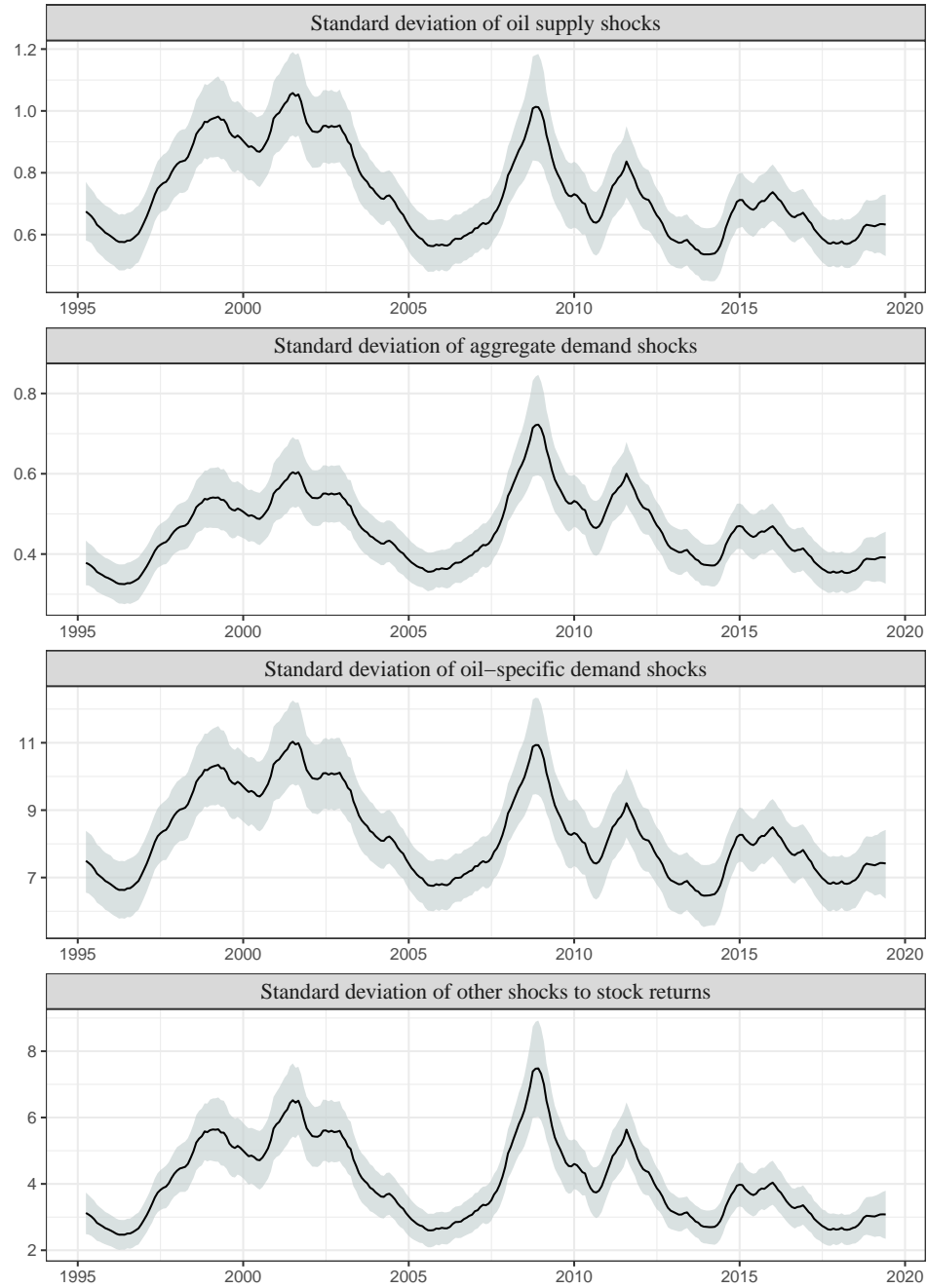
Case 12



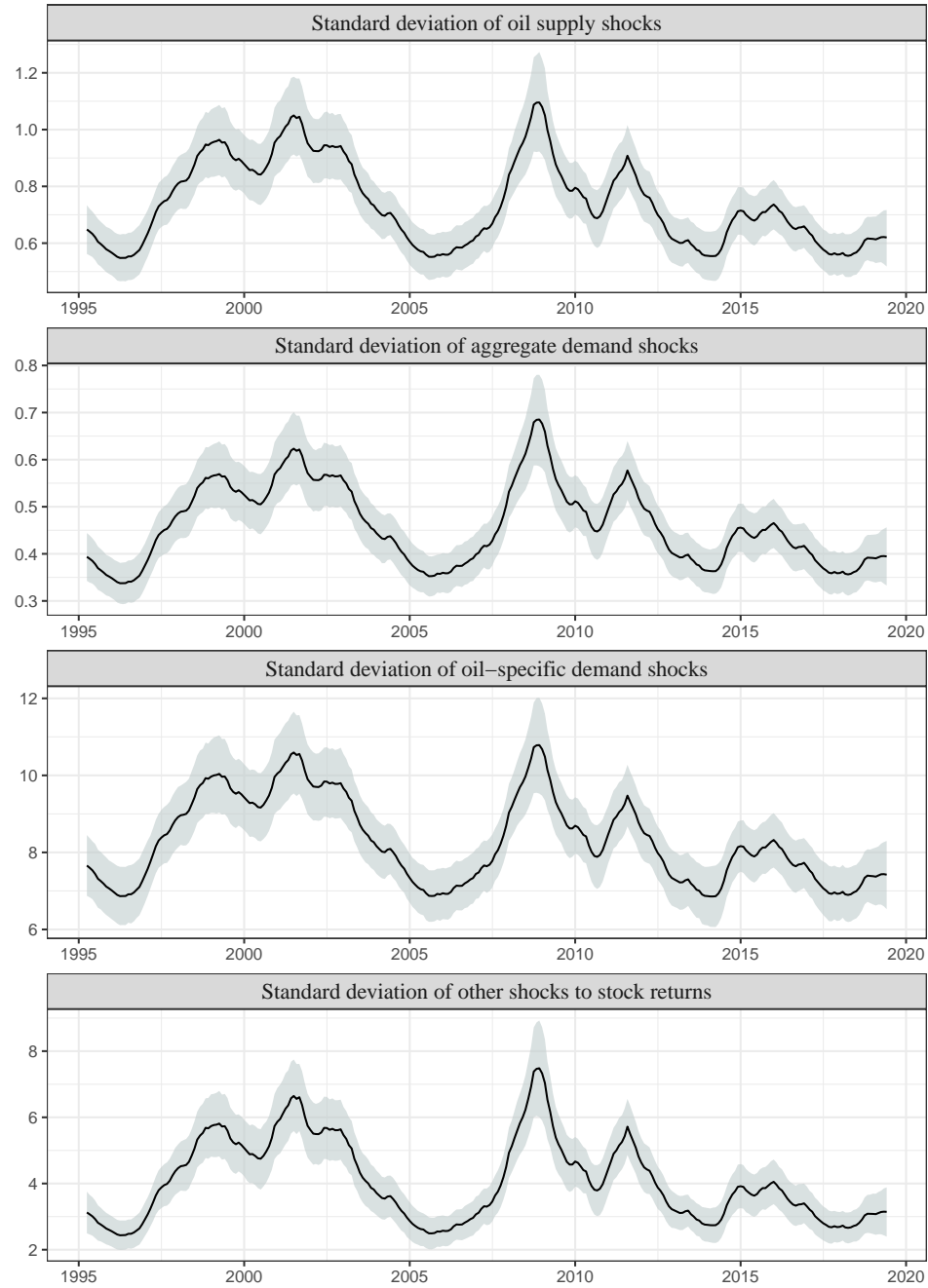
Case 13



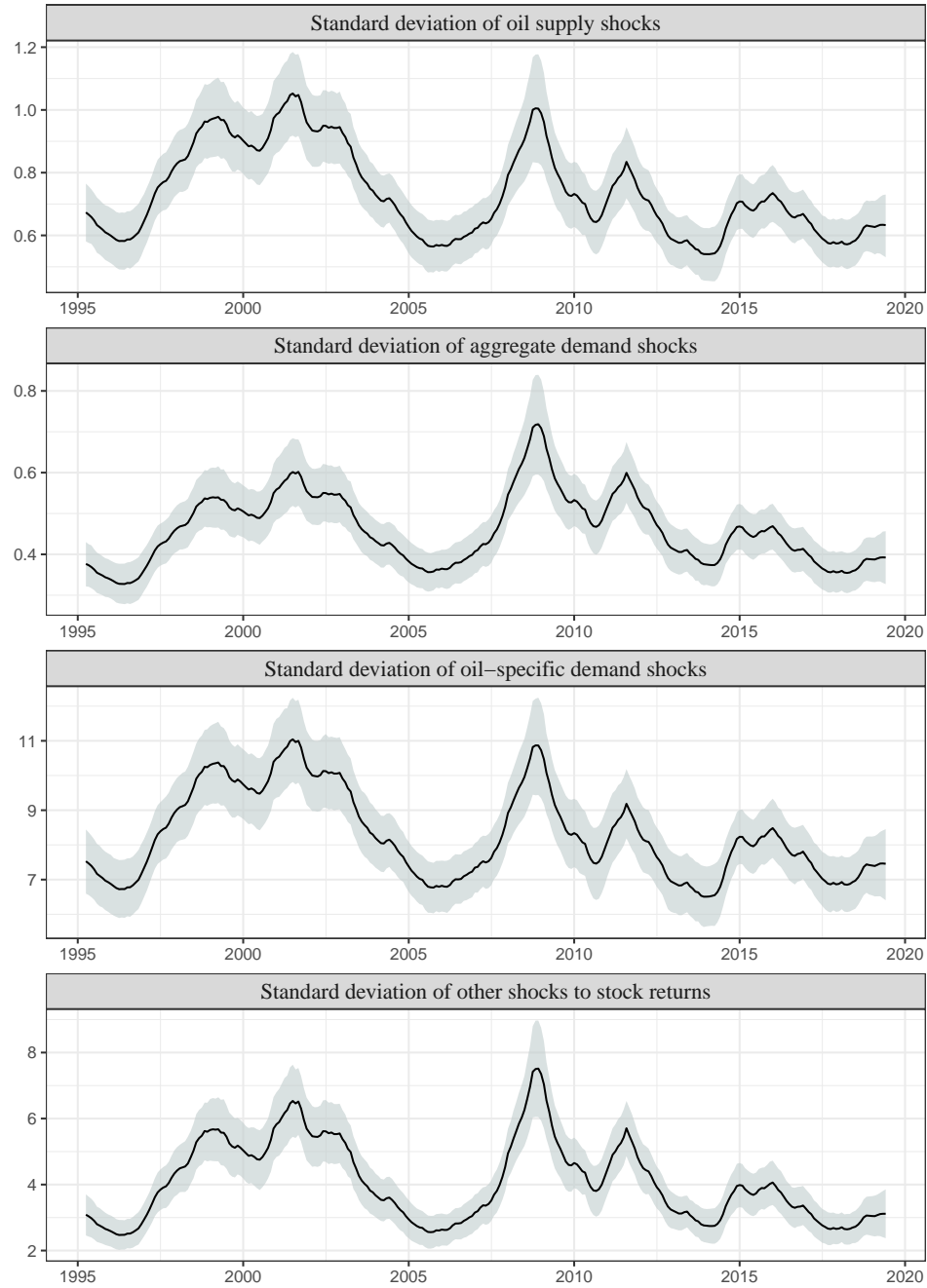
Case 14



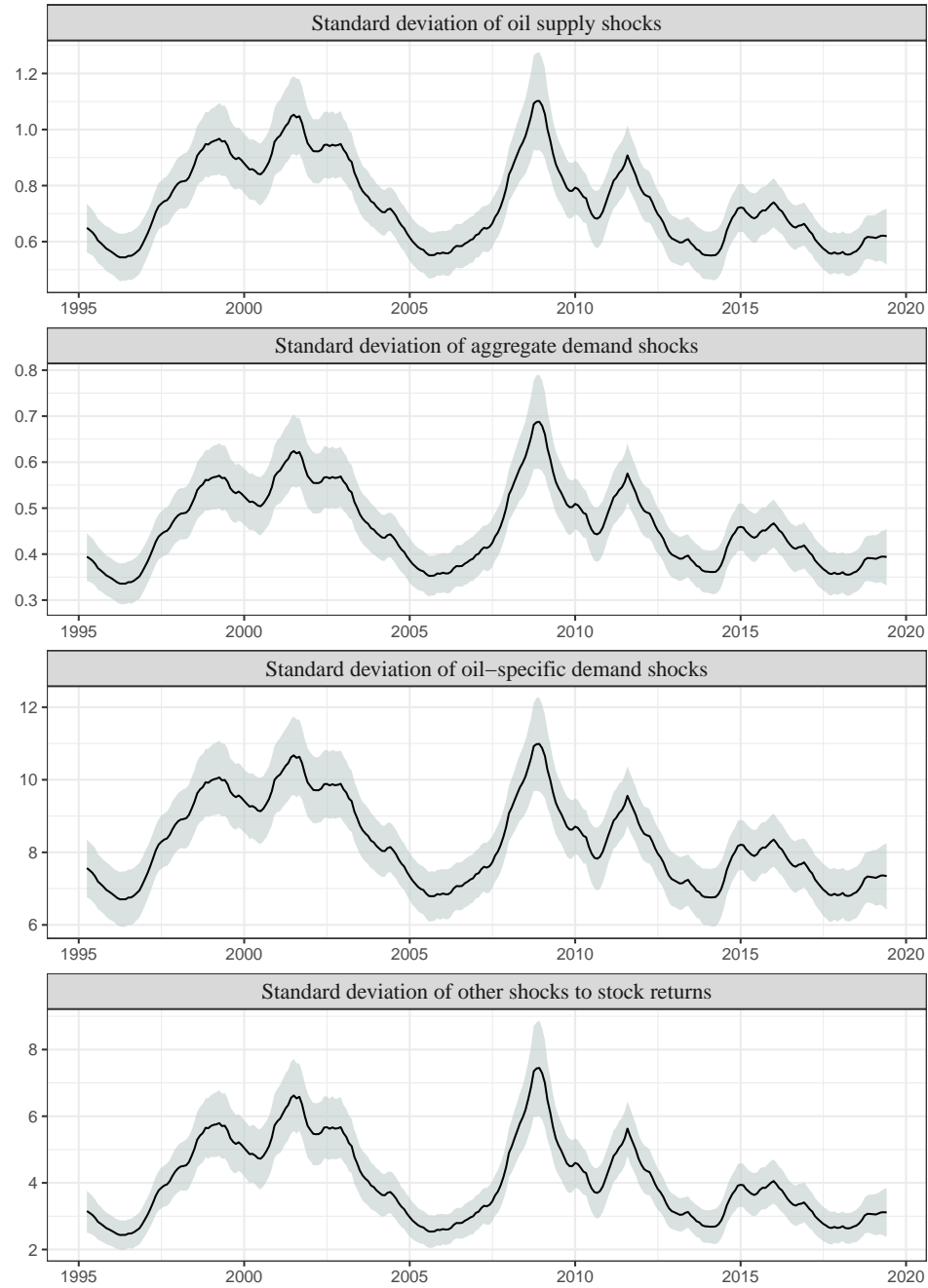
Case 15



Case 16



Case 17



Case 18

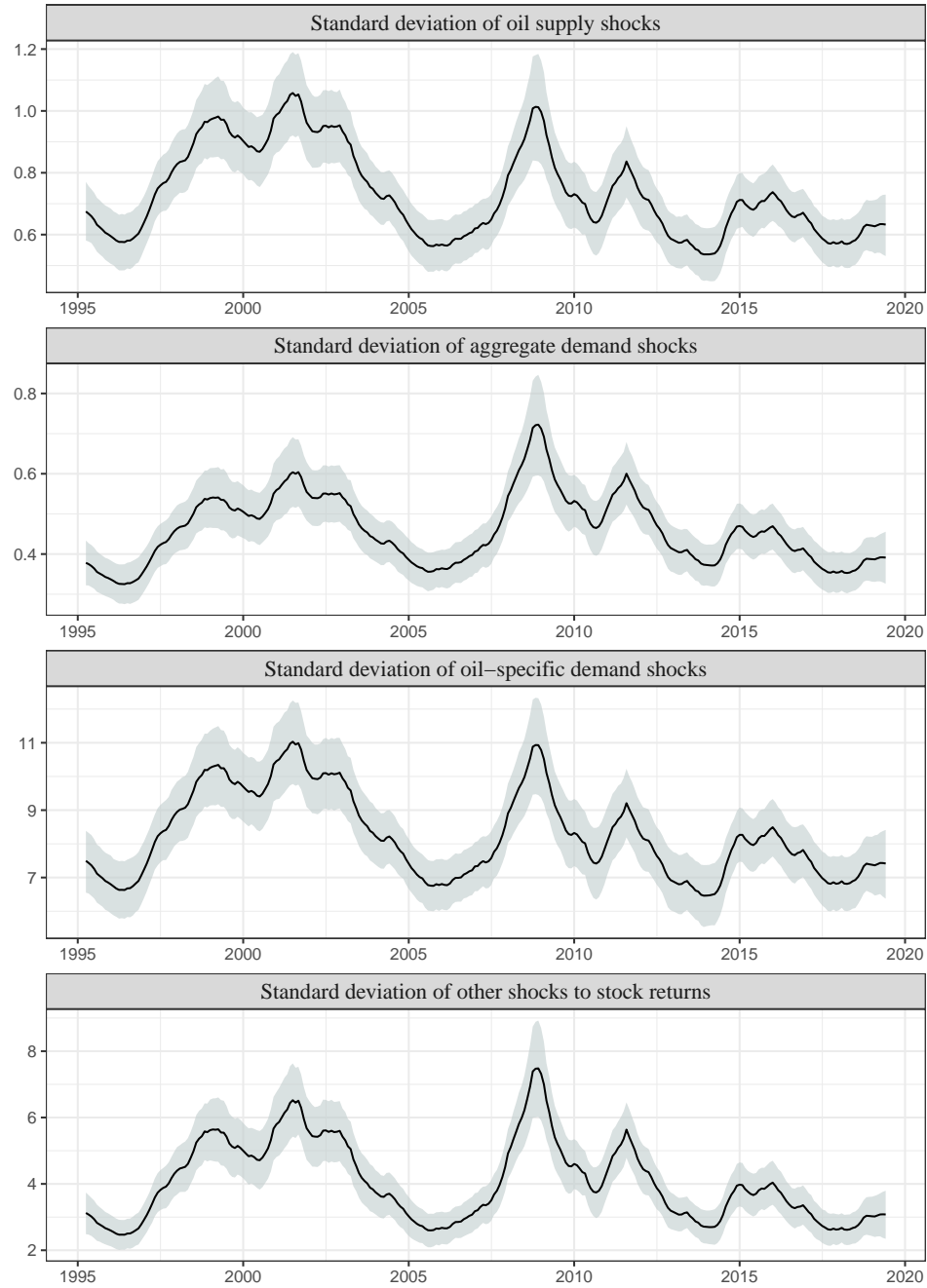
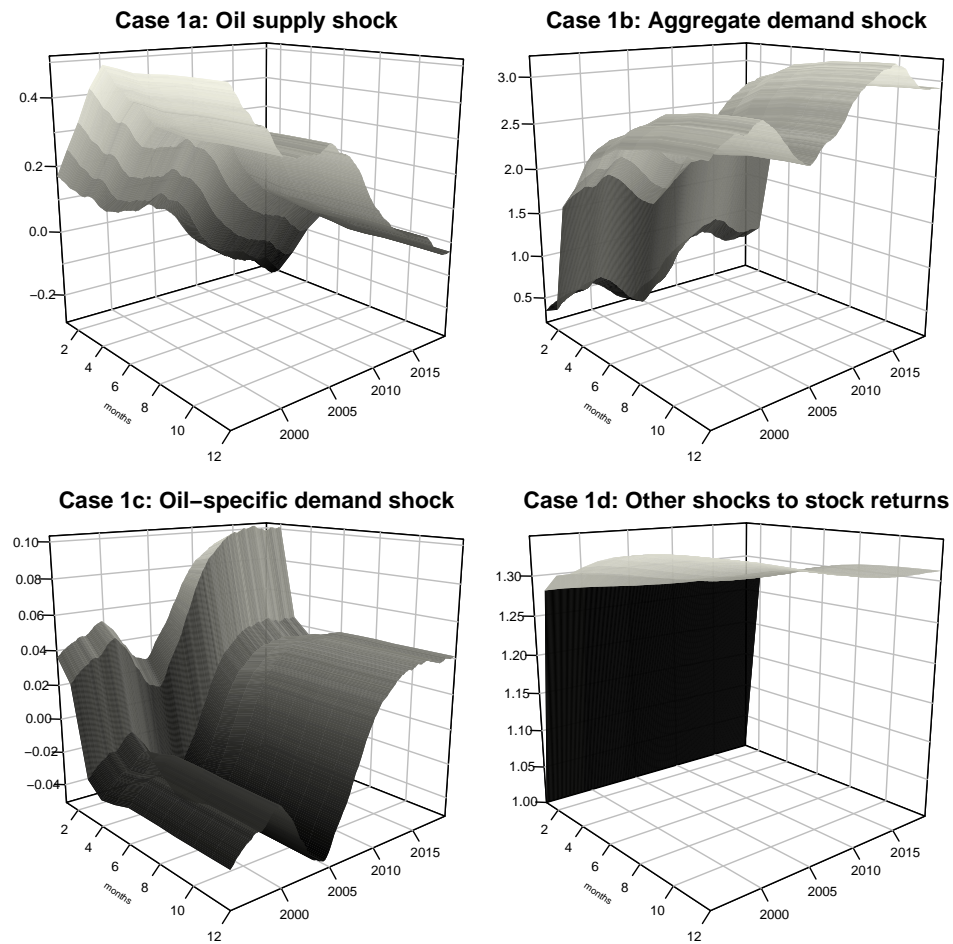
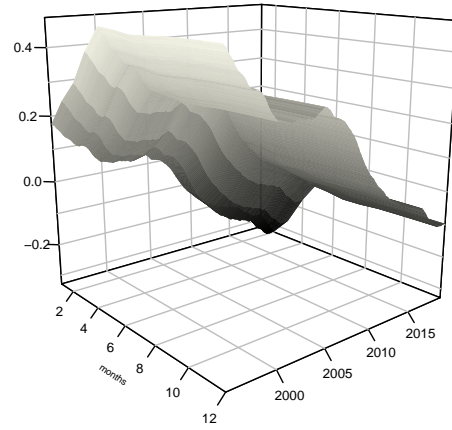


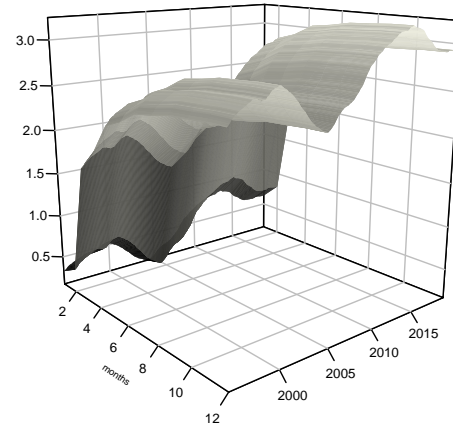
Figure S2: Three-dimensional responses of stock returns to structural shocks



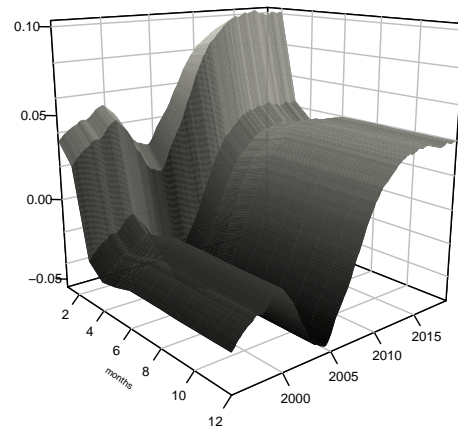
Case 2a: Oil supply shock



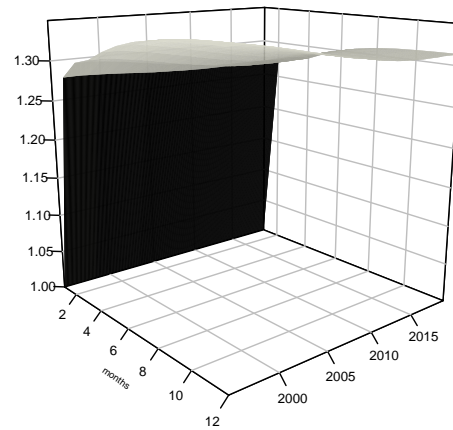
Case 2b: Aggregate demand shock



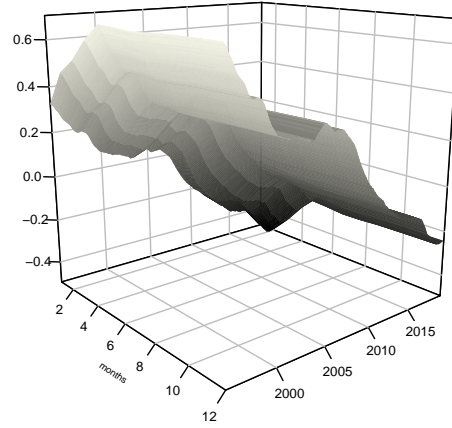
Case 2c: Oil-specific demand shock



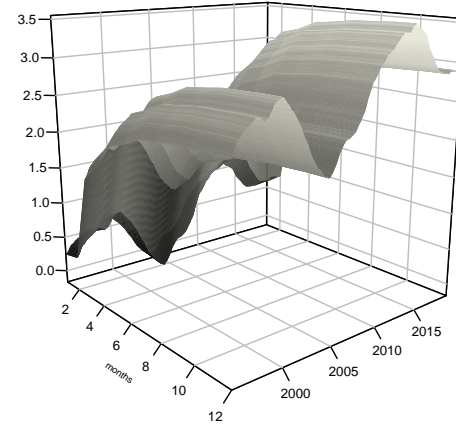
Case 2d: Other shocks to stock returns



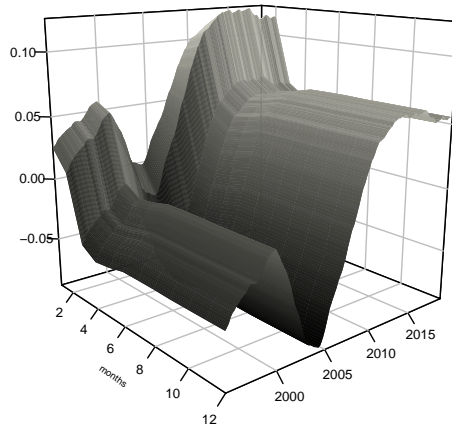
Case 3a: Oil supply shock



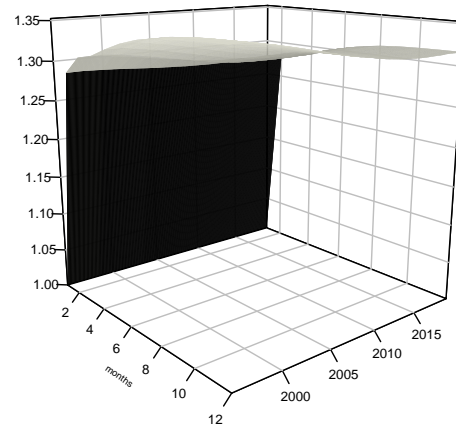
Case 3b: Aggregate demand shock



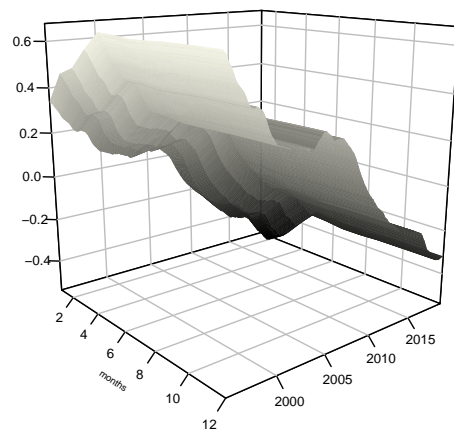
Case 3c: Oil-specific demand shock



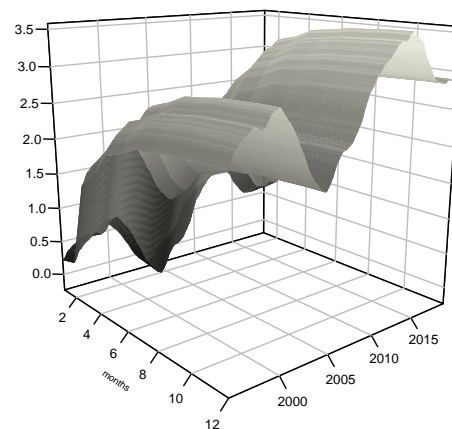
Case 3d: Other shocks to stock returns



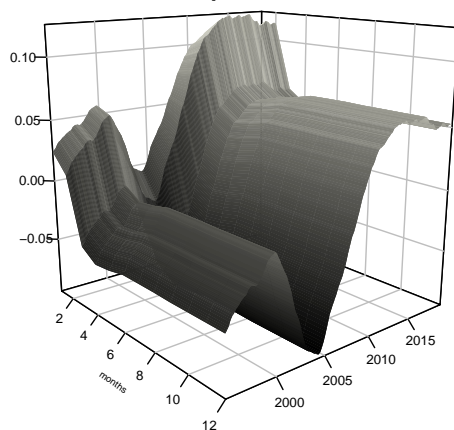
Case 4a: Oil supply shock



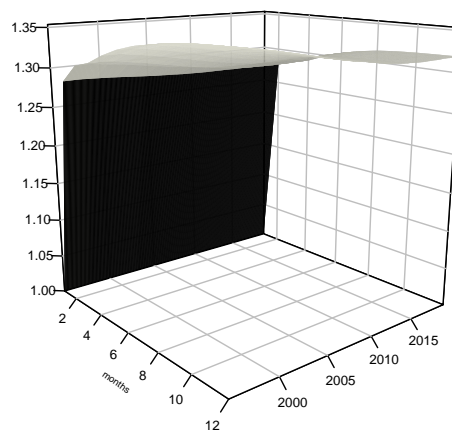
Case 4b: Aggregate demand shock



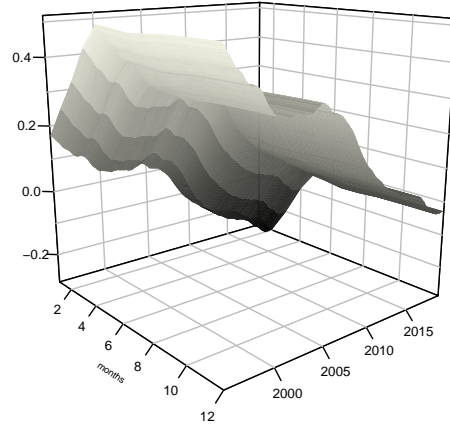
Case 4c: Oil-specific demand shock



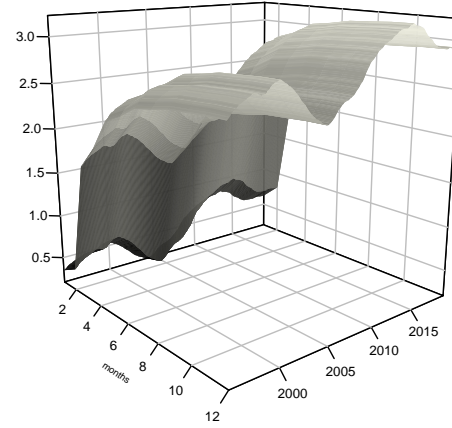
Case 4d: Other shocks to stock returns



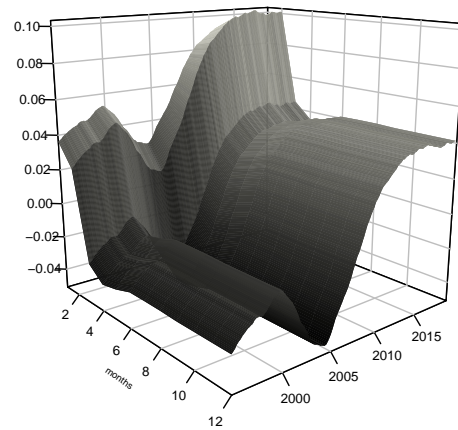
Case 5a: Oil supply shock



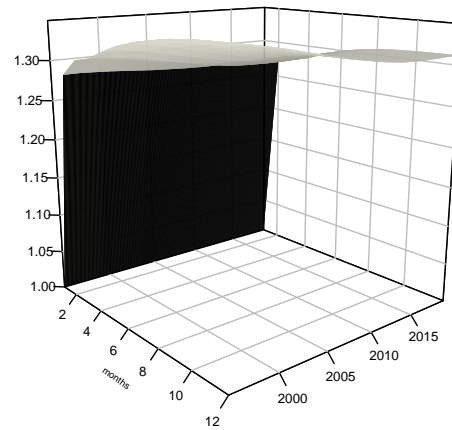
Case 5b: Aggregate demand shock



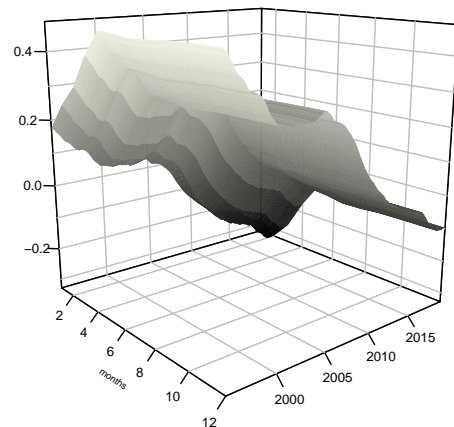
Case 5c: Oil-specific demand shock



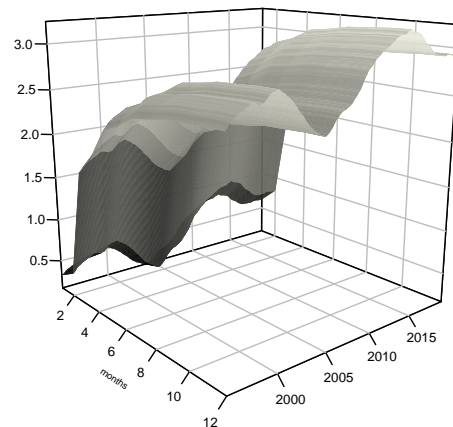
Case 5d: Other shocks to stock returns



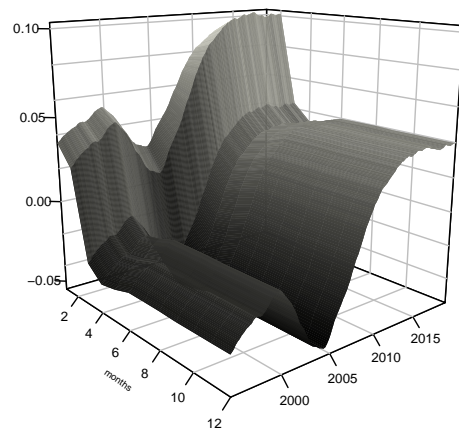
Case 6a: Oil supply shock



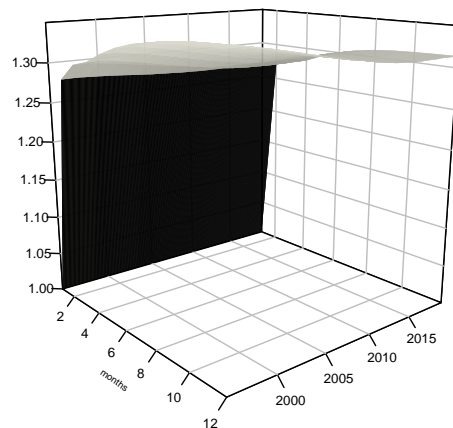
Case 6b: Aggregate demand shock



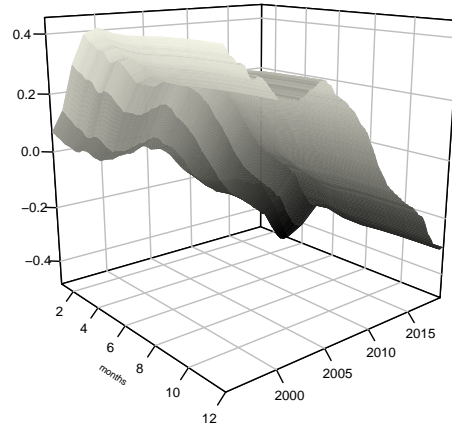
Case 6c: Oil-specific demand shock



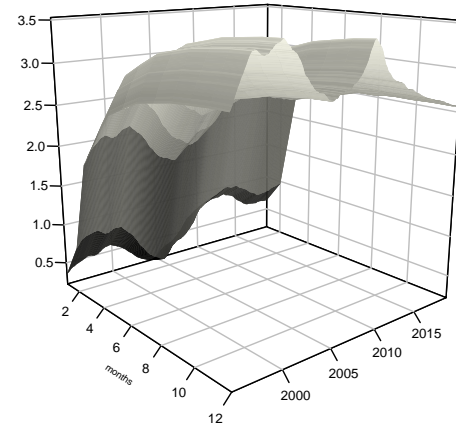
Case 6d: Other shocks to stock returns



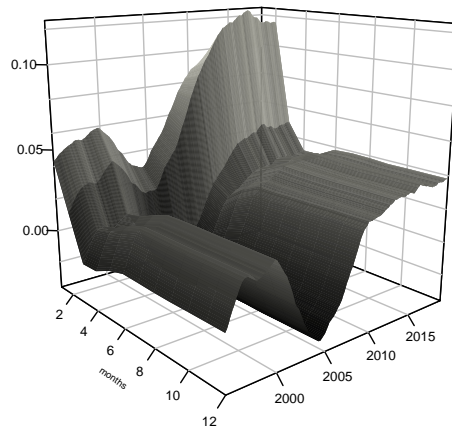
Case 7a: Oil supply shock



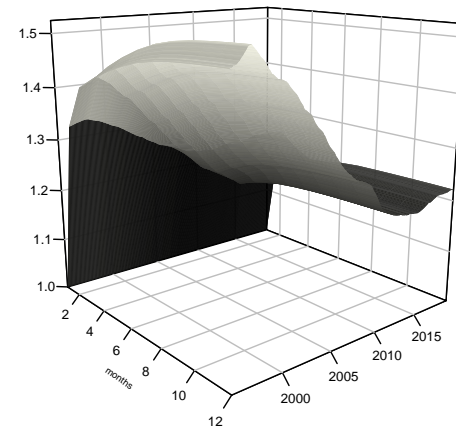
Case 7b: Aggregate demand shock



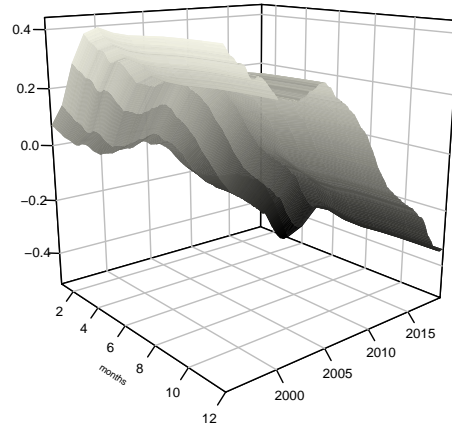
Case 7c: Oil-specific demand shock



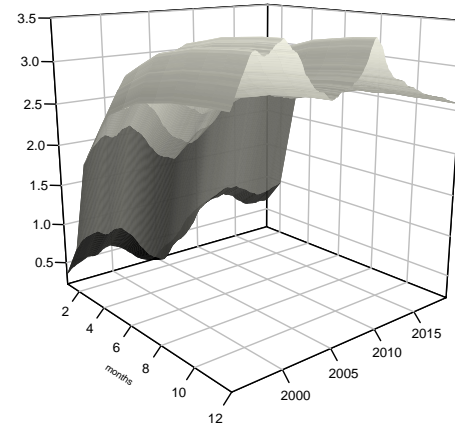
Case 7d: Other shocks to stock returns



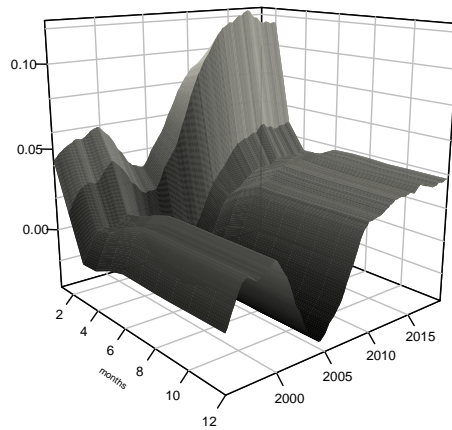
Case 8a: Oil supply shock



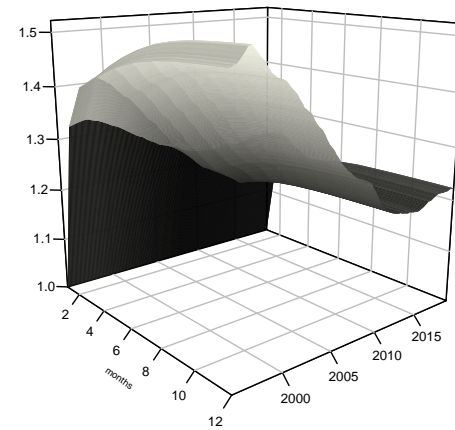
Case 8b: Aggregate demand shock



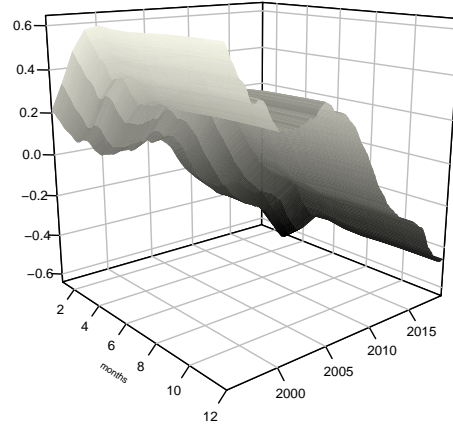
Case 8c: Oil-specific demand shock



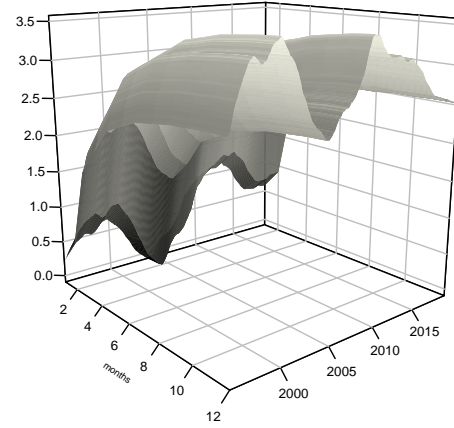
Case 8d: Other shocks to stock returns



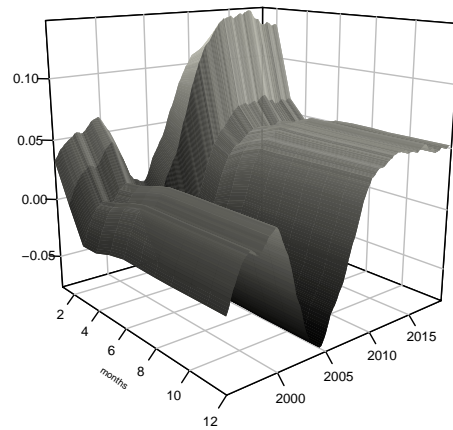
Case 9a: Oil supply shock



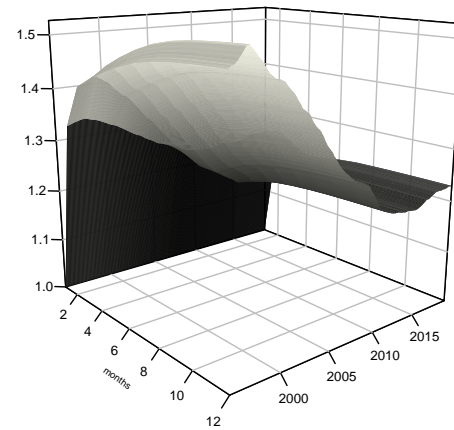
Case 9b: Aggregate demand shock



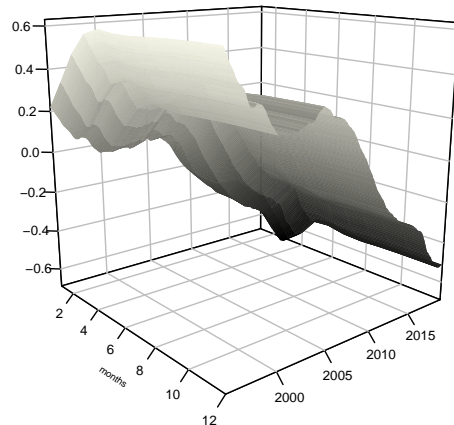
Case 9c: Oil-specific demand shock



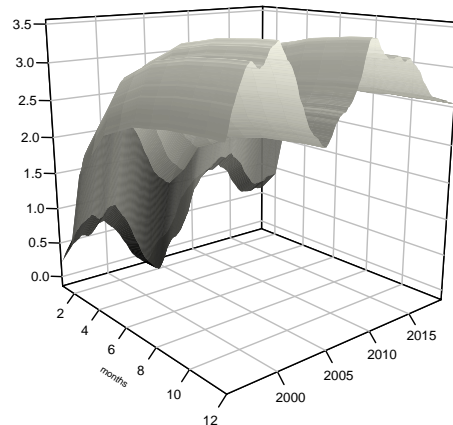
Case 9d: Other shocks to stock returns



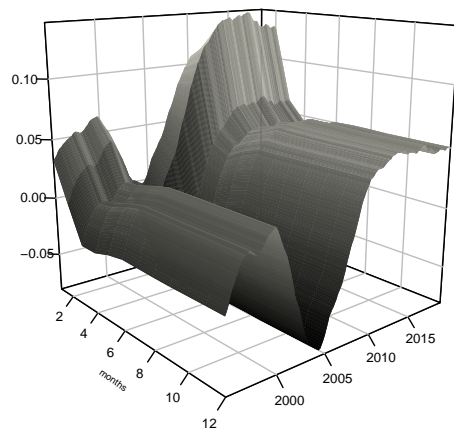
Case 10a: Oil supply shock



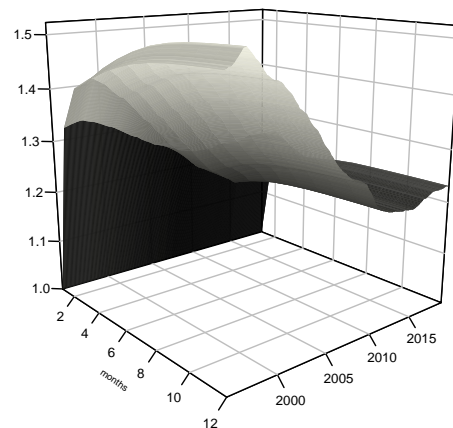
Case 10b: Aggregate demand shock



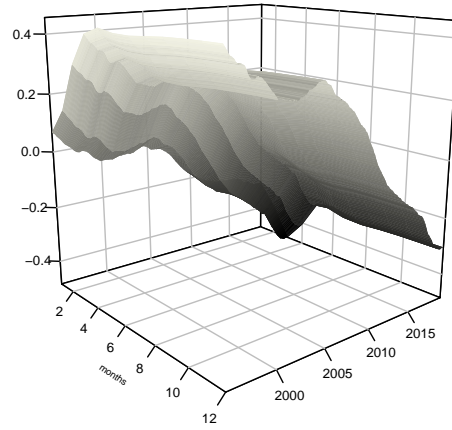
Case 10c: Oil-specific demand shock



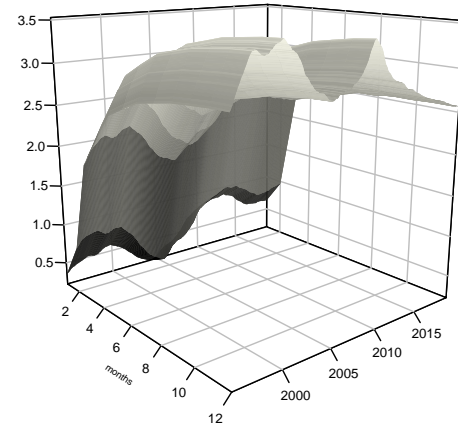
Case 10d: Other shocks to stock returns



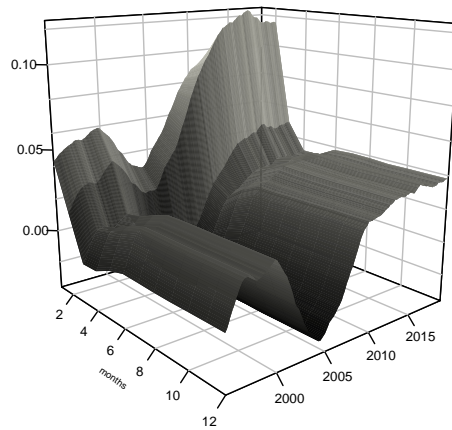
Case 11a: Oil supply shock



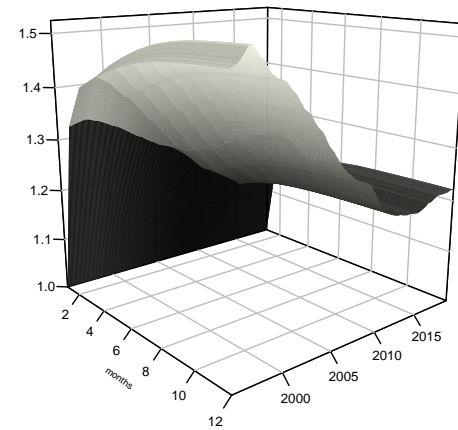
Case 11b: Aggregate demand shock



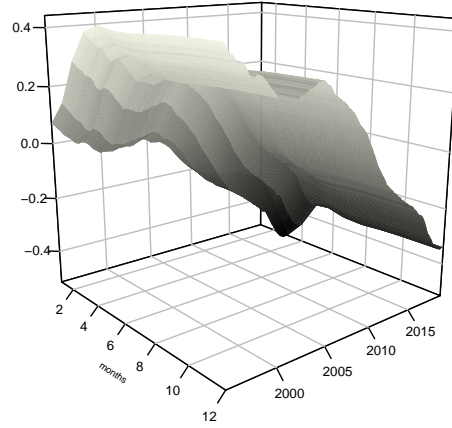
Case 11c: Oil-specific demand shock



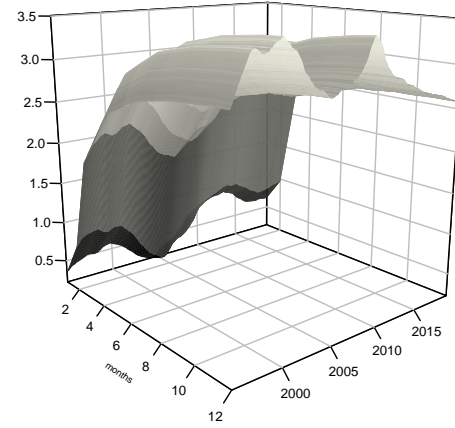
Case 11d: Other shocks to stock returns



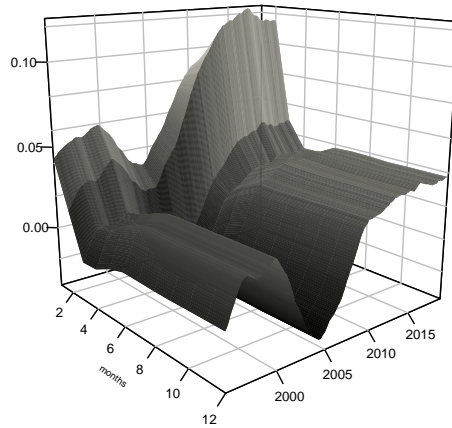
Case 12a: Oil supply shock



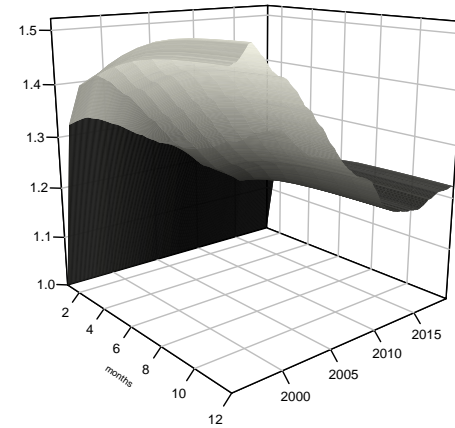
Case 12b: Aggregate demand shock



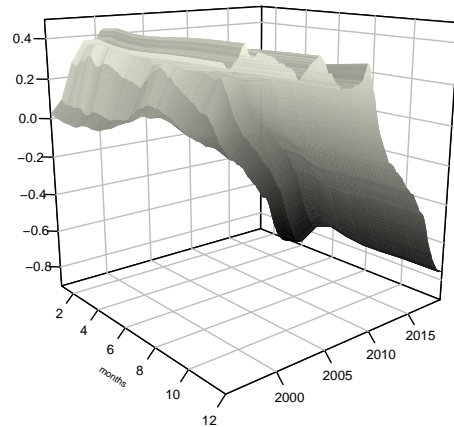
Case 12c: Oil-specific demand shock



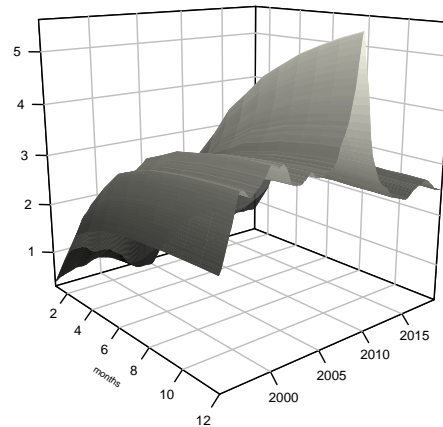
Case 12d: Other shocks to stock returns



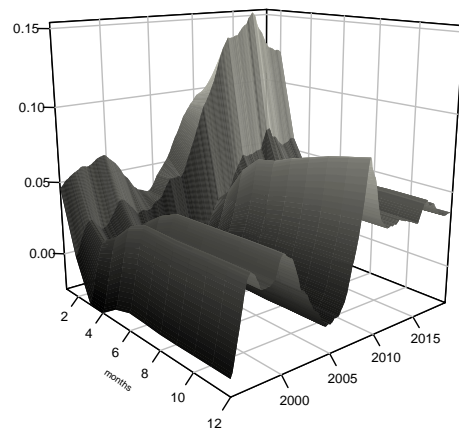
Case 13a: Oil supply shock



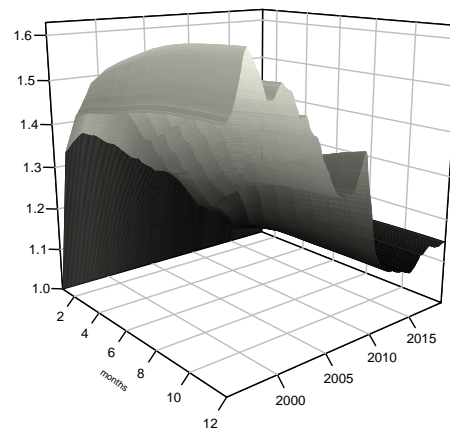
Case 13b: Aggregate demand shock



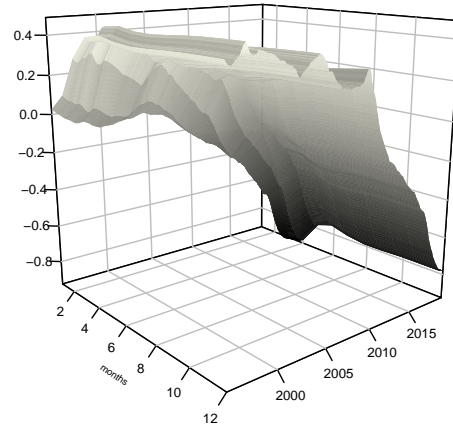
Case 13c: Oil-specific demand shock



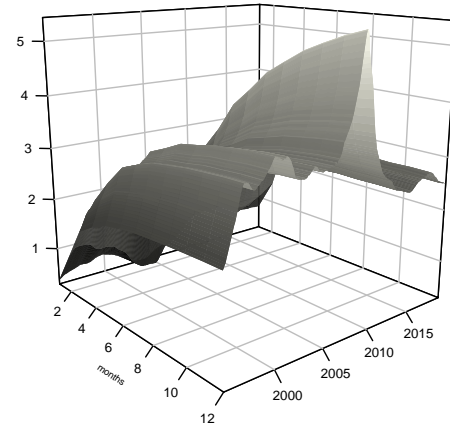
Case 13d: Other shocks to stock returns



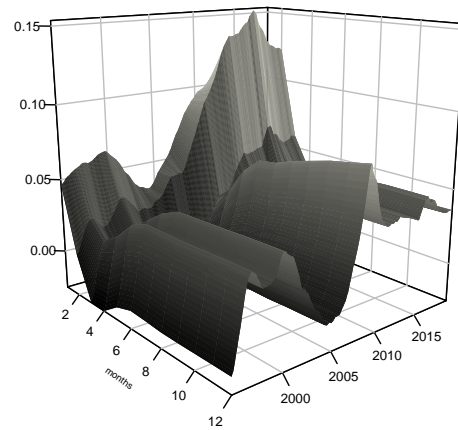
Case 14a: Oil supply shock



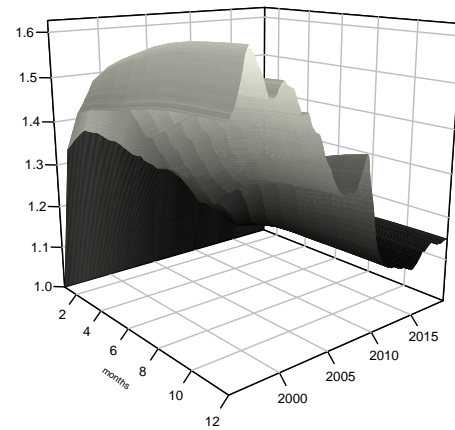
Case 14b: Aggregate demand shock



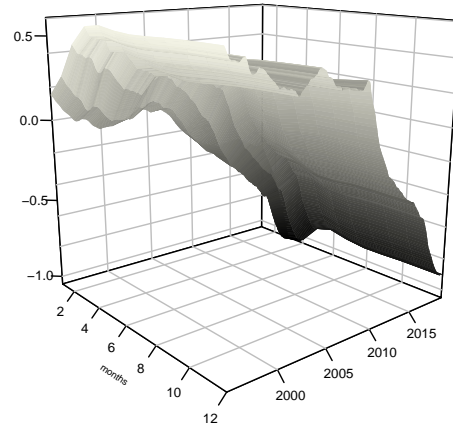
Case 14c: Oil-specific demand shock



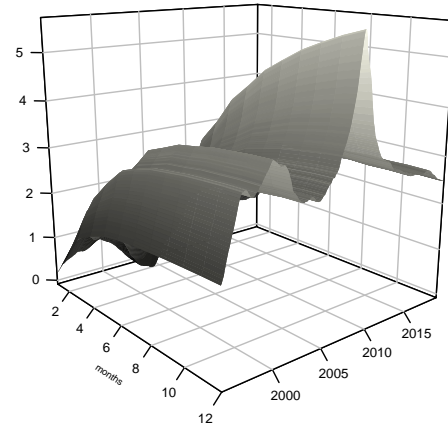
Case 14d: Other shocks to stock returns



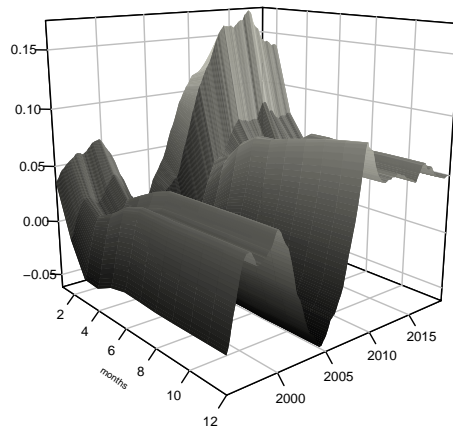
Case 15a: Oil supply shock



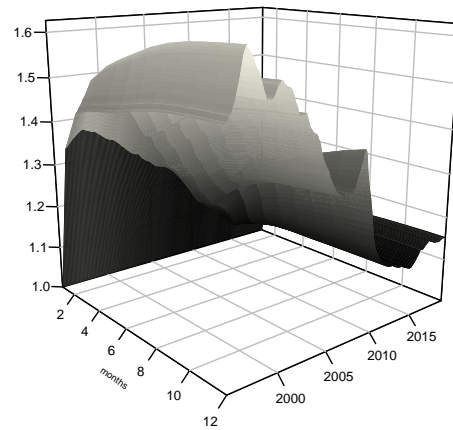
Case 15b: Aggregate demand shock



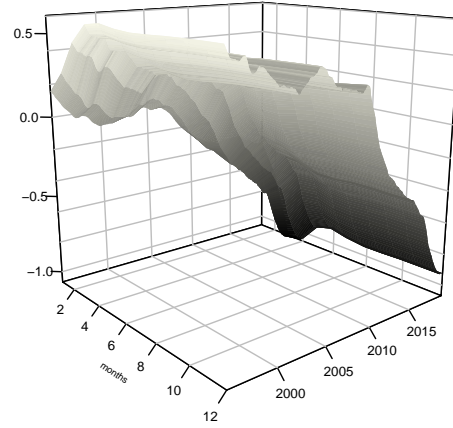
Case 15c: Oil-specific demand shock



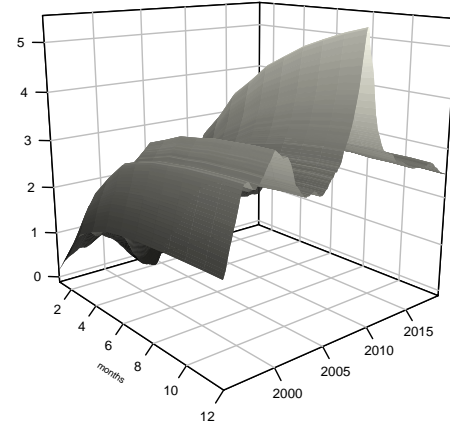
Case 15d: Other shocks to stock returns



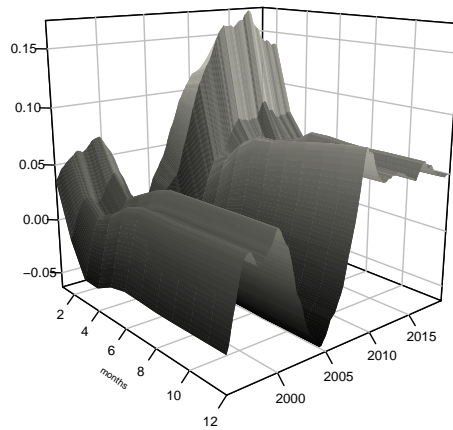
Case 16a: Oil supply shock



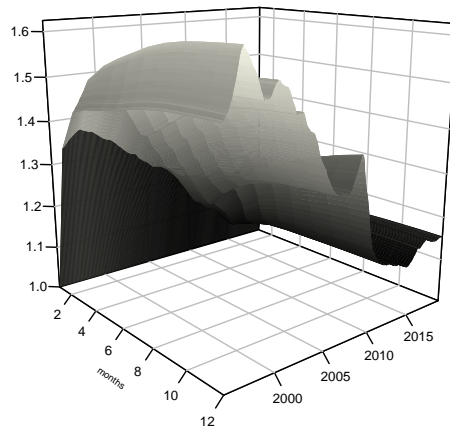
Case 16b: Aggregate demand shock



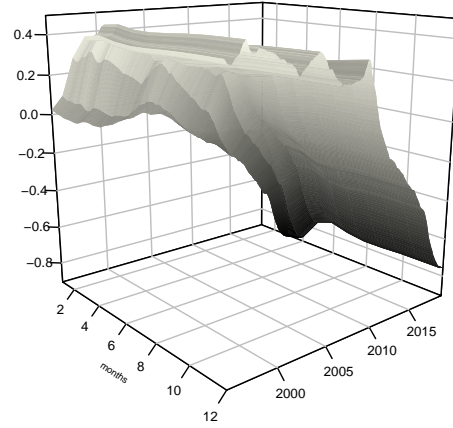
Case 16c: Oil-specific demand shock



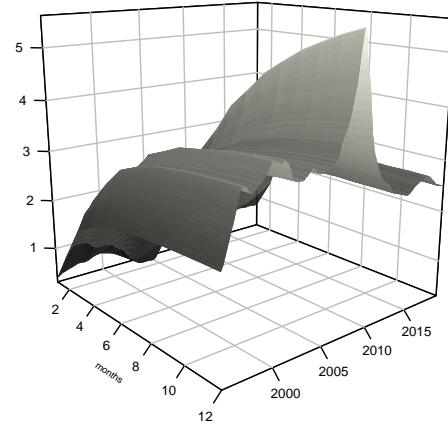
Case 16d: Other shocks to stock returns



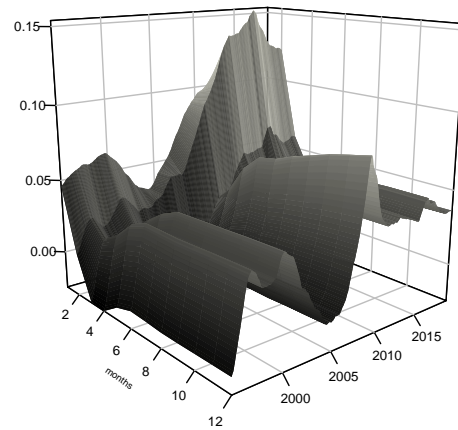
Case 17a: Oil supply shock



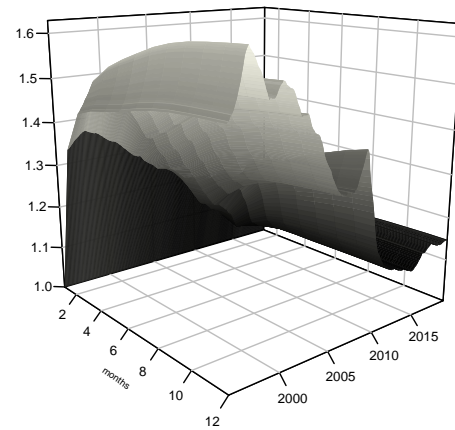
Case 17b: Aggregate demand shock



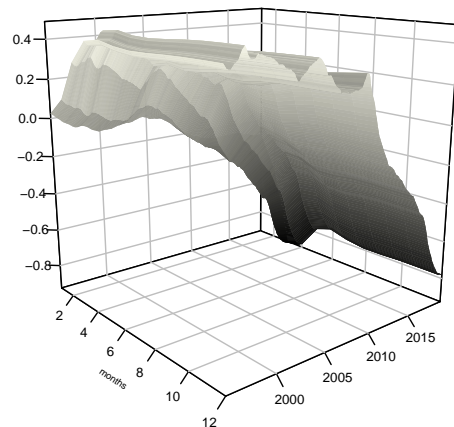
Case 17c: Oil-specific demand shock



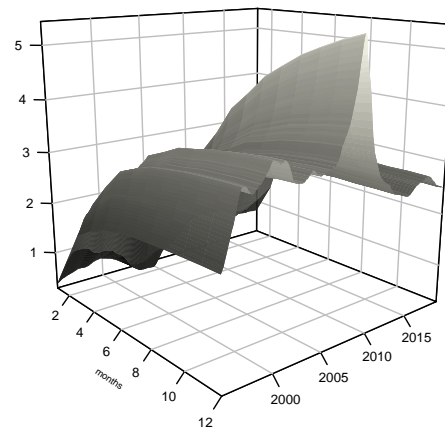
Case 17d: Other shocks to stock returns



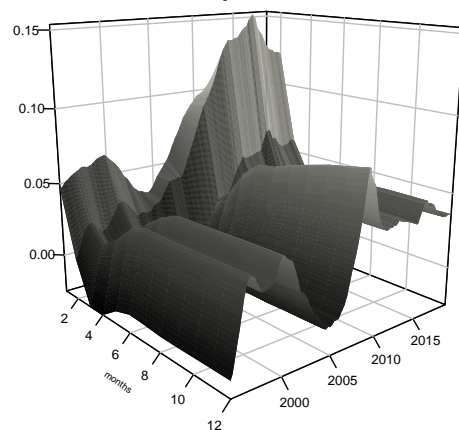
Case 18a: Oil supply shock



Case 18b: Aggregate demand shock



Case 18c: Oil-specific demand shock



Case 18d: Other shocks to stock returns

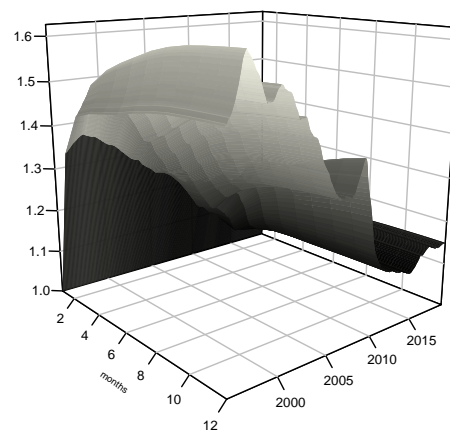
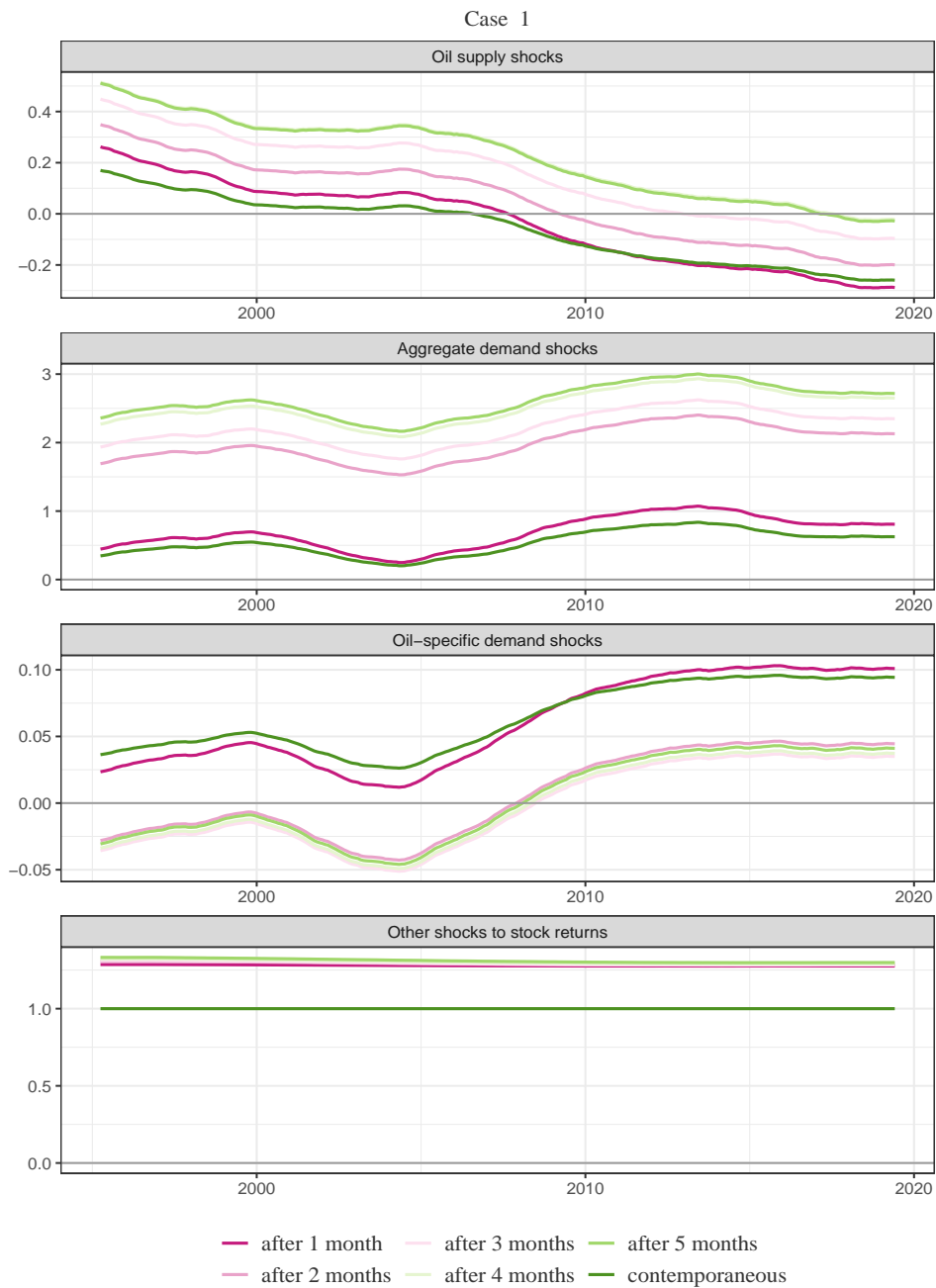
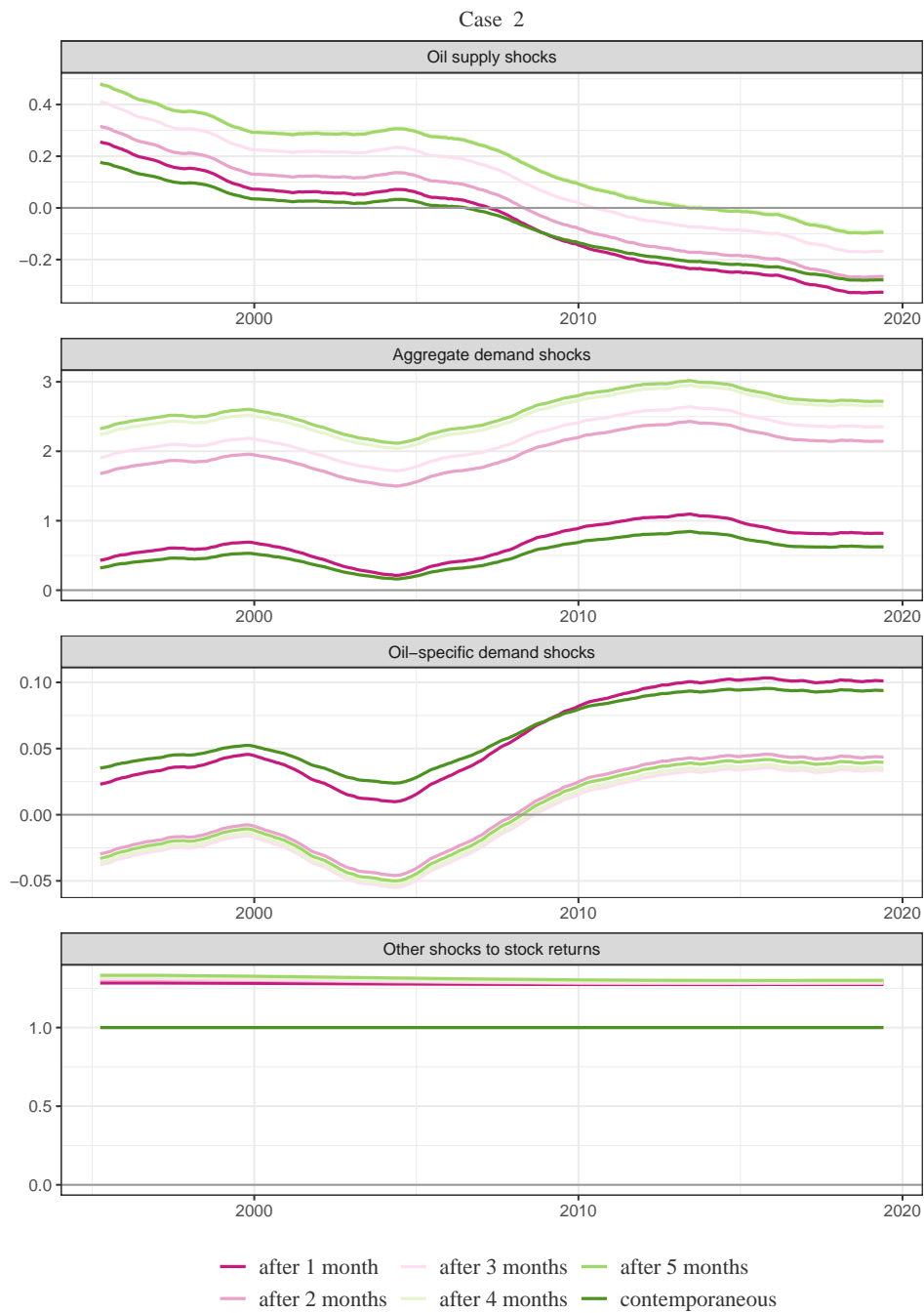
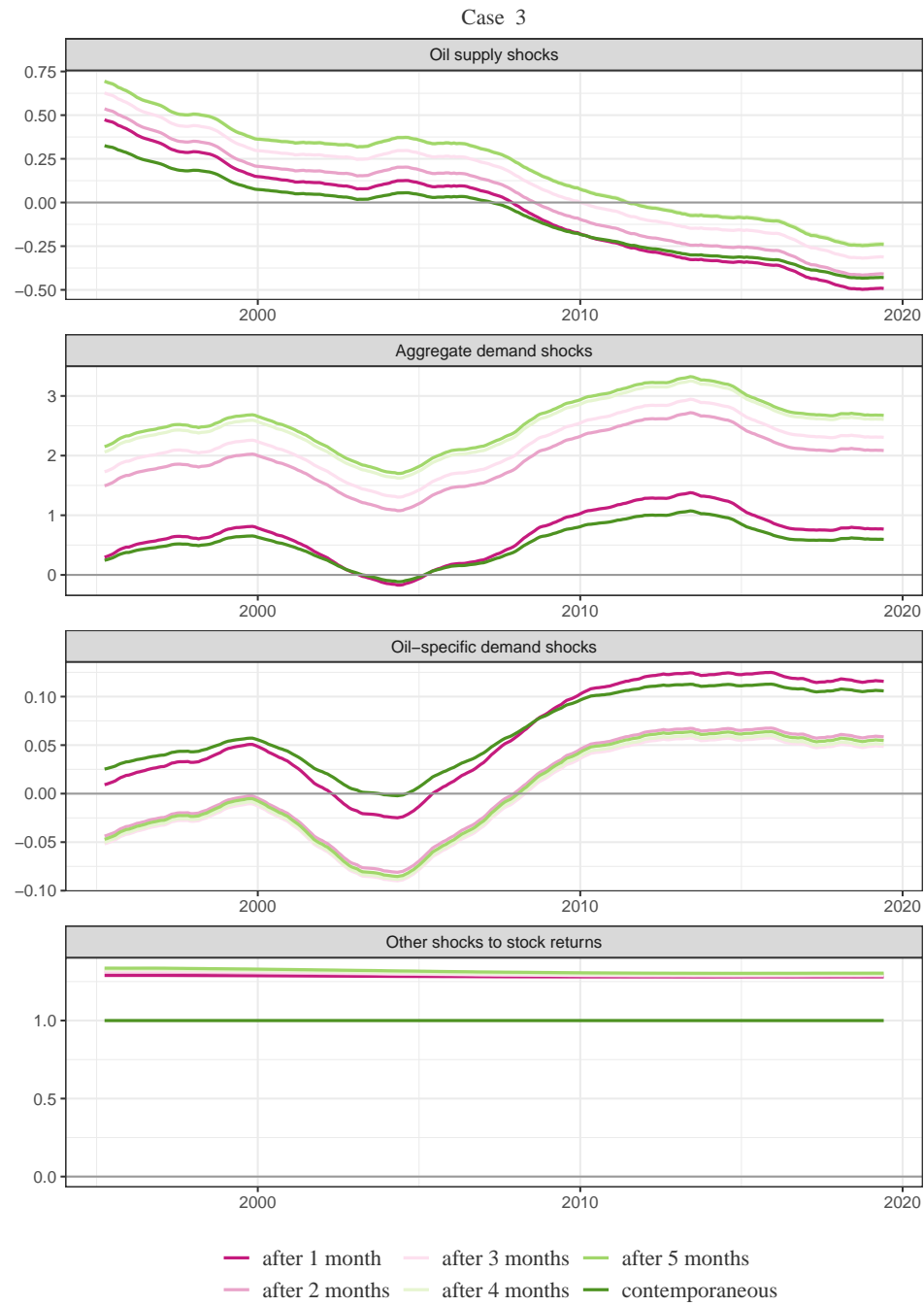
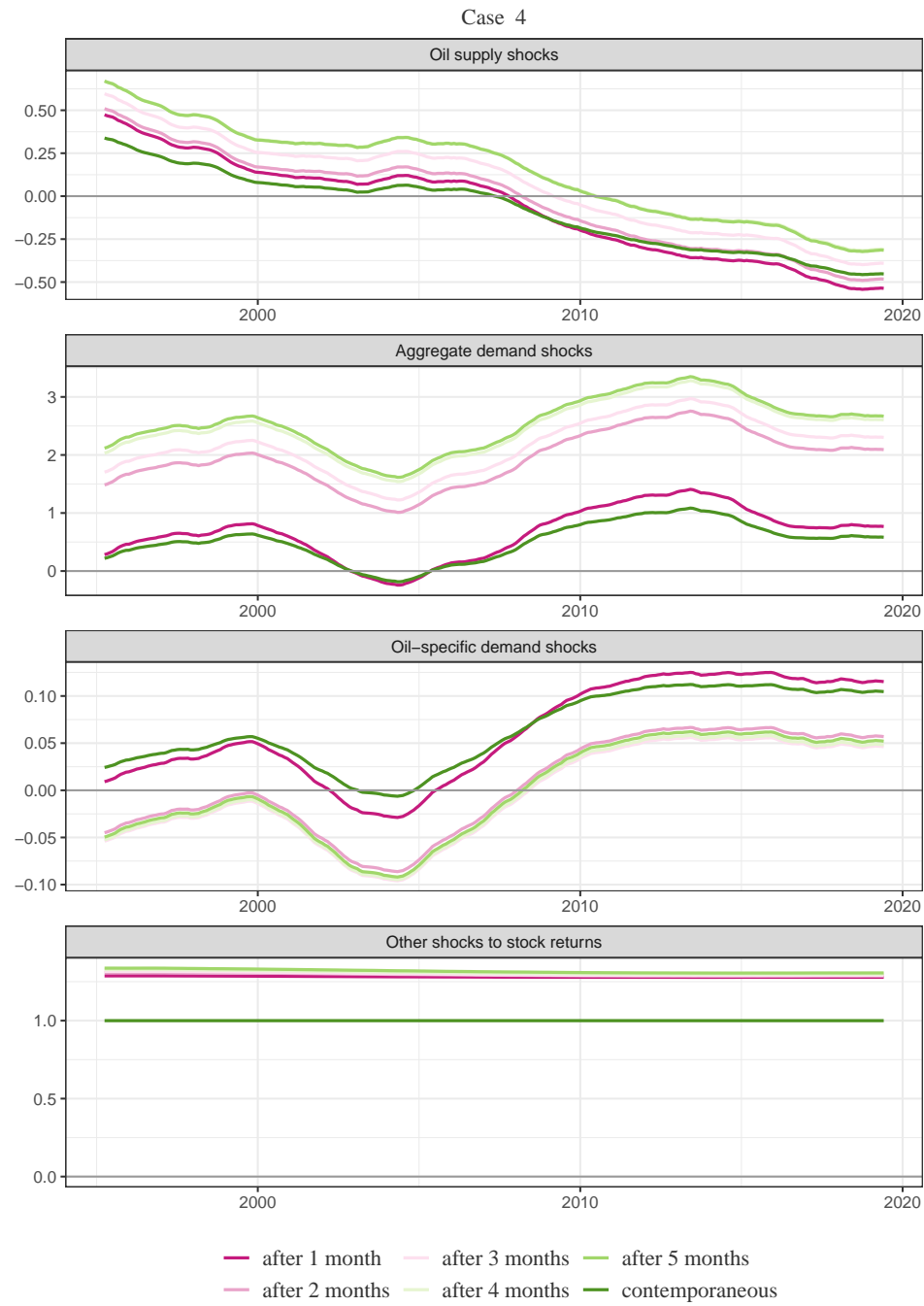


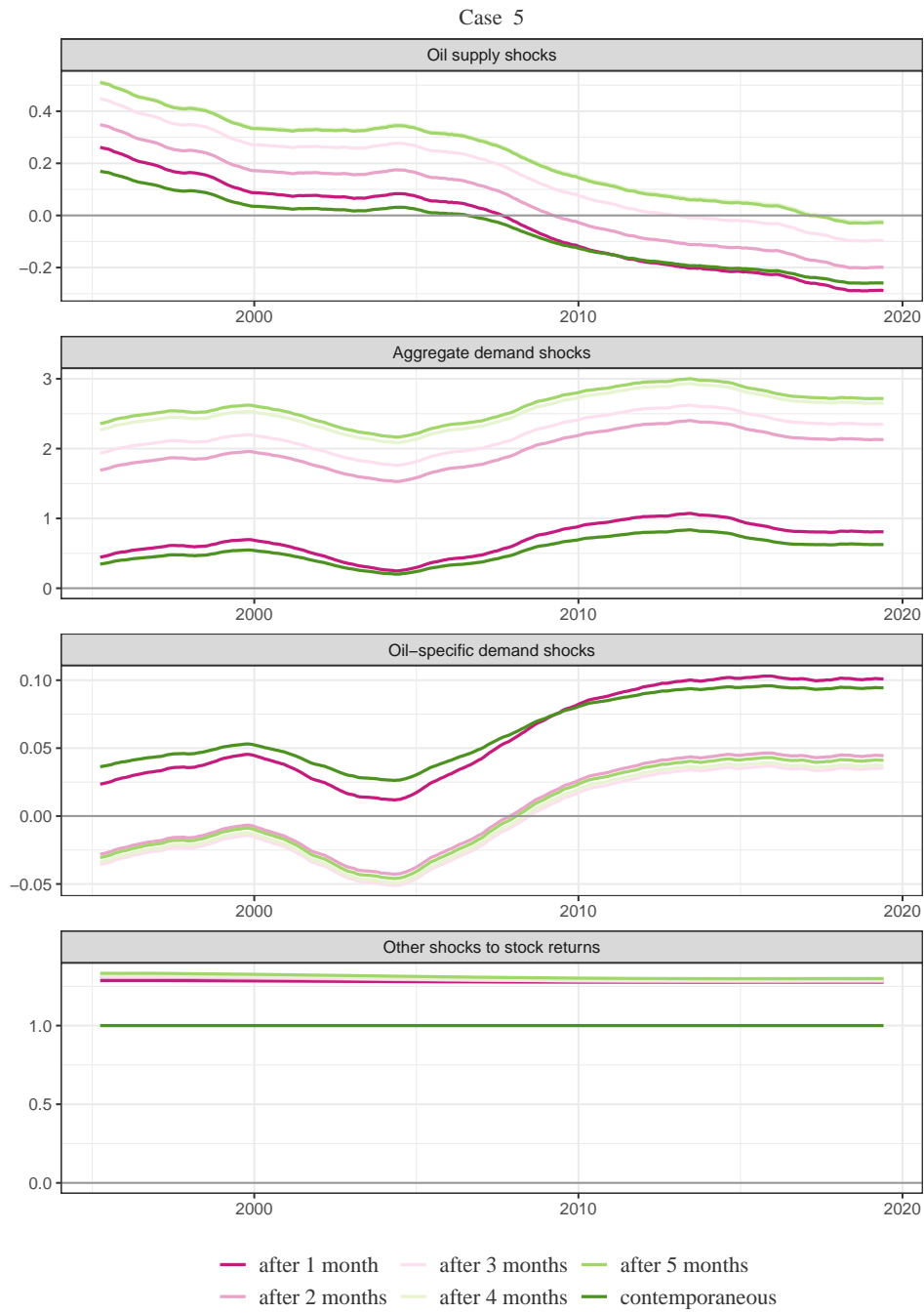
Figure S3: Responses of stock returns to structural shocks at different horizons

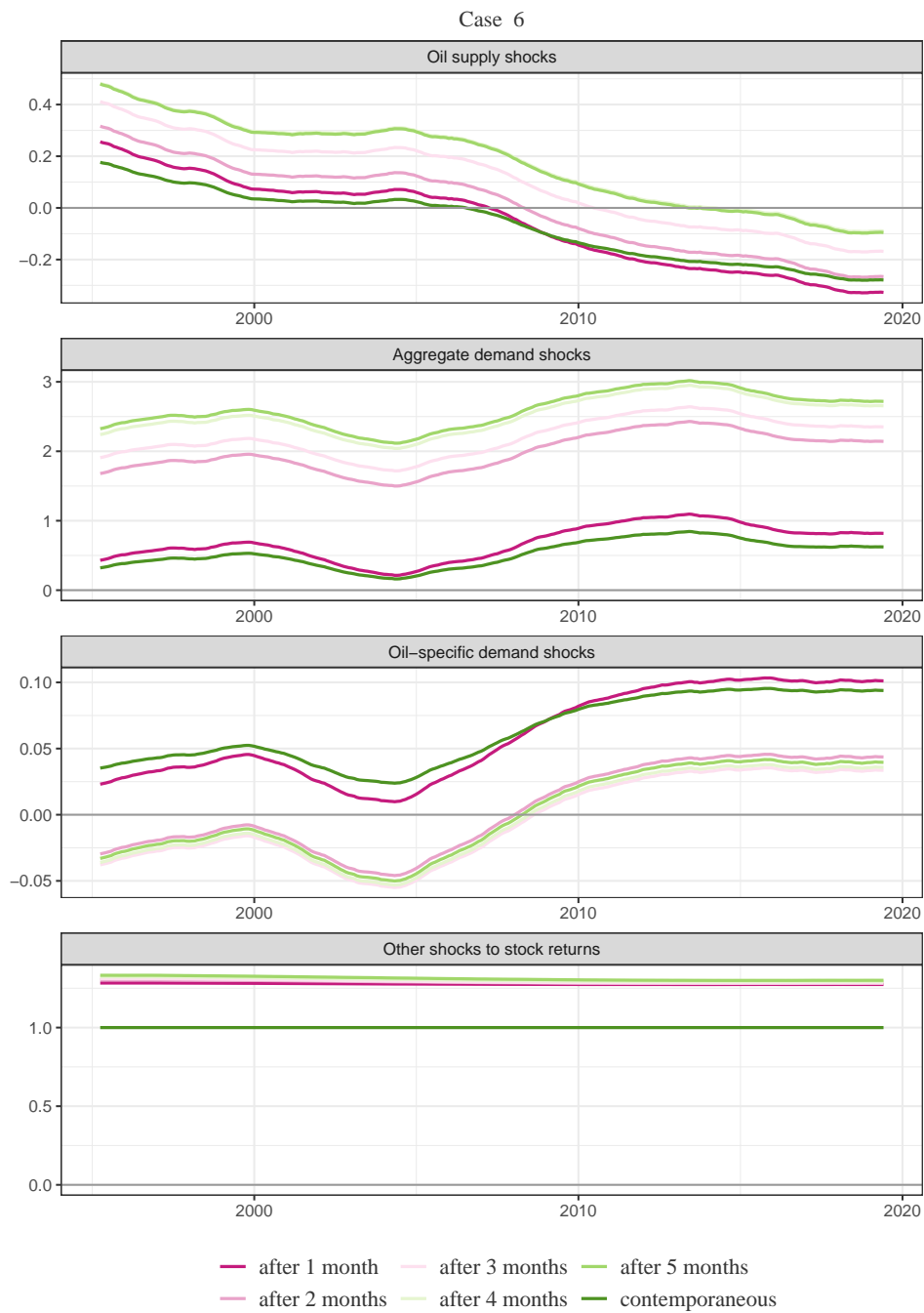




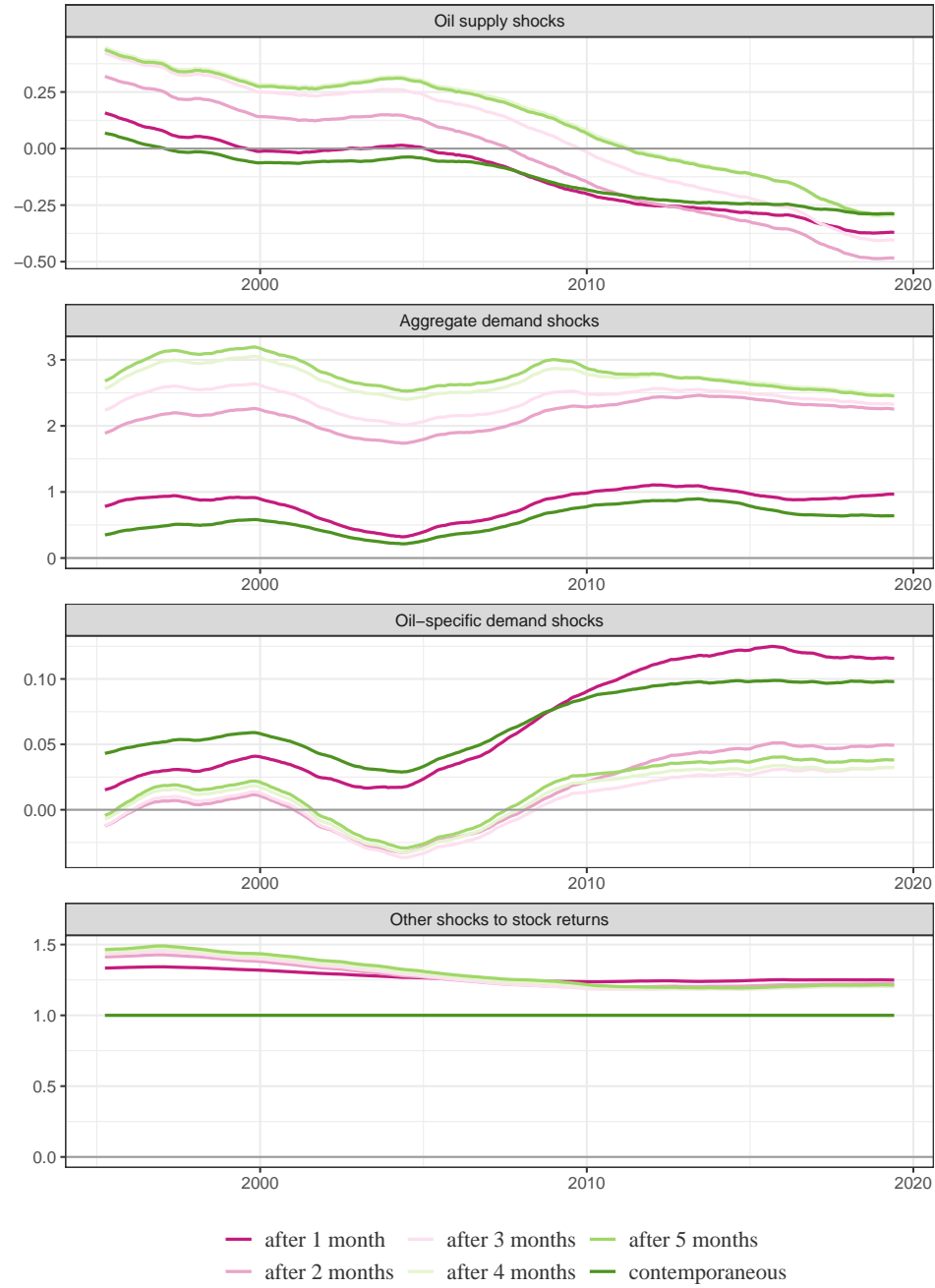




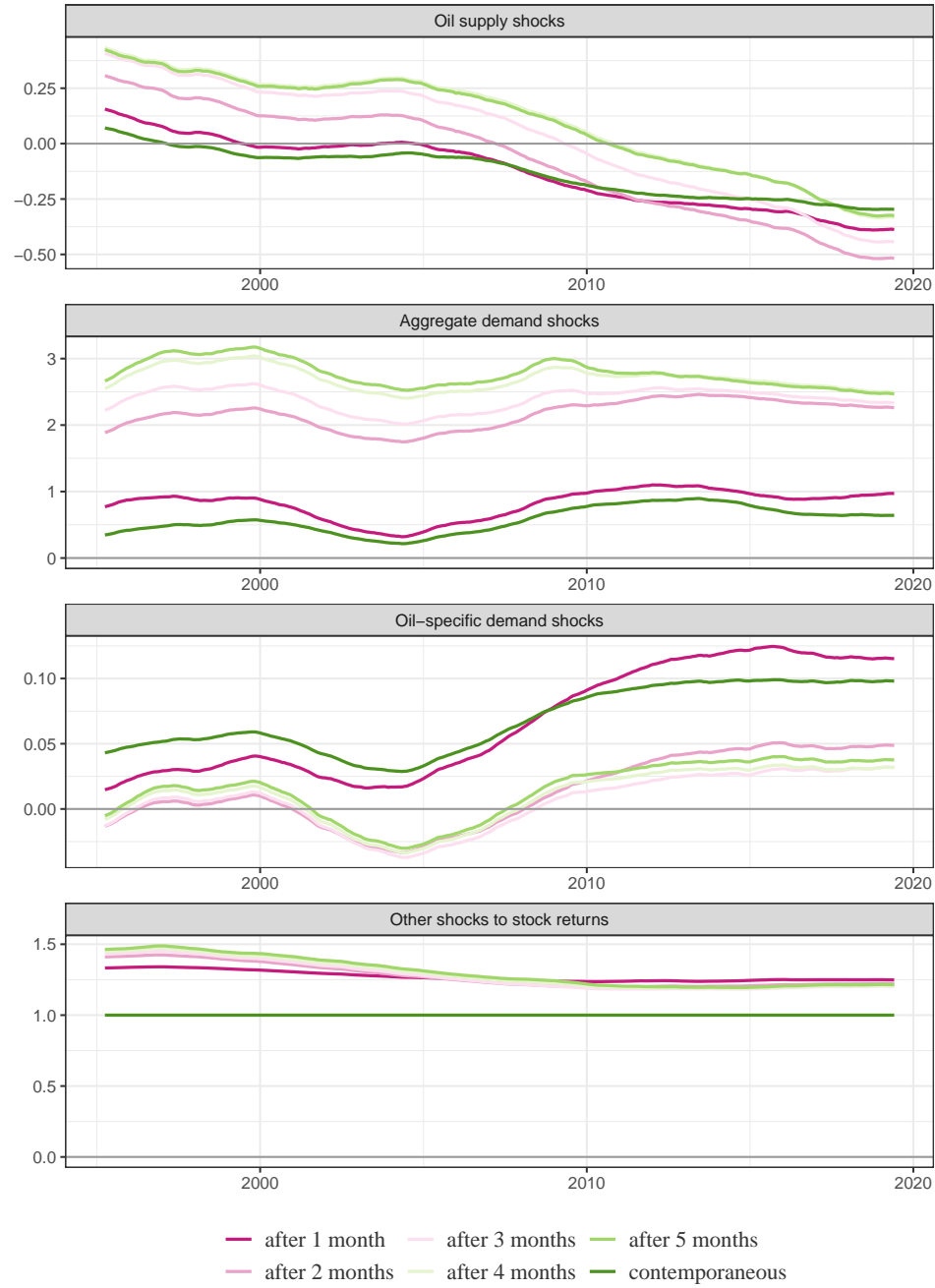




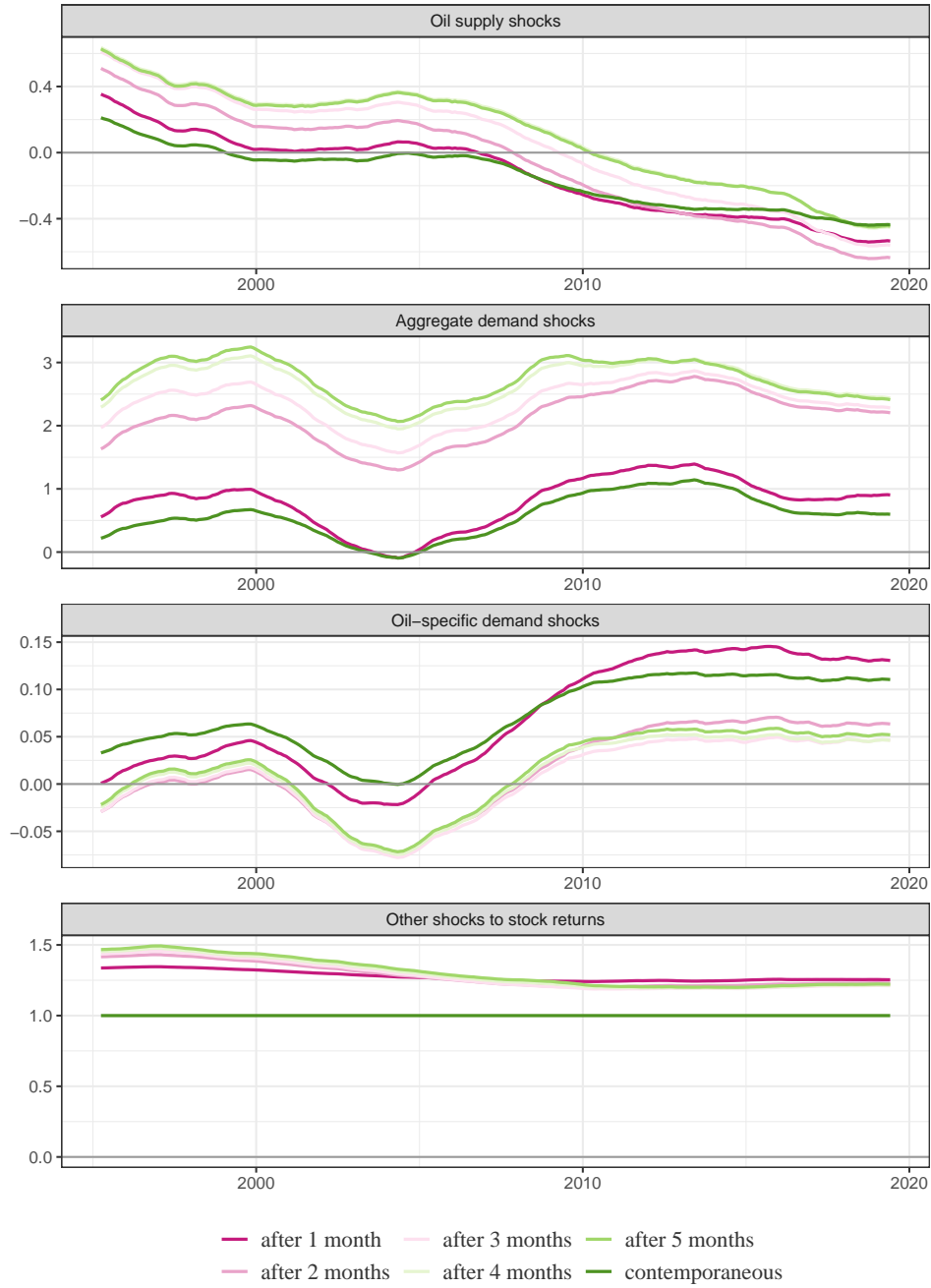
Case 7



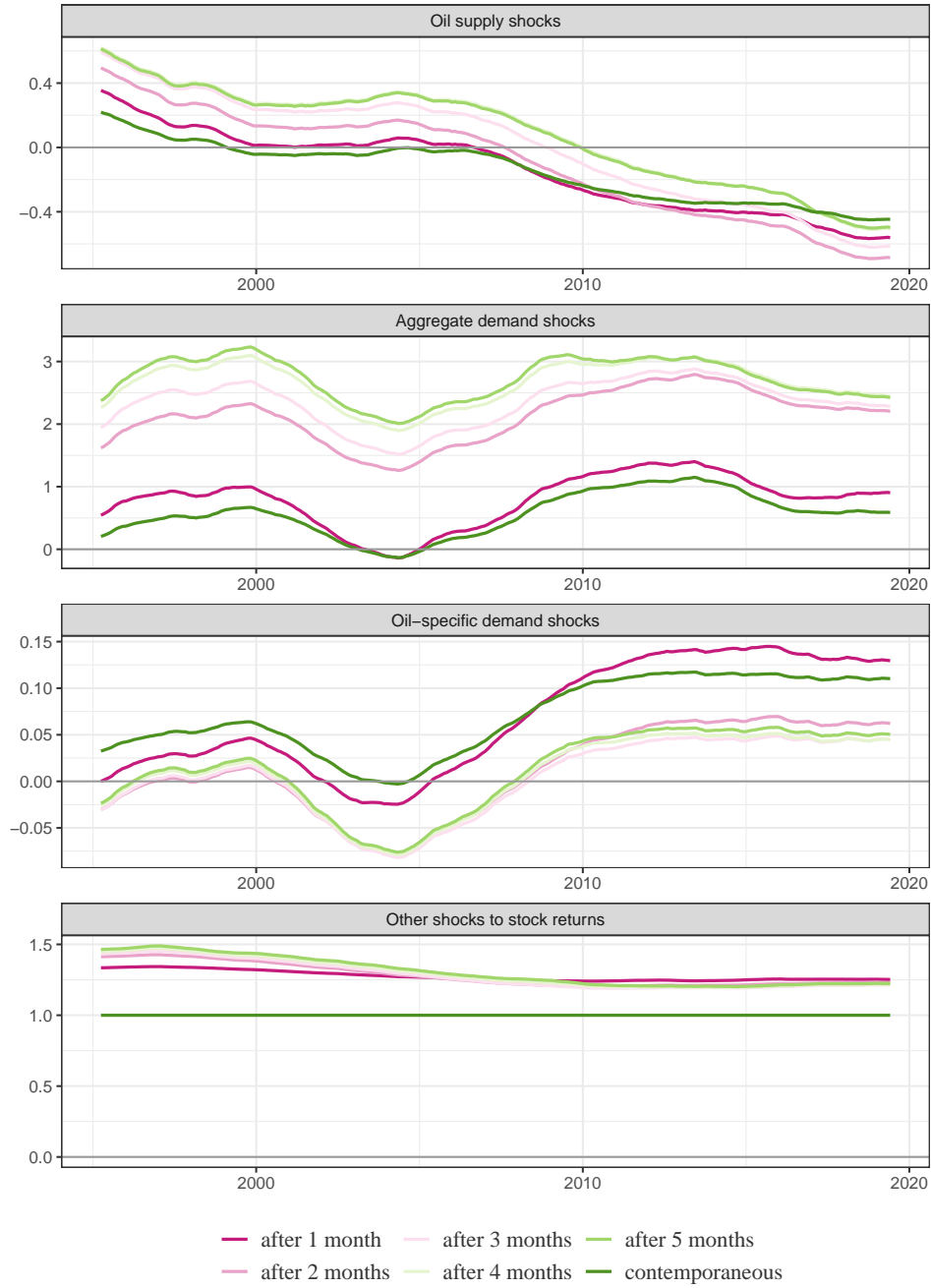
Case 8

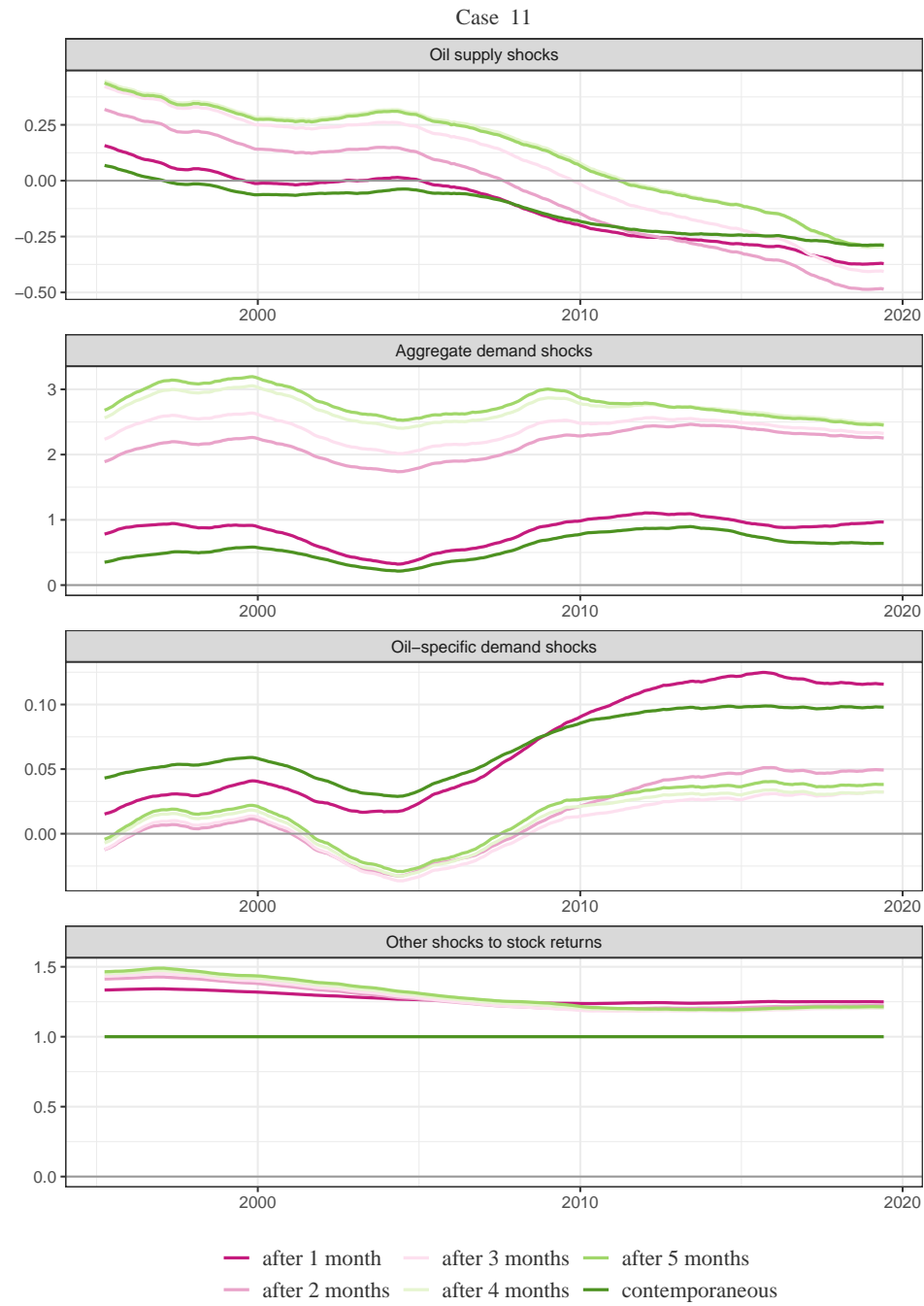


Case 9

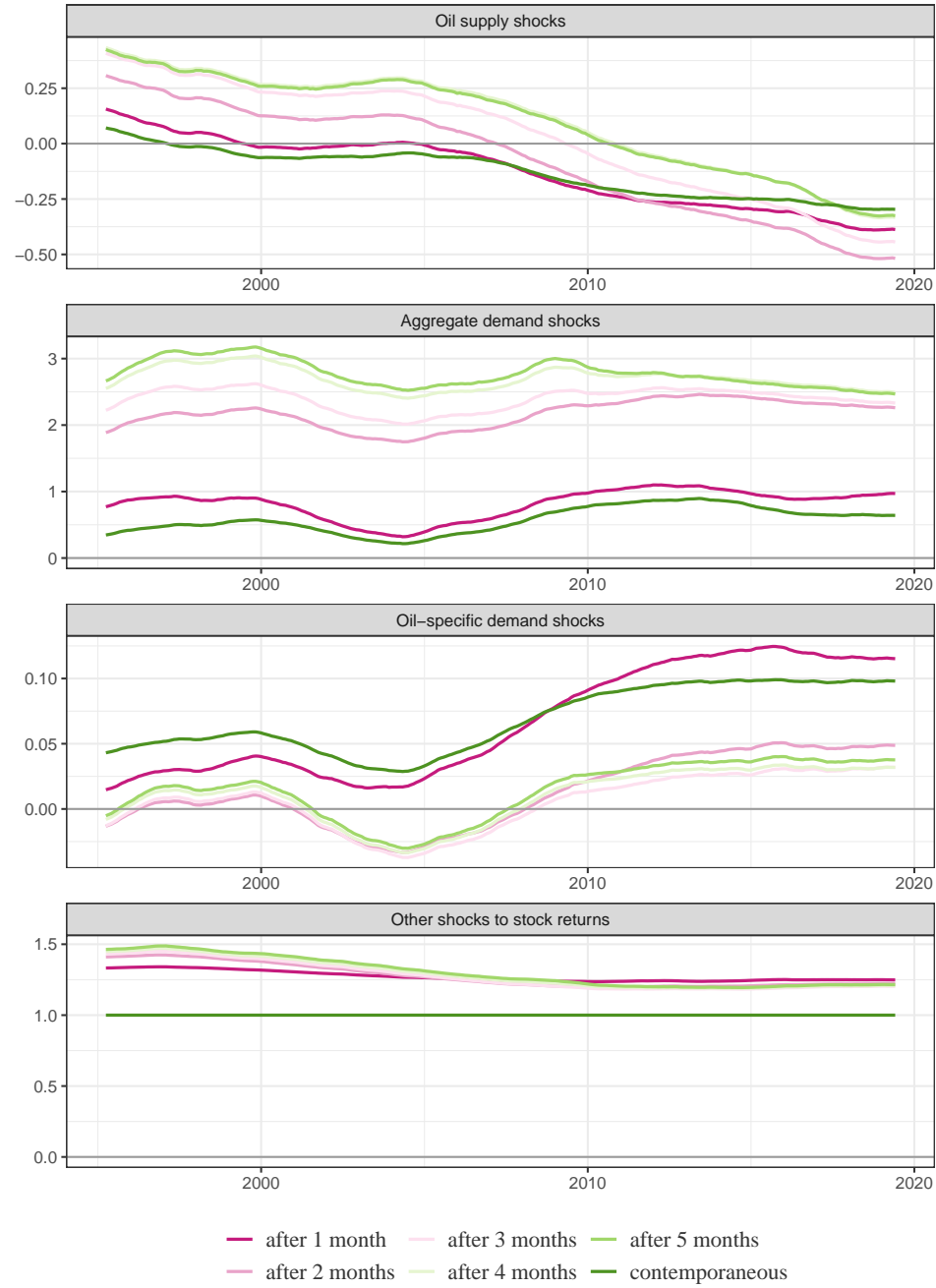


Case 10

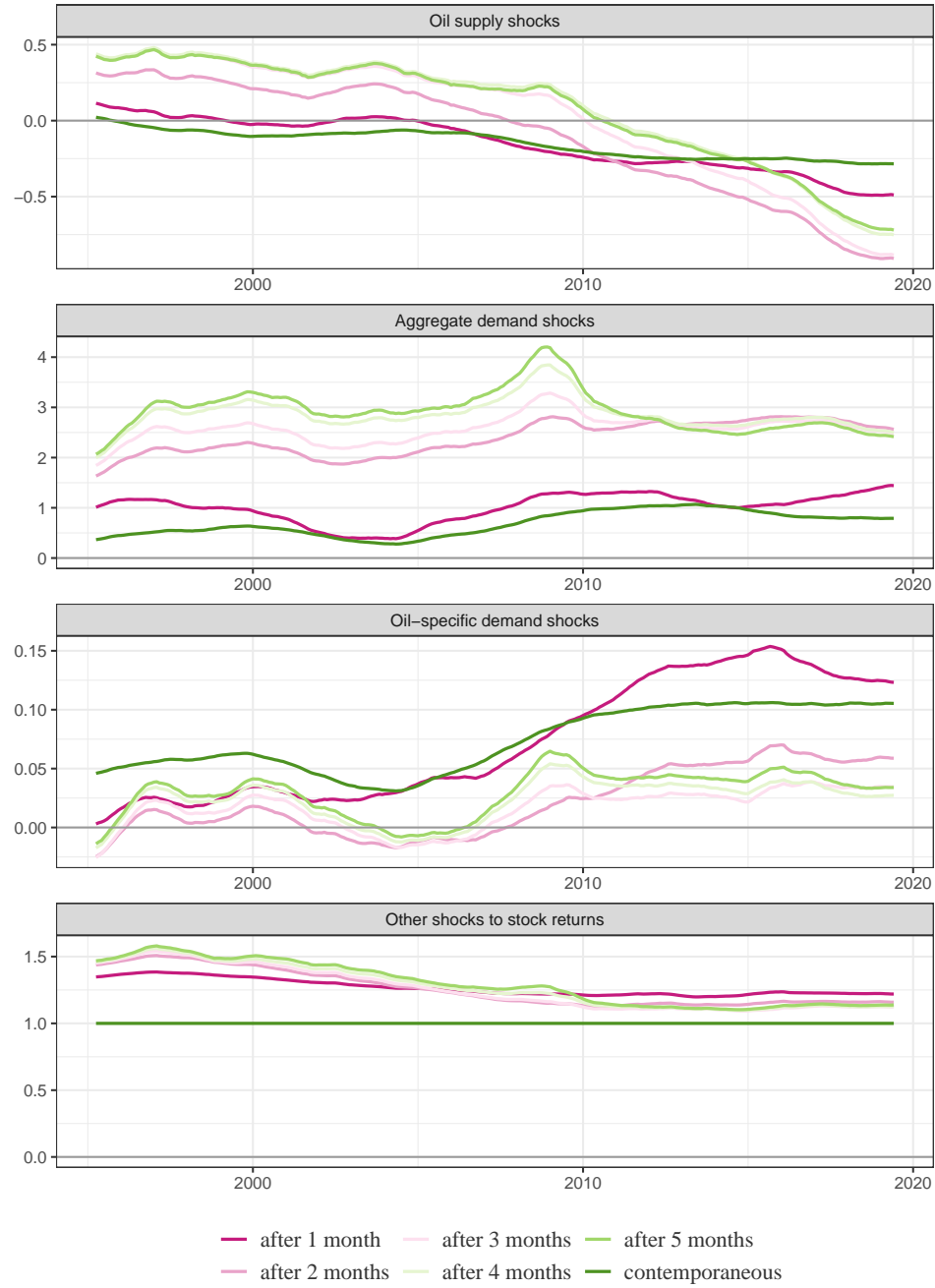




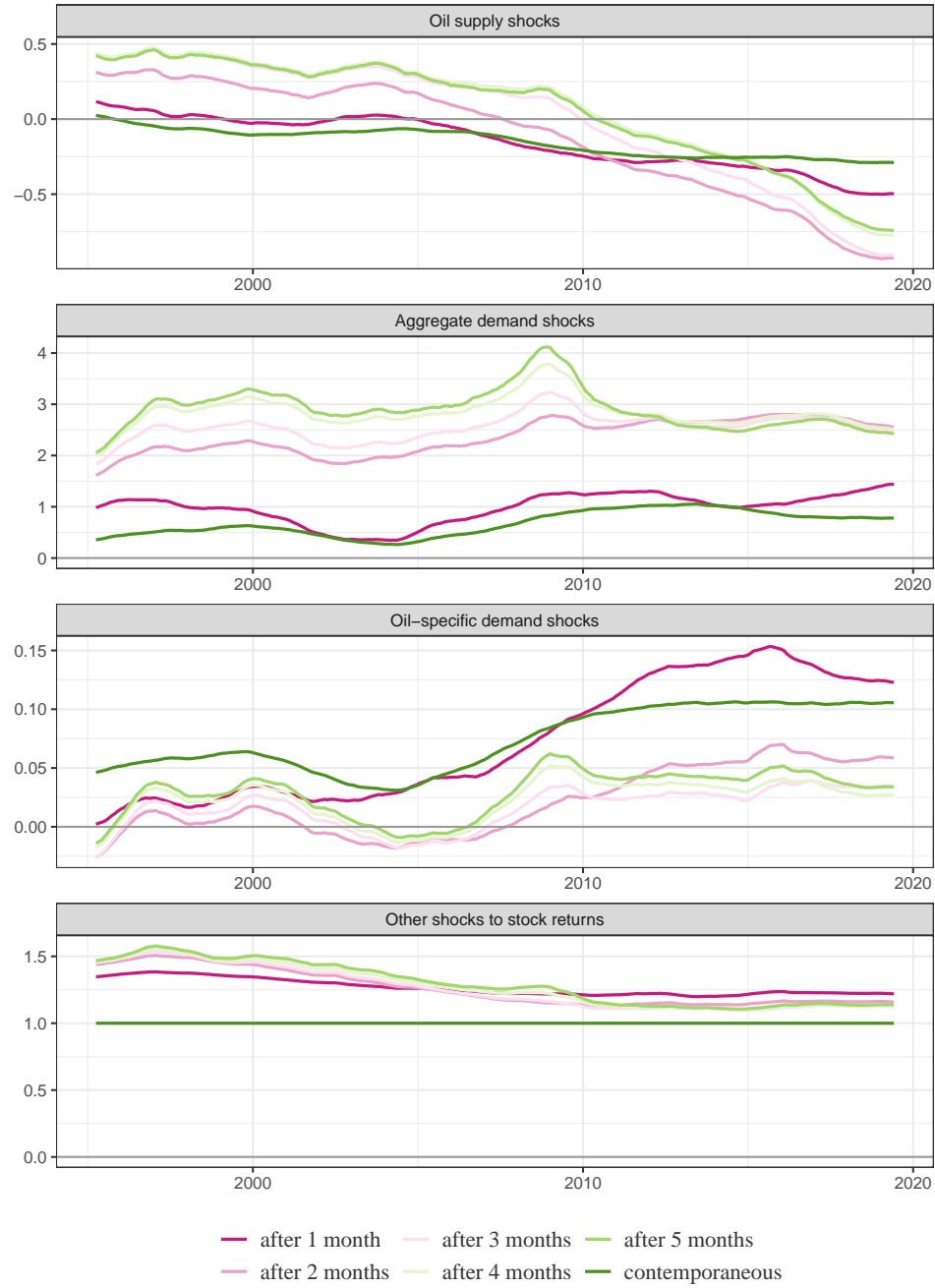
Case 12



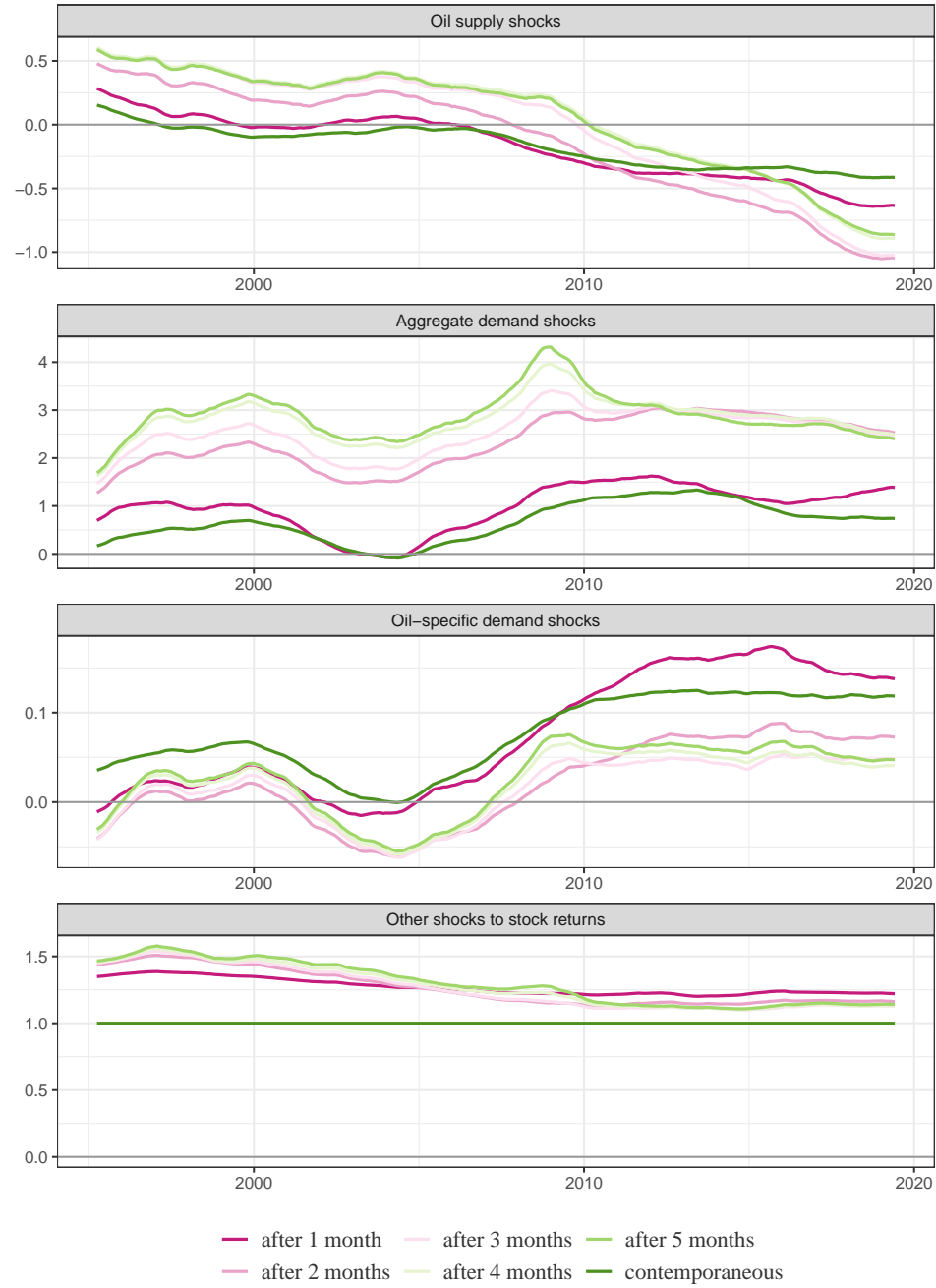
Case 13



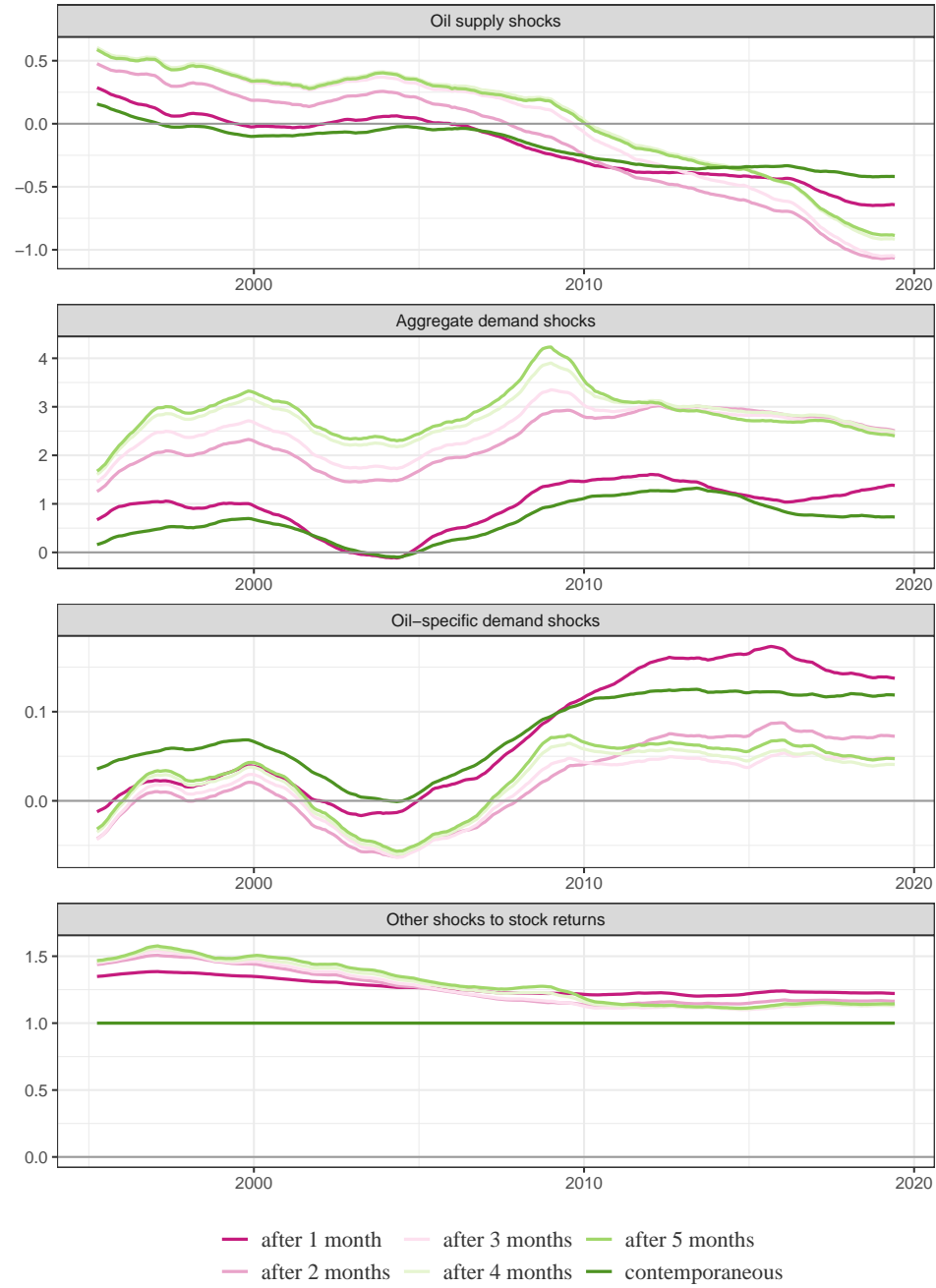
Case 14



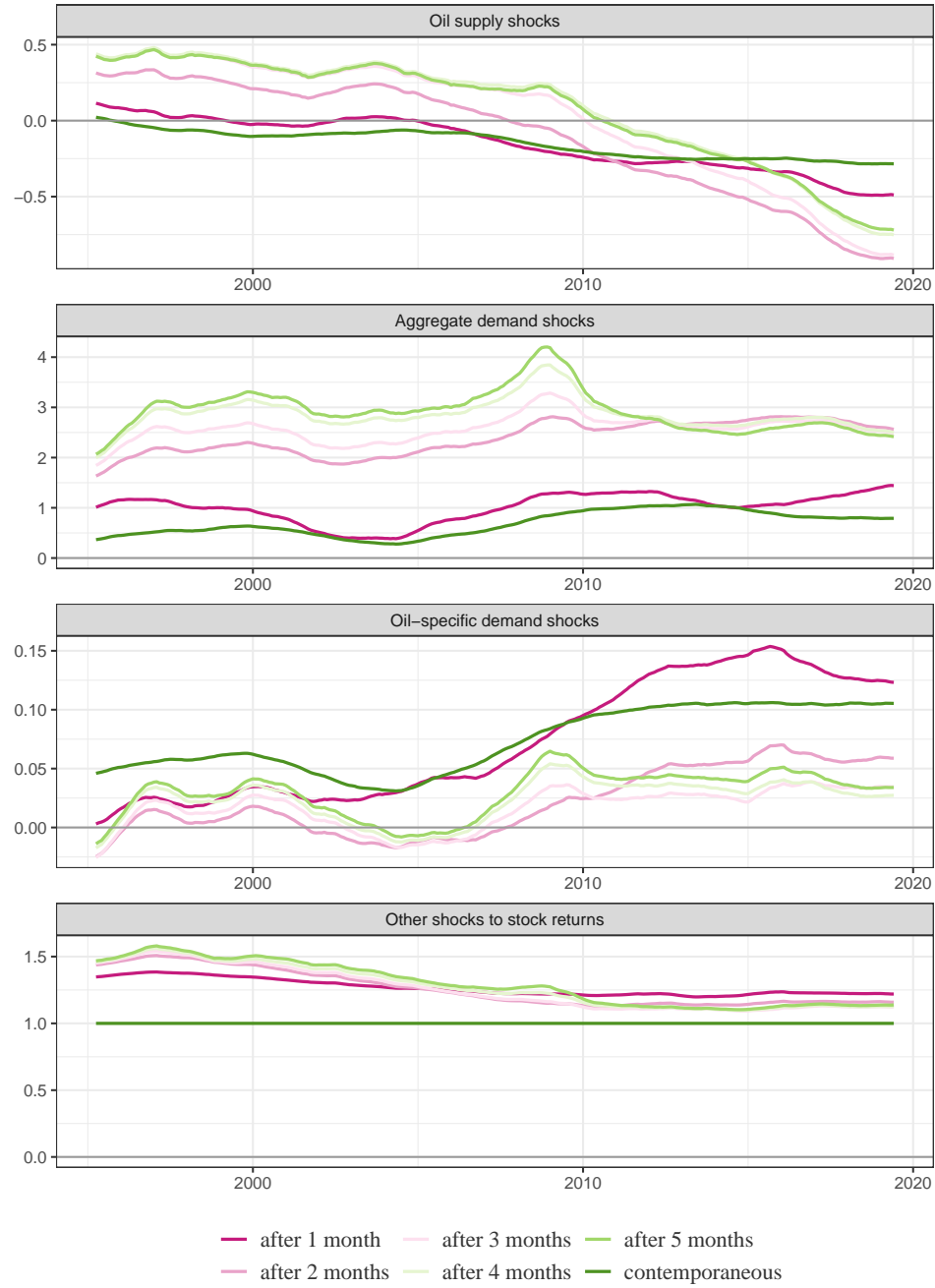
Case 15



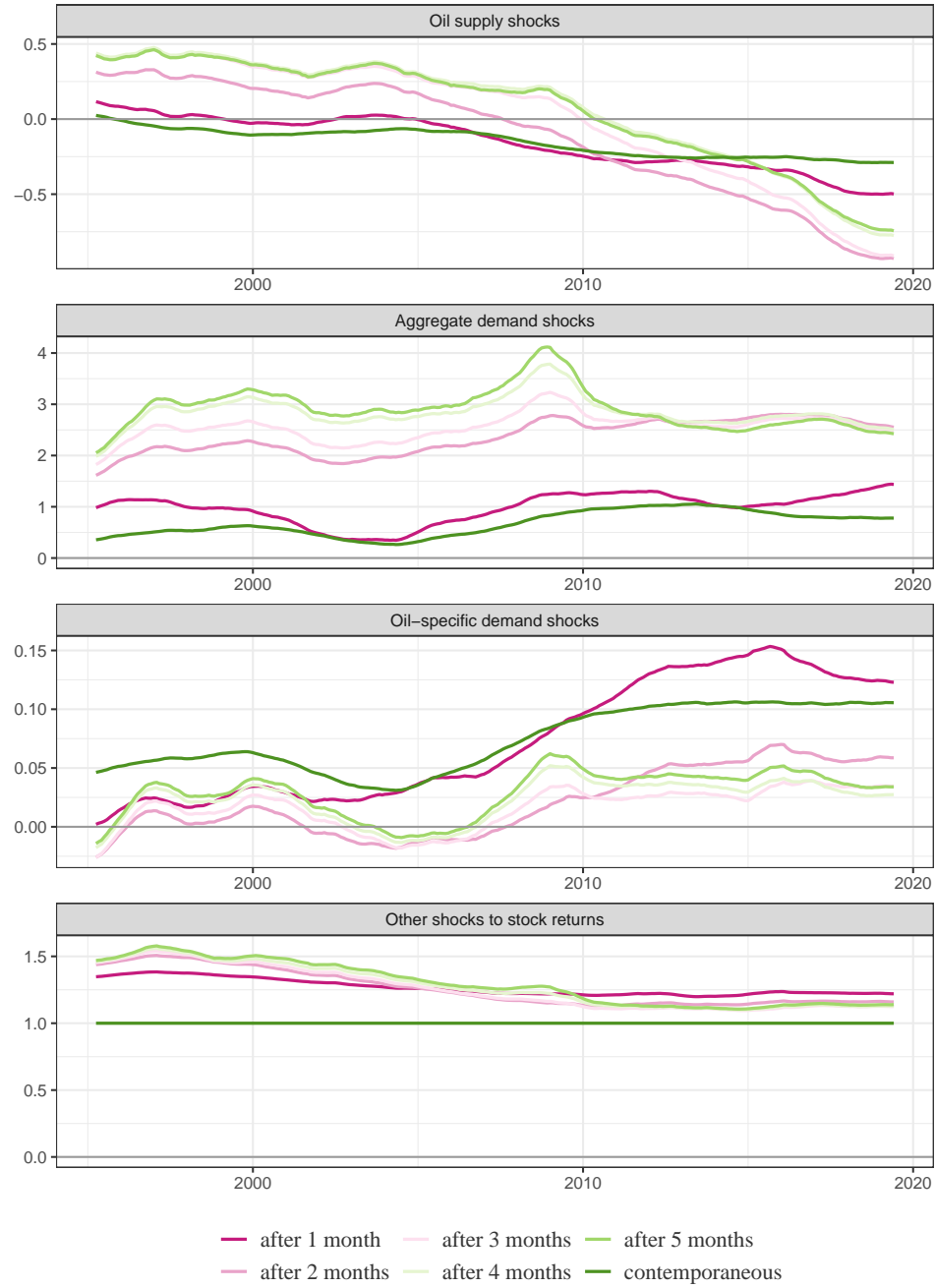
Case 16



Case 17



Case 18



References

Primiceri, G. E. (2005). Time varying structural vector autoregressions and monetary policy. *The Review of Economic Studies*, 72(3):821–852.