Hard Times

Online Appendix

This appendix reports additional estimation results under different assumptions. In particular, it contains the following tables:

Table A1: estimation results for the restricted 5-variable VAR model where the stationarity restriction on the VAR imposes that the absolute value of the largest eigenvalue of the VAR transition matrix is less than 0.98 (as opposed to 0.99 as in Table 4 of the main text).

Table A2: estimation results for the restricted 5-variable VAR model where cash-flow and discount-rate betas are allowed to be different in the pre-1963 and post-1963 subperiods.

Table A1 - restricted VAR estimate, 5 variables, Max Eig 0.98

VAR estimate	Rm	PE	TY	VS	DEF	R squared
Rm	0.106	-0.061	0.013	0.001	-0.052	-0.038
	(0.084)	(0.017)	(0.006)	(0.023)	(0.027)	
PE	0.192	0.961	0.010	0.004	-0.031	0.928
	(0.088)	(0.015)	(0.006)	(0.023)	(0.025)	
TY	-0.182	0.028	0.777	0.026	0.171	0.702
	(0.301)	(0.096)	(0.049)	(0.113)	(0.088)	
VS	-0.014	0.011	-0.004	0.941	0.036	0.945
	(0.066)	(0.018)	(0.005)	(0.017)	(0.013)	
DEF	-0.795	-0.005	-0.017	0.029	0.979	0.804
	(0.372)	(0.033)	(0.016)	(0.053)	(0.092)	
Error to Ncf	1.373	-1.603	0.056	-0.329	-0.686	
Error to -Ndr	-0.373	1.603	-0.056	0.329	0.686	
Structural Error to Ncf	0.114	0.002	0.027	-0.088	-0.150	
Structural Error to -Ndr	-0.004	-0.002	-0.027	0.088	0.150	

News terms corr/std	Ncf	-Ndr		Gamma	7.009
Ncf	0.210	-0.851			
-Ndr	-0.851	0.176		J-stat p-value	0.063

Note: table mirrors Table 4 (GMM estimation of the five-variable VAR with the additional ICAPM conditions), when the maximum eigenvalue of the transition matrix is restricted to be less than 0.98.

Table A2 - restricted VAR estimate, 5 variables, subperiod dependent betas

VAR estimate	Rm	PE	TY	VS	DEF	R squared
Rm	-0.067	-0.038	0.003	-0.012	-0.003	0.033
	(0.069)	(0.016)	(0.006)	(0.024)	(0.024)	
PE	0.018	0.983	-0.002	-0.013	0.016	0.931
	(0.071)	(0.014)	(0.006)	(0.023)	(0.023)	
TY	-0.175	0.014	0.999	-0.002	0.008	0.659
	(0.298)	(0.028)	(0.016)	(0.051)	(0.058)	
VS	0.095	0.020	-0.011	0.956	0.027	0.946
	(0.060)	(0.019)	(0.005)	(0.019)	(0.014)	
DEF	-0.079	-0.007	0.005	0.125	0.828	0.818
	(0.312)	(0.037)	(0.015)	(0.067)	(0.085)	
Error to Ncf	0.835	-0.933	0.470	-0.201	-0.100	
Error to -Ndr	0.165	0.933	-0.470	0.201	0.100	
Structural Error to Ncf	0.011	-0.036	0.283	-0.026	-0.022	
Structural Error to -Ndr	0.096	0.036	-0.283	0.026	0.022	

News terms corr/std	Ncf	-Ndr		Gamma	15.000
Ncf	0.288	-0.936			
-Ndr	-0.936	0.303		J-stat p-value	0.058

Note: table mirrors Table 4 (GMM estimation of the five-variable VAR with the additional ICAPM conditions), when the betas of the discount rate news and the cash flow news are allowed to differ between the early period (up to 1963:2) and the recent period (from 1963:3).