

7 RE-STUDY ON DYNAMIC CONNECTEDNESS BETWEEN MACROECONOMIC INDICATORS AND THE STOCK MARKET IN CHINA

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Appendix

Table 3. Results of wavelet-based Granger causality test at different time scales

Time Domain	Result	Null hypothesis			
		SSE does not Cause MV		MV does not Cause SSE	
		F-test	P-Value	F-test	P-Value
SSE-S&P 500					
D ₁ (2-4M)	No causality	2.50530	0.1788	15.1390	0.4079
D ₂ (4-8M)	No causality	0.43412	0.6667	0.04766	0.9538
D ₃ (8-16M)	No causality	0.08520	0.9184	0.50621	0.6055
D ₄ (16-32M)	<i>SSE</i> → <i>S</i> & <i>P</i> 500	1.76363	0.07152	0.46655	0.6281
D ₅ (>32M)	<i>SSE</i> → <i>S</i> & <i>P</i> 500	3.48793	0.0325	0.40912	0.6648
SSE-RS					

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Time Domain	Result	Null hypothesis			
		SSE does not Cause MV		MV does not Cause SSE	
		F-test	P-Value	F-test	P-Value
D ₁ (2-4M)	No causality	3.00110	0.3779	0.03990	0.9623
D ₂ (4-8M)	No causality	0.22479	0.8051	0.05571	0.9463
D ₃ (8-16M)	No causality	0.50052	0.6080	0.01599	0.9841
D ₄ (16-32M)	No causality	0.07230	0.9303	0.27878	0.7571
D ₅ (>32M)	<i>SSE</i> → <i>RS</i>	1.63709	0.0299	1.27479	0.2818
SSE-TT					
D ₁ (2-4M)	No causality	1.52786	0.4966	1.41052	0.5116
D ₂ (4-8M)	No causality	0.04999	0.9516	0.45820	0.6528
D ₃ (8-16M)	No causality	2.18756	0.1183	1.57154	0.2136
D ₄ (16-32M)	<i>SSE</i> → <i>TT</i>	2.43233	0.0915	0.36857	0.6924
D ₅ (>32M)	<i>SSE</i> → <i>TT</i>	2.42843	0.0909	0.34655	0.7076
SSE-HM					
D ₁ (2-4M)	No causality	2.58643	0.4025	0.05397	0.9500
D ₂ (4-8M)	No causality	0.06064	0.9417	0.23762	0.7956
D ₃ (8-16M)	No causality	0.62575	0.5372	0.48923	0.6148
D ₄ (16-32M)	No causality	0.02519	0.9751	0.06588	0.9363
D ₅ (>32M)	<i>SSE</i> → <i>HM</i>	1.23392	0.07016	0.16257	0.8501
SSE-TBR					
D ₁ (2-4M)	No causality	8.47932	0.1272	30.4146	0.2360
D ₂ (4-8M)	<i>SSE</i> → <i>TBR</i>	3.88810	0.0426	0.29177	0.7570
D ₃ (8-16M)	<i>SSE</i> → <i>TBR</i>	5.02914	0.0086	0.24345	0.7845
D ₄ (16-32M)	<i>SSE</i> → <i>TBR</i>	10.5980	0.0000	0.87190	0.4204
D ₅ (>32M)	<i>SSE</i> → <i>TBR</i>	6.36254	0.0021	0.79843	0.4515
SSE-TBY					

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Time Domain	Result	Null hypothesis			
		SSE does not Cause MV		MV does not Cause SSE	
		F-test	P-Value	F-test	P-Value
D ₁ (2-4M)	No causality	2.11018	0.4377	0.61393	0.6700
D ₂ (4-8M)	No causality	0.06912	0.9340	0.48591	0.6374
D ₃ (8-16M)	No causality	0.31186	0.7329	0.30875	0.7352
D ₄ (16-32M)	<i>SSE → TBY</i>	2.27724	0.0164	0.00874	0.9913
D ₅ (>32M)	No causality	1.85218	0.1597	1.85218	0.1597
SSE-MS					
D ₁ (2-4M)	No causality	0.22467	0.8306	0.40649	0.7427
D ₂ (4-8M)	<i>MS → SSE</i>	1.52437	0.2915	7.71754	0.0219
D ₃ (8-16M)	No causality	0.05135	0.9500	0.14821	0.8625
D ₄ (16-32M)	No causality	0.75892	0.4701	0.39934	0.6715
D ₅ (>32M)	No causality	0.46664	0.6278	0.33934	0.7127
SSE-CPI					
D ₁ (2-4M)	No causality	0.10571	0.9086	0.16995	0.8639
D ₂ (4-8M)	No causality	0.04881	0.9527	1.94475	0.2233
D ₃ (8-16M)	No causality	0.21597	0.8062	0.18137	0.8344
D ₄ (16-32M)	<i>SSE → CPI</i>	1.45933	0.0259	0.00992	0.9901
D ₅ (>32M)	<i>SSE → CPI</i>	1.27378	0.0821	0.18636	0.8301
SSE-ER					
D ₁ (2-4M)	No causality	5.69905	0.2840	6.50652	0.2671
D ₂ (4-8M)	No causality	0.02185	0.9785	0.97291	0.4306
D ₃ (8-16M)	No causality	0.73781	0.4811	1.36870	0.2599
D ₄ (16-32M)	<i>SSE → ER</i>	1.40043	0.0499	0.89581	0.4106
D ₅ (>32M)	No causality	0.85669	0.4262	0.84368	.4317
SSE-GOLD					
D ₁ (2-4M)	No causality	2.24289	0.4270	0.11132	0.9044
D ₂ (4-8M)	No causality	0.01090	0.9892	1.89392	0.2304

Time Domain	Result	Null hypothesis			
		SSE does not Cause MV		MV does not Cause SSE	
		F-test	P-Value	F-test	P-Value
D ₃ (8-16M)	No causality	0.10342	0.9019	0.11288	0.8934
D ₄ (16-32M)	No causality	0.79652	0.4529	0.08867	0.9152
D ₅ (>32M)	<i>GOLD</i> → <i>SSE</i>	0.63056	0.5334	2.00263	0.0776
SSE-OIL					
D ₁ (2-4M)	No causality	0.24044	0.8218	0.07150	0.9354
D ₂ (4-8M)	No causality	0.34761	0.7197	0.59247	0.5824
D ₃ (8-16M)	No causality	1.46239	0.2373	1.52344	0.2237
D ₄ (16-32M)	<i>OIL</i> → <i>SSE</i>	2.18125	0.1167	2.65415	0.0739
D ₅ (>32M)	<i>OIL</i> → <i>SSE</i>	1.50073	0.2256	3.59181	0.0294
SSE-IPI					
D ₁ (2-4M)	<i>IPI</i> → <i>SSE</i>	0.05658	0.9478	2.53592	0.0444
D ₂ (4-8M)	No causality	0.35409	0.7156	1.03066	0.4123
D ₃ (8-16M)	<i>SSE</i> → <i>IPI</i>	2.72608	0.0711	0.48353	0.6182
D ₄ (16-32M)	<i>SSE</i> → <i>IPI</i>	5.15880	0.0069	2.09423	0.1270
D ₅ (>32M)	<i>SSE</i> ↔ <i>IPI</i>	3.43932	0.0341	2.89394	0.0578

Notes: *MV* denotes macroeconomic variables.
Source: Own calculations