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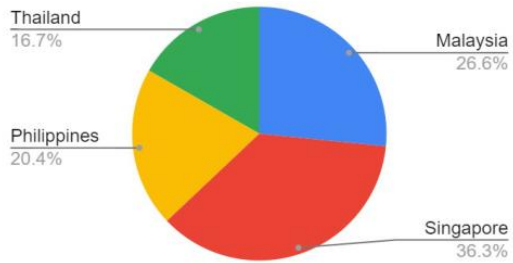
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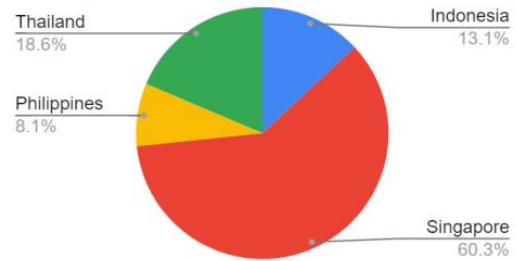
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Lampiran 1: Proporsi Perdagangan Antarnegara ASEAN-5

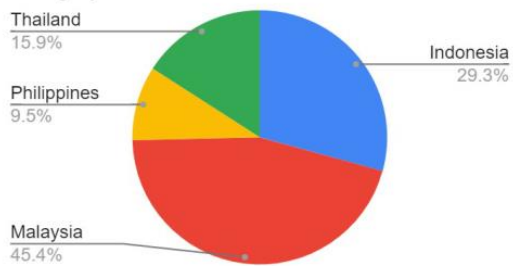
Indonesia



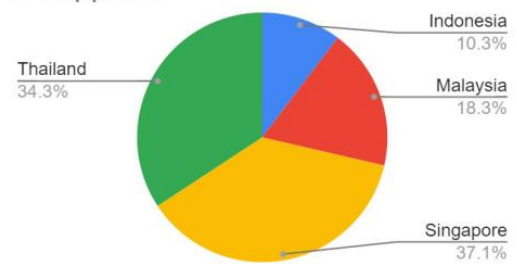
Malaysia



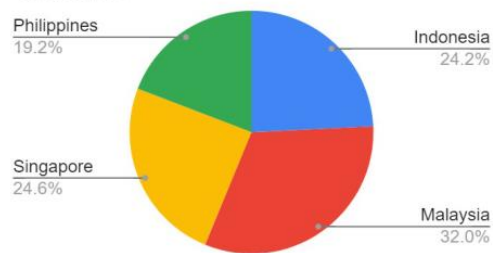
Singapore



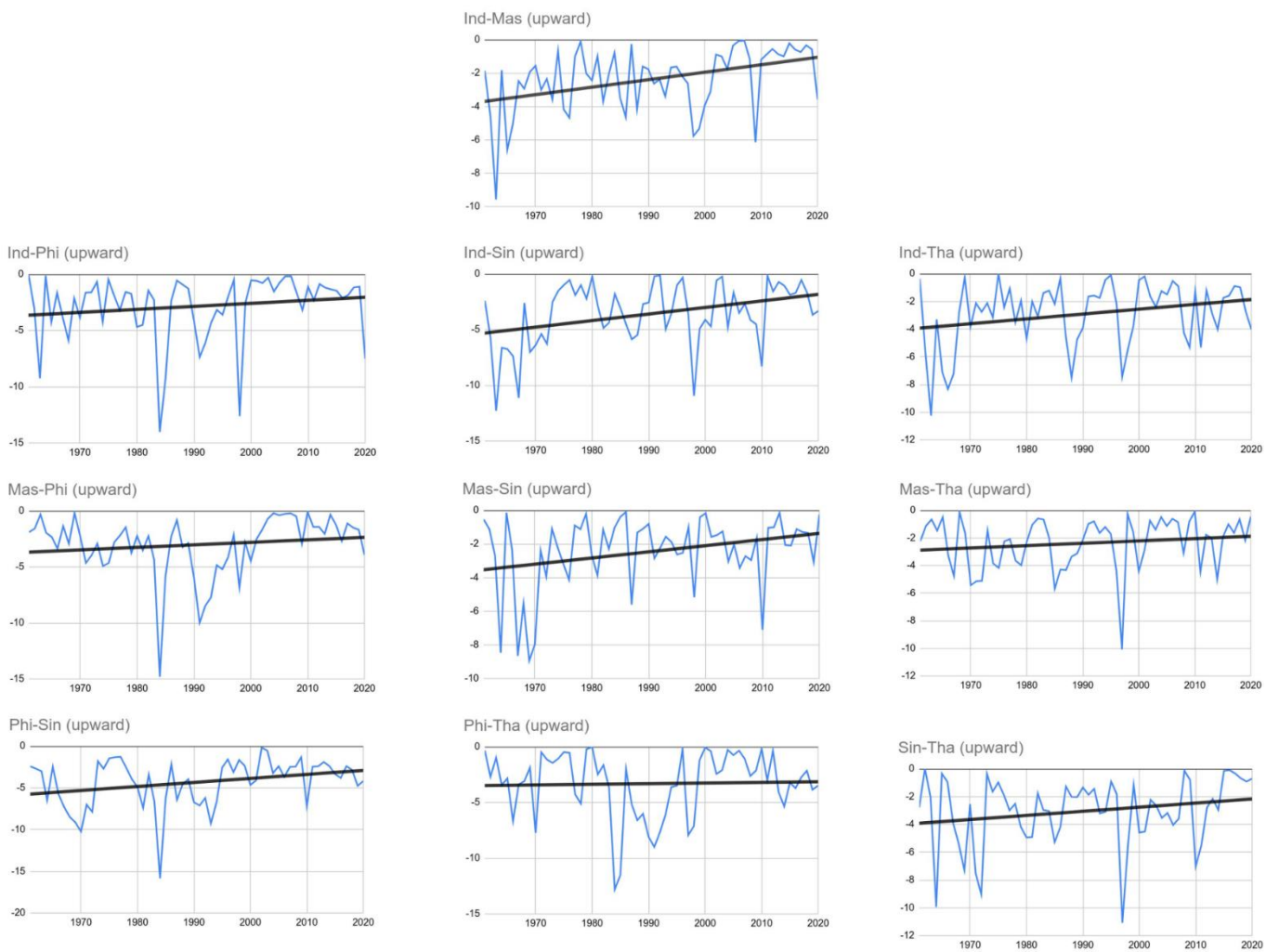
Philippines



Thailand

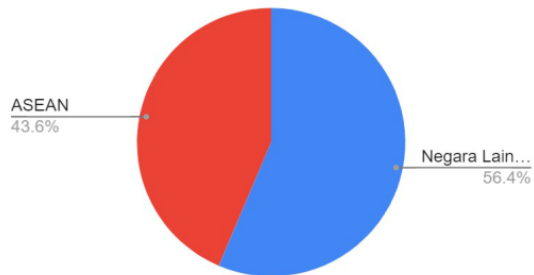


Lampiran 2: Tren Sinkronisasi Siklus Bisnis

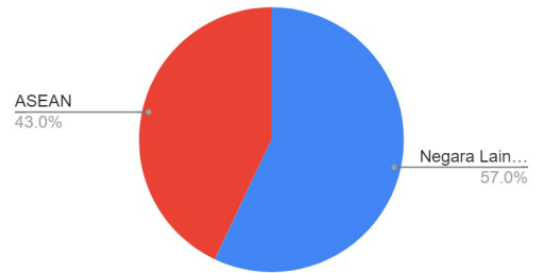


Lampiran 3: Proporsi Perdagangan Antara ASEAN vs Negara Lainnya

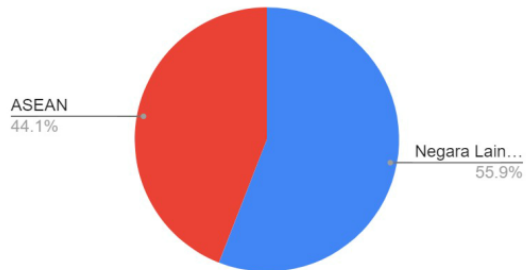
Indonesia



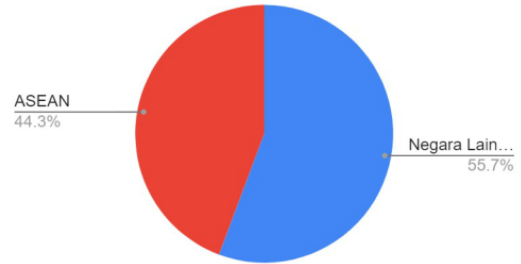
Malaysia



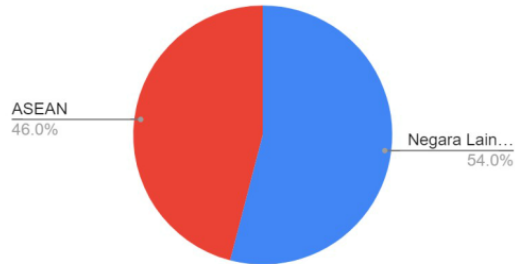
Singapore



Thailand



Philippines



Data

1. Logaritma Natural GDP dan GDP Inflasi

Tahun	Indonesia		Malaysia		Singapura		Filipina		Thailand	
	LN(Y)	LN(P)	LN(Y)	LN(P)	LN(Y)	LN(P)	LN(Y)	LN(P)	LN(Y)	LN(P)
1960	24.68935	-2.64712	23.03333	2.701896	22.50545	3.273581	24.1683	-0.01239	23.49013	2.740345
1961	24.74517	-2.51666	23.10656	2.621136	22.58368	3.276899	24.22369	0.018296	23.54237	2.776664
1962	24.76342	-1.49109	23.16879	2.609964	22.6565	3.281568	24.27102	0.083406	23.61519	2.782055
1963	24.7408	-0.59158	23.23961	2.765579	22.75218	3.290775	24.33883	0.168755	23.69215	2.770319
1964	24.77549	0.17264	23.29181	2.776783	22.72066	3.296407	24.37229	0.213551	23.75823	2.796744
1965	24.78625	1.362977	23.36585	2.802961	22.79608	3.307174	24.42436	0.251712	23.83687	2.839004
1966	24.81378	-2.98278	23.44112	2.78909	22.89303	3.327971	24.46781	0.303996	23.94234	2.918234
1967	24.82749	-2.00927	23.47896	2.765585	23.01089	3.331581	24.51872	0.324978	24.02498	2.901417
1968	24.93108	-1.20739	23.55572	2.732228	23.13776	3.34585	24.56788	0.386942	24.10308	2.898884
1969	24.99708	-1.01386	23.60345	2.780122	23.26732	3.368371	24.61371	0.444372	24.16653	2.931674
1970	25.06991	-0.88061	23.66159	2.775015	23.39785	3.38372	24.64996	0.586758	24.27456	2.880431
1971	25.13779	-0.85373	23.75721	2.770317	23.51486	3.431111	24.70245	0.722326	24.32235	2.872537
1972	25.2058	-0.70428	23.84695	2.77375	23.63987	3.486792	24.75533	0.786022	24.36424	2.933979
1973	25.28372	-0.39035	23.95761	2.938197	23.74064	3.610869	24.83951	0.943947	24.4617	3.103263
1974	25.3573	-0.00298	24.03751	3.057838	23.80002	3.762004	24.87289	1.228301	24.50539	3.28837
1975	25.40587	0.114519	24.04549	3.026579	23.83906	3.790552	24.92597	1.318869	24.5539	3.322656
1976	25.47247	0.249546	24.15492	3.14637	23.9108	3.807604	25.01011	1.399369	24.64307	3.366645
1977	25.55645	0.371874	24.22959	3.212768	23.97708	3.82747	25.06425	1.47972	24.73696	3.425052
1978	25.62193	0.485781	24.29401	3.306626	24.05198	3.867092	25.11487	1.56916	24.83496	3.517606
1979	25.69262	0.757237	24.38338	3.420485	24.14323	3.918124	25.16932	1.708409	24.88728	3.600527

Tahun	Indonesia		Malaysia		Singapura		Filipina		Thailand	
	LN(Y)	LN(P)	LN(Y)	LN(P)	LN(Y)	LN(P)	LN(Y)	LN(P)	LN(Y)	LN(P)
1980	25.78684	1.013006	24.45516	3.486976	24.23957	4.02363	25.22002	1.841493	24.93772	3.720108
1981	25.86312	1.109685	24.52228	3.49752	24.34227	4.080722	25.25367	1.952719	24.99511	3.800511
1982	25.88534	1.186188	24.58001	3.522789	24.41088	4.125055	25.28998	2.035621	25.04725	3.849852
1983	25.92641	1.356881	24.64066	3.580212	24.49296	4.156275	25.30877	2.168824	25.10159	3.885694
1984	25.99384	1.456019	24.71541	3.627027	24.57723	4.164123	25.23578	2.593826	25.15752	3.900069
1985	26.01817	1.516092	24.7051	3.610837	24.57099	4.149361	25.16473	2.751352	25.20295	3.921607
1986	26.07526	1.538379	24.71743	3.519628	24.58433	4.136753	25.19924	2.779861	25.25681	3.938004
1987	26.12334	1.686832	24.76805	3.593498	24.68686	4.142065	25.24193	2.852155	25.34773	3.984154
1988	26.17954	1.760353	24.86279	3.629059	24.7936	4.194947	25.30675	2.94528	25.4725	4.041653
1989	26.25145	1.850971	24.94952	3.672709	24.89035	4.235699	25.36675	3.032374	25.58753	4.101023
1990	26.32137	1.93801	25.03577	3.71008	24.98403	4.281602	25.39711	3.15421	25.69339	4.157149
1991	26.38821	2.022048	25.12694	3.745299	25.04877	4.324999	25.39274	3.30603	25.77551	4.213024
1992	26.45116	2.092403	25.21207	3.769155	25.11306	4.338782	25.39691	3.381897	25.85324	4.25695
1993	26.5141	2.267637	25.30642	3.808251	25.22158	4.372732	25.41849	3.447775	25.93253	4.319837
1994	26.58679	2.342527	25.39454	3.846868	25.32682	4.406756	25.4613	3.543632	26.00947	4.365506
1995	26.66579	2.436765	25.4883	3.882558	25.39635	4.437786	25.50651	3.617276	26.08754	4.421321
1996	26.74107	2.51997	25.58363	3.918696	25.46841	4.452736	25.56347	3.691353	26.14252	4.461485
1997	26.78699	2.638387	25.6543	3.952927	25.54833	4.463494	25.61403	3.75207	26.1146	4.504747
1998	26.64627	3.199552	25.57786	4.034495	25.52613	4.450161	25.60888	3.851061	26.03519	4.582298
1999	26.65415	3.331993	25.63743	4.03495	25.58179	4.413673	25.64179	3.912482	26.0799	4.55619
2000	26.70218	3.518036	25.72231	4.119798	25.66833	4.451573	25.68468	3.969022	26.12348	4.569413
2001	26.73797	3.651655	25.72747	4.103853	25.65758	4.433243	25.71472	4.023689	26.15735	4.588407
2002	26.78198	3.708943	25.77998	4.134662	25.69598	4.424318	25.75121	4.06513	26.21702	4.60517

Tahun	Indonesia		Malaysia		Singapura		Filipina		Thailand	
	LN(Y)	LN(P)	LN(Y)	LN(P)	LN(Y)	LN(P)	LN(Y)	LN(P)	LN(Y)	LN(P)
2003	26.82868	3.762365	25.83625	4.167119	25.74034	4.406283	25.80083	4.096552	26.28645	4.626438
2004	26.87776	3.844412	25.90188	4.225476	25.83401	4.44621	25.86445	4.15379	26.34744	4.661508
2005	26.93313	3.978346	25.95383	4.310392	25.90501	4.465105	25.91269	4.211218	26.38846	4.711117
2006	26.98668	4.110141	26.00818	4.349429	25.99124	4.483393	25.96449	4.26107	26.43695	4.760952
2007	27.04819	4.216828	26.06926	4.397089	26.07762	4.540872	26.02765	4.292223	26.48987	4.785385
2008	27.10659	4.383611	26.11645	4.495928	26.09613	4.526913	26.07018	4.361555	26.50698	4.835448
2009	27.15184	4.463113	26.1012	4.434136	26.09734	4.556094	26.08456	4.388569	26.50005	4.837394
2010	27.21222	4.60517	26.17282	4.504285	26.23297	4.56706	26.15534	4.43135	26.5725	4.877393
2011	27.27209	4.677174	26.2244	4.556995	26.29442	4.577543	26.19319	4.469789	26.58086	4.914141
2012	27.33064	4.714025	26.27769	4.566945	26.33807	4.582234	26.25989	4.489535	26.65079	4.933052
2013	27.38473	4.762492	26.32356	4.568688	26.38531	4.577727	26.32521	4.509936	26.67731	4.950683
2014	27.43358	4.815494	26.38189	4.593063	26.42393	4.575027	26.38676	4.54001	26.68711	4.964995
2015	27.48119	4.854524	26.43155	4.60517	26.45338	4.60517	26.44831	4.532787	26.71797	4.97219
2016	27.5303	4.878621	26.47509	4.621617	26.48613	4.611621	26.51736	4.545509	26.75174	4.99821
2017	27.57975	4.920652	26.53159	4.65871	26.53034	4.641239	26.58438	4.568446	26.79267	5.017031
2018	27.6302	4.958124	26.57889	4.664938	26.56472	4.674167	26.64586	4.60517	26.83371	5.031252
2019	27.67916	4.973986	26.62232	4.665681	26.57808	4.667905	26.70525	4.612117	26.85612	5.04067
2020	27.65825	4.969414	26.5642	4.657872	26.52266	4.638274	26.60462	4.628368	26.79319	5.02995

2. Sinkronisasi Siklus Bisnis, Keterbukaan Perdagangan, dan Keterbukaan Keuangan (IND-MYS, IND-SGP, IND-PHP, IND-THA)

Tahun	Indonesia-Malaysia			Indonesia-Singapura			Indonesia-Filipina			Indonesia-Thailand			Krisis
	Sync	LN(T)	F	Sync	LN(T)	F	Sync	LN(T)	F	Sync	LN(T)	F	
1970	-2.7217	16.87422	0.107136	NA	NA	NA	-3.05521	15.09644	-0.04466	-6.09078	17.30716	0.107136	0
1971	-4.99678	16.76415	0.234897	NA	NA	NA	-6.36637	15.76142	-0.04466	-4.52458	16.98855	0.234897	0
1972	-7.74657	17.10689	0.362659	NA	NA	NA	-9.38023	15.94374	-0.04466	-6.93556	18.06229	0.362659	0
1973	-4.77401	17.22864	0.618183	NA	NA	NA	-4.26694	17.16892	-0.04466	-3.79877	18.7928	0.490421	0
1974	-1.57791	17.58412	0.745945	NA	NA	NA	-2.54957	16.73867	-0.04466	-1.2311	19.02663	0.490421	0
1975	-2.54862	17.76598	0.873706	NA	NA	NA	-2.3091	17.48928	-0.04466	-1.09559	18.22467	0.490421	0
1976	-5.41393	17.64936	1.001468	NA	NA	NA	-9.91351	17.02393	-0.04466	-10.0285	19.54347	0.490421	0
1977	-1.00342	17.44676	0.594154	NA	NA	NA	-3.80382	17.62217	-0.57973	-2.52127	19.85515	-0.04466	0
1978	-0.36567	17.45835	1.12923	NA	NA	NA	-1.62409	19.01312	-0.04466	-4.12495	18.73491	0.490421	0
1979	-4.57876	17.55651	1.12923	NA	NA	NA	-2.19466	18.33752	-0.04466	-5.98194	19.7512	0.490421	0
1980	-0.65986	18.04497	1.12923	NA	NA	NA	-0.00451	19.18298	-0.04466	-0.63051	19.97503	0.490421	0
1981	-1.2463	18.57529	1.12923	NA	NA	NA	-2.40752	19.54314	-0.04466	-4.89159	19.41623	0.490421	0
1982	-2.91312	18.15906	2.333585	NA	NA	NA	-4.89323	18.51563	0.557522	-5.30088	19.72479	1.092598	0
1983	-4.86022	18.5782	2.333585	NA	NA	NA	-4.66403	17.91451	0.557522	-3.16152	19.29406	1.092598	0
1984	-8.85316	19.11951	2.333585	NA	NA	NA	-1.33259	16.62491	0.557522	-2.44714	18.35646	1.092598	0
1985	-5.68519	18.69573	2.333585	NA	NA	NA	-5.07934	17.41392	1.092598	-1.35811	18.27589	1.092598	0
1986	-0.89509	18.49709	2.333585	NA	NA	NA	-1.5643	17.83836	0.557522	-2.44654	18.56391	1.092598	0
1987	-2.13797	19.50025	2.333585	NA	NA	NA	-0.08967	18.67996	0.557522	-5.48122	18.57786	1.092598	0
1988	-4.46304	20.14284	2.333585	NA	NA	NA	-3.04653	17.74301	0.557522	-2.75399	18.95659	1.092598	0
1989	-1.4532	20.53641	2.333585	NA	NA	NA	-0.22728	18.55188	0.557522	-2.68625	19.59347	1.092598	0
1990	-4.68176	20.34417	2.333585	NA	NA	NA	-5.87677	18.61855	0.557522	-5.12619	19.54866	1.092598	0
1991	-1.63744	20.72835	2.333585	NA	NA	NA	-3.69123	18.2449	0.557522	-1.71467	19.87342	1.092598	0

Tahun	Indonesia-Malaysia			Indonesia-Singapura			Indonesia-Filipina			Indonesia-Thailand			Krisis
	Sync	LN(T)	F	Sync	LN(T)	F	Sync	LN(T)	F	Sync	LN(T)	F	
1992	-1.273	20.73498	2.333585	NA	NA	NA	-11.9809	18.20426	1.1597	-2.61433	20.15269	1.092598	0
1993	-4.27366	20.80614	1.731408	NA	NA	NA	-4.53046	18.38402	1.1597	-3.40819	19.81747	1.092598	0
1994	-1.14706	21.08035	1.731408	NA	NA	NA	-7.31049	18.7899	1.1597	-2.52631	20.59782	1.092598	0
1995	-4.90045	21.38583	1.731408	NA	NA	NA	-1.84397	19.34787	1.694776	-4.93424	21.20647	1.092598	0
1996	-3.89122	21.6144	1.475884	NA	NA	NA	-1.58634	19.34787	1.031938	-2.9146	21.24946	0.964837	0
1997	-2.55421	21.61925	1.22036	NA	NA	NA	-2.22332	19.87529	0.904176	-2.7737	21.7364	0.837075	0
1998	-0.16338	21.42572	0.613968	NA	NA	NA	-2.95389	19.2199	0.425546	-0.80889	21.4021	0.358444	0
1999	-0.86709	21.62446	0.709313	NA	NA	NA	-3.28515	19.32417	0.648653	-2.27875	21.38594	0.581551	1
2000	-0.24587	21.95143	0.453789	NA	NA	NA	-1.33041	19.72049	0.520891	-0.0604	21.70769	0.453789	1
2001	-1.01092	21.86309	0.453789	NA	NA	NA	-1.7798	19.39592	0.520891	-0.16963	21.7281	0.453789	1
2002	-1.72646	22.00488	0.453789	NA	NA	NA	-1.22775	19.8302	0.520891	-1.29845	21.93421	0.453789	1
2003	-0.06299	22.17214	0.453789	-4.57678	24.17495	1.694776	-0.38897	20.1976	0.520891	-0.55675	22.23774	0.453789	1
2004	-0.57544	22.53905	0.453789	-0.67229	24.36189	1.694776	-1.569	20.4375	0.520891	-2.06655	22.58188	0.453789	1
2005	-0.43835	22.61708	0.453789	-3.96685	24.5124	1.694776	-2.4578	20.67475	0.520891	-5.28721	22.79081	0.453789	1
2006	-3.14445	22.82104	0.453789	-7.31131	24.63133	1.694776	-12.0645	20.40548	0.520891	-12.9461	22.62117	0.453789	1
2007	-0.42082	23.05954	0.453789	-5.99847	24.79968	1.694776	-10.2592	20.77105	0.520891	-1.71151	22.98894	-0.08129	1
2008	-1.40769	23.24789	1.055967	-0.8138	24.99287	1.694776	-2.79964	20.91009	0.520891	-4.246	23.25045	0.453789	1
2009	-7.06459	23.00712	0.453789	-8.83156	24.67914	1.694776	-0.08539	20.45232	0.520891	-0.2656	22.95419	-0.08129	1
2010	-4.0173	23.14199	-0.08129	-4.12762	24.91567	1.694776	-0.18899	20.61617	-0.08129	-1.84878	23.41075	-0.08129	1
2011	-0.11662	23.33514	-0.68346	-0.34028	25.1737	1.092598	-1.08976	20.91531	-0.68346	-0.75931	23.71614	-0.68346	1
2012	-0.74443	23.60818	-0.68346	-5.03331	25.18529	1.092598	-1.23181	21.24167	-0.68346	-1.15041	23.82713	-0.68346	1
2013	-2.113	23.76776	-0.68346	-3.12226	25.1229	1.092598	-2.28842	21.19675	-0.68346	-2.7634	23.78683	-0.68346	1
2014	-0.44433	23.69035	-0.14839	-1.83773	25.06864	1.092598	-0.56553	21.14001	-0.08129	-0.97179	23.65811	-0.68346	1

Tahun	Indonesia-Malaysia			Indonesia-Singapura			Indonesia-Filipina			Indonesia-Thailand			Krisis
	Sync	LN(T)	F	Sync	LN(T)	F	Sync	LN(T)	F	Sync	LN(T)	F	
2015	-0.13013	23.42765	-0.14839	-0.82708	24.78047	1.092598	-0.3588	20.95163	-0.08129	-0.37673	23.45823	-0.68346	1
2016	-1.1357	23.31374	-0.14839	-6.82257	24.66893	1.092598	-1.84349	20.8925	-0.08129	-3.37813	23.5115	-0.68346	1
2017	-4.96047	23.50769	-0.14839	-0.36243	24.47856	1.092598	-1.51133	21.06271	-0.08129	-1.03148	23.59421	-0.68346	1
2018	-7.34339	23.48027	-0.14839	-12.8097	24.91347	1.092598	-4.29119	21.27277	-0.08129	-6.60903	23.73506	-0.68346	1
2019	-2.07686	23.42347	-0.14839	-8.1337	24.72608	1.092598	-3.4222	21.2289	-0.08129	-6.61919	23.6231	-0.68346	1
2020	-0.31927	23.36728	-0.14839	-1.73653	24.24891	1.092598	-3.17845	20.68465	-0.08129	-6.5424	23.43592	-0.68346	1

3. Sinkronisasi Siklus Bisnis, Keterbukaan Perdagangan, dan Keterbukaan Keuangan (MYS-SGP, MYS-PHP, MYS-THA, SGP-PHP)

Tahun	Malaysia-Singapura			Malaysia-Filipina			Malaysia-Thailand			Singapura-Filipina			Krisis
	Sync	LN(T)	F	Sync	LN(T)	F	Sync	LN(T)	F	Sync	LN(T)	F	
1970	-0.59412	20.33666	-0.14839	-0.33351	13.30468	-0.30018	-3.36907	18.19604	-0.14839	-0.26062	16.62491	-0.30018	0
1971	-1.5688	20.50347	-0.14839	-1.36959	14.69098	-0.42794	-0.4722	18.06885	-0.14839	-0.19921	17.20328	-0.42794	0
1972	-11.1641	20.62726	-0.14839	-1.63366	14.28551	-0.5557	-0.81101	18.49077	-0.14839	-9.53045	17.41008	-0.5557	0
1973	-8.61202	21.00486	-0.02063	-0.50707	16.23142	-0.5557	-0.97524	19.05482	-0.02063	-9.11909	17.96497	-0.68346	0
1974	-2.21314	21.37973	0.107136	-0.97166	16.05622	-0.42794	-2.80901	19.29122	0.107136	-3.18481	18.53722	-0.68346	0
1975	-6.28871	21.33777	0.234897	-4.85772	16.07727	-0.30018	-1.45303	19.14348	0.234897	-1.43099	18.67594	-0.68346	0
1976	-3.10235	21.42111	0.362659	-4.49958	16.0668	-0.17242	-4.61456	19.3447	0.362659	-1.39723	18.77682	-0.68346	0
1977	-3.39557	21.5839	0.490421	-2.8004	17.90952	-0.04466	-1.51785	19.72761	0.490421	-0.59517	18.69162	-0.68346	0
1978	-0.98908	21.7589	1.22036	-1.98976	18.1057	-0.04466	-3.75928	19.86165	0.490421	-1.00068	19.23268	0.046475	0
1979	-5.57663	22.12869	1.348122	-2.3841	18.55346	-0.04466	-10.5607	19.96244	0.490421	-3.19253	19.37017	0.174237	0
1980	-1.54801	22.48405	1.475884	-0.66438	19.05609	-0.04466	-0.02935	20.18668	0.490421	-0.88364	19.22313	0.301999	0
1981	-5.02557	22.60097	1.603646	-1.16122	19.15372	-0.04466	-3.64529	20.27667	0.490421	-6.18679	19.44529	0.429761	0

Tahun	Malaysia-Singapura			Malaysia-Filipina			Malaysia-Thailand			Singapura-Filipina			Krisis
	Sync	LN(T)	F	Sync	LN(T)	F	Sync	LN(T)	F	Sync	LN(T)	F	
1982	-1.1026	22.71633	2.333585	-1.98011	19.68915	0.557522	-2.38776	20.38275	1.092598	-0.87752	20.28097	0.557522	0
1983	-5.38168	22.76276	2.333585	-9.52425	19.59687	0.557522	-8.02175	20.1622	1.092598	-4.14257	20.02928	0.557522	0
1984	-7.30693	22.77789	2.333585	-7.52056	19.69039	0.557522	-6.40602	20.36896	1.092598	-0.21363	19.54314	0.557522	0
1985	-3.22595	22.68034	2.333585	-0.60586	19.6661	1.092598	-4.32708	20.38018	1.092598	-2.6201	19.78866	1.092598	0
1986	-2.02375	22.6185	2.333585	-0.66921	19.08316	0.557522	-1.55145	20.4523	1.092598	-1.35454	19.90587	0.557522	0
1987	-0.91832	22.82759	2.333585	-2.22764	19.28787	0.557522	-7.61919	20.46853	1.092598	-1.30931	19.89012	0.557522	0
1988	-2.46632	23.09022	2.333585	-1.41651	19.26646	0.557522	-1.70905	20.66761	1.092598	-1.04981	19.98775	0.557522	0
1989	-1.20264	23.22626	2.333585	-1.22592	19.11082	0.557522	-1.23305	20.8803	1.092598	-2.42856	19.94434	0.557522	0
1990	-2.71507	23.34402	2.333585	-1.19501	19.35127	0.557522	-0.44443	20.86301	1.092598	-3.91008	20.03932	0.557522	0
1991	-1.14341	23.59116	2.333585	-2.05379	19.32449	0.557522	-0.07722	21.03681	1.092598	-3.1972	20.444	0.557522	0
1992	-1.27177	23.48728	2.333585	-10.7079	19.35952	1.1597	-1.34133	21.24389	1.092598	-9.43609	21.0696	1.1597	0
1993	-0.6282	23.76751	1.731408	-8.80411	19.58321	0.557522	-7.68185	21.45644	0.490421	-9.43231	21.41049	1.1597	0
1994	-0.30012	24.36239	1.731408	-8.45755	19.90465	0.557522	-1.37926	21.928	0.490421	-8.75767	21.61854	1.1597	0
1995	-5.50356	24.53724	1.731408	-3.05649	20.25831	1.092598	-0.03378	21.85708	0.490421	-8.56005	21.89915	1.694776	0
1996	-4.27981	24.53044	1.603646	-2.30488	21.04099	0.429761	-0.97662	22.11677	0.362659	-1.97493	22.02196	1.1597	0
1997	-0.22702	24.50192	0.940808	-0.33089	20.97027	0.301999	-0.21949	22.32584	0.234897	-0.55791	22.3193	0.624624	0
1998	-0.28649	24.23338	0.813046	-3.11727	21.54886	0.174237	-0.97227	21.99295	0.107136	-2.83078	22.5556	0.624624	0
1999	-3.66949	24.36055	1.22036	-4.15224	21.80798	0.046475	-3.14584	22.16971	-0.02063	-0.48275	22.25259	1.1597	1
2000	-0.61154	24.63695	1.092598	-1.57629	21.73658	-0.08129	-0.18548	22.45075	-0.14839	-0.96475	22.32134	1.1597	1
2001	-3.81326	24.46673	1.092598	-0.76888	21.52226	-0.08129	-0.8413	22.41764	-0.14839	-3.04438	22.30474	1.1597	1
2002	-0.31777	24.49865	1.092598	-2.95422	21.91877	-0.08129	-0.42801	22.45842	-0.14839	-2.63644	22.38359	1.1597	1
2003	-4.51378	24.54287	1.092598	-0.32597	22.31762	-0.08129	-0.49375	22.77394	-0.14839	-4.18781	22.41185	1.1597	1
2004	-0.09686	24.72258	1.092598	-0.99357	22.14388	-0.08129	-2.64199	23.08319	-0.14839	-0.89671	22.65447	1.1597	1

Tahun	Malaysia-Singapura			Malaysia-Filipina			Malaysia-Thailand			Singapura-Filipina			Krisis
	Sync	LN(T)	F	Sync	LN(T)	F	Sync	LN(T)	F	Sync	LN(T)	F	
2005	-3.5285	24.83102	1.092598	-2.01945	22.31542	-0.08129	-5.72556	23.17094	-0.14839	-1.50905	22.56022	1.1597	1
2006	-4.16686	24.98699	1.092598	-8.92008	22.37788	-0.08129	-9.8017	23.31192	-0.14839	-4.75321	22.37448	1.1597	1
2007	-5.57764	25.07035	1.092598	-9.83839	22.33538	-0.08129	-1.29068	23.47312	-0.68346	-4.26075	22.37817	1.1597	1
2008	-0.59388	25.12783	1.694776	-1.39195	22.08815	0.520891	-2.83832	23.69686	0.453789	-1.98583	23.40855	1.1597	1
2009	-1.76697	24.84948	1.092598	-6.9792	21.72251	-0.08129	-7.33019	23.44984	-0.68346	-8.74617	22.86984	1.1597	1
2010	-0.11031	25.15201	0.557522	-4.20629	21.75038	-1.21854	-2.16853	23.77437	-1.21854	-4.3166	22.99756	0.557522	1
2011	-0.22366	25.32882	0.557522	-0.97315	21.5108	-1.21854	-0.6427	23.9232	-1.21854	-0.74949	22.80627	0.557522	1
2012	-4.28887	25.33703	0.557522	-0.48738	21.43435	-1.21854	-1.89484	23.93017	-1.21854	-3.80149	22.9102	0.557522	1
2013	-1.00926	25.33057	0.557522	-0.17542	21.67621	-1.21854	-0.65041	23.96607	-1.21854	-0.83383	22.71101	0.557522	1
2014	-1.3934	25.30906	1.092598	-0.1212	21.56571	-0.08129	-0.52746	23.95255	-0.68346	-1.2722	22.72491	1.1597	1
2015	-0.69695	25.04979	1.092598	-0.48894	21.59764	-0.08129	-0.2466	23.72174	-0.68346	-1.18589	22.76925	1.1597	1
2016	-5.68687	24.96318	1.092598	-0.70779	21.58991	-0.08129	-2.24244	23.67443	-0.68346	-4.97908	22.85966	1.1597	1
2017	-4.59804	25.09534	1.092598	-3.44913	21.88292	-0.08129	-3.92898	23.7508	-0.68346	-1.1489	22.75975	1.1597	1
2018	-5.46628	25.22074	1.092598	-3.0522	22.07373	-0.08129	-0.73437	23.86339	-0.68346	-8.51848	22.7094	1.1597	1
2019	-6.05683	23.75188	1.092598	-1.34533	22.01814	-0.08129	-4.54232	23.75188	-0.68346	-4.7115	22.75975	1.1597	1
2020	-2.0558	23.57612	1.092598	-2.85918	21.99104	-0.08129	-6.22312	23.57612	-0.68346	-4.91498	22.7094	1.1597	1

4. Sinkronisasi Siklus Bisnis, Keterbukaan Perdagangan, dan Keterbukaan Keuangan (SGP-PHP, PHP-THA)

Tahun	Singapura-Filipina			Filipina-Thailand			Krisis
	Sync	LN(T)	F	Sync	LN(T)	F	
1970	-0.26062	16.62491	-0.30018	-3.03557	14.22098	-0.30018	0
1971	-0.19921	17.20328	-0.42794	-1.84179	17.51434	-0.42794	0
1972	-9.53045	17.41008	-0.5557	-2.44467	17.83657	-0.5557	0
1973	-9.11909	17.96497	-0.68346	-0.46816	17.10242	-0.68346	0
1974	-3.18481	18.53722	-0.68346	-3.78067	17.61906	-0.68346	0
1975	-1.43099	18.67594	-0.68346	-3.40469	18.06714	-0.68346	0
1976	-1.39723	18.77682	-0.68346	-0.11498	17.89745	-0.68346	0
1977	-0.59517	18.69162	-0.68346	-1.28255	17.01337	-0.68346	0
1978	-1.00068	19.23268	0.046475	-5.74904	17.52762	-0.68346	0
1979	-3.19253	19.37017	0.174237	-8.1766	16.96225	-0.68346	0
1980	-0.88364	19.22313	0.301999	-0.63503	17.66353	-0.68346	0
1981	-6.18679	19.44529	0.429761	-2.48407	17.52026	-0.68346	0
1982	-0.87752	20.28097	0.557522	-0.40765	18.03266	-0.68346	0
1983	-4.14257	20.02928	0.557522	-1.50251	18.72153	-0.68346	0
1984	-0.21363	19.54314	0.557522	-1.11455	17.64328	-0.68346	0
1985	-2.6201	19.78866	1.092598	-3.72123	18.48008	-0.14839	0
1986	-1.35454	19.90587	0.557522	-0.88224	17.87492	-0.68346	0
1987	-1.30931	19.89012	0.557522	-5.39155	18.77317	-0.68346	0
1988	-1.04981	19.98775	0.557522	-0.29254	18.59009	-0.68346	0

Tahun	Singapura-Filipina			Filipina-Thailand			Krisis
	Sync	LN(T)	F	Sync	LN(T)	F	
1989	-2.42856	19.94434	0.557522	-2.45897	19.06642	-0.68346	0
1990	-3.91008	20.03932	0.557522	-0.75058	19.62839	-0.68346	0
1991	-3.1972	20.444	0.557522	-1.97656	19.16281	-0.68346	0
1992	-9.43609	21.0696	1.1597	-9.36653	19.54995	-0.08129	0
1993	-9.43231	21.41049	1.1597	-1.12226	19.79652	-0.08129	0
1994	-8.75767	21.61854	1.1597	-9.8368	19.91735	-0.08129	0
1995	-8.56005	21.89915	1.694776	-3.09027	20.5353	0.453789	0
1996	-1.97493	22.02196	1.1597	-1.32826	20.95609	-0.08129	0
1997	-0.55791	22.3193	0.624624	-0.55037	21.05706	-0.08129	0
1998	-2.83078	22.5556	0.624624	-2.145	21.15099	-0.08129	0
1999	-0.48275	22.25259	1.1597	-1.0064	21.34176	-0.08129	1
2000	-0.96475	22.32134	1.1597	-1.39081	21.49515	-0.08129	1
2001	-3.04438	22.30474	1.1597	-1.61018	21.56132	-0.08129	1
2002	-2.63644	22.38359	1.1597	-2.52621	21.65878	-0.08129	1
2003	-4.18781	22.41185	1.1597	-0.16778	21.90021	-0.08129	1
2004	-0.89671	22.65447	1.1597	-3.63555	22.01978	-0.08129	1
2005	-1.50905	22.56022	1.1597	-7.74501	22.13024	-0.08129	1
2006	-4.75321	22.37448	1.1597	-0.88162	22.36719	-0.08129	1
2007	-4.26075	22.37817	1.1597	-8.54771	22.51894	-0.61636	1
2008	-1.98583	23.40855	1.1597	-1.44637	22.66136	-0.08129	1
2009	-8.74617	22.86984	1.1597	-0.35099	22.51951	-0.61636	1
2010	-4.3166	22.99756	0.557522	-2.03776	23.00313	-1.21854	1
2011	-0.74949	22.80627	0.557522	-0.33045	22.94038	-1.21854	1

Tahun	Singapura-Filipina			Filipina-Thailand			Krisis
	Sync	LN(T)	F	Sync	LN(T)	F	
2012	-3.80149	22.9102	0.557522	-2.38222	22.9913	-1.21854	1
2013	-0.83383	22.71101	0.557522	-0.47498	23.0167	-1.21854	1
2014	-1.2722	22.72491	1.1597	-0.40626	23.17485	-0.61636	1
2015	-1.18589	22.76925	1.1597	-0.73553	23.19146	-0.61636	1
2016	-4.97908	22.85966	1.1597	-1.53465	23.26562	-0.61636	1
2017	-1.1489	22.75975	1.1597	-0.47985	23.35269	-0.61636	1
2018	-8.51848	22.7094	1.1597	-2.31783	23.4761	-0.61636	1
2019	-4.7115	22.75975	1.1597	-3.19699	23.3481	-0.61636	1
2020	-4.91498	22.7094	1.1597	-3.36395	23.02781	-0.61636	1

Blanchard & Quah Decomposition

1. Indonesia

Structural VAR Estimates

Date: 07/17/22 Time: 06:20

Sample (adjusted): 1965 2020

Included observations: 56 after adjustments

Estimation method: Maximum likelihood via Newton-Raphson (analytic derivatives)

Convergence achieved after 14 iterations

Structural VAR is just-identified

Model: $e = \Phi u$ where $E[uu'] = I$

F =

0	C(2)
C(1)	C(3)

	Coefficient	Std. Error	z-Statistic	Prob.
C(1)	0.206801	0.019541	10.58300	0.0000
C(2)	-0.046740	0.004417	-10.58300	0.0000
C(3)	-0.033132	0.027812	-1.191300	0.2335

Log likelihood 66.51275

Estimated S matrix:

0.003369	-0.032983
0.528557	0.124509

Estimated F matrix:

0.000000	-0.046740
0.206801	-0.033132

2. Malaysia

Structural VAR Estimates

Date: 07/17/22 Time: 06:40

Sample (adjusted): 1963 2020

Included observations: 58 after adjustments

Estimation method: Least squares via Gauss-Newton (analytic derivatives)

Convergence achieved after 10 iterations

Structural VAR is just-identified

Model: $e = \Phi u$ where $E[uu'] = I$

F =

0	C(2)
C(1)	C(3)

	Coefficient	Std. Error	z-Statistic	Prob.
C(1)	0.042646	0.003960	10.77033	0.0000
C(2)	0.043967	0.004082	10.77033	0.0000
C(3)	0.021694	0.005951	3.645404	0.0003

Objective value 207.4639

Estimated S matrix:

0.003980	0.035974
0.046929	0.012859

Estimated F matrix:

0.000000	0.043967
0.042646	0.021694

3. Filipina

Structural VAR Estimates

Date: 02/11/22 Time: 18:53

Sample (adjusted): 1962 2020

Included observations: 59 after adjustments

Estimation method: Least squares via Gauss-Newton (analytic derivatives)

Convergence achieved after 6 iterations

Structural VAR is just-identified

Model: $e = \Phi \cdot F_u$ where $E[uu'] = I$

F =

0	C(2)
C(1)	C(3)

	Coefficient	Std. Error	z-Statistic	Prob.
C(1)	0.102842	0.009467	10.86278	0.0000
C(2)	-0.047139	0.004339	-10.86278	0.0000
C(3)	0.039757	0.013880	2.864329	0.0042

Objective value 207.9898

Estimated S matrix:

0.013054	-0.028057
0.041767	0.042295

Estimated F matrix:

0.000000	-0.047139
0.102842	0.039757

4. Singapura

Structural VAR Estimates

Date: 02/11/22 Time: 18:47

Sample (adjusted): 1962 2020

Included observations: 59 after adjustments

Estimation method: Least squares via Gauss-Newton (analytic derivatives)

Convergence achieved after 6 iterations

Structural VAR is just-identified

Model: $e = \Phi \cdot F_u$ where $E[uu'] = I$

F =

0	C(2)
C(1)	C(3)

	Coefficient	Std. Error	z-Statistic	Prob.
C(1)	0.043748	0.004027	10.86278	0.0000
C(2)	0.066072	0.006082	10.86278	0.0000
C(3)	0.042839	0.006928	6.183772	0.0000

Objective value 238.6684

Estimated S matrix:

0.001849	0.040144
0.025953	0.009129

Estimated F matrix:

0.000000	0.066072
0.043748	0.042839

5. Thailand

Structural VAR Estimates

Date: 05/10/22 Time: 13:19

Sample (adjusted): 1962 2020

Included observations: 59 after adjustments

Estimation method: Least squares via Gauss-Newton (analytic derivatives)

Convergence achieved after 6 iterations

Structural VAR is just-identified

Model: $e = \Phi \cdot F_u$ where $E[uu'] = I$

F =

0	C(2)
C(1)	C(3)

	Coefficient	Std. Error	z-Statistic	Prob.
C(1)	-0.067045	0.006172	-10.86278	0.0000
C(2)	0.080164	0.007380	10.86278	0.0000
C(3)	0.043917	0.009619	4.565462	0.0000
Objective value	232.8829			
Estimated S matrix:				
	0.003301	0.032836		
	-0.034155	0.002736		
Estimated F matrix:				
	0.000000	0.080164		
	-0.067045	0.043917		

Indonesia-Malaysia

VAR Estimates

Vector Autoregression Estimates

Date: 09/19/22 Time: 16:10

Sample (adjusted): 1972 2020

Included observations: 49 after adjustments

Standard errors in () & t-statistics in []

	IND_MAS	D(LT_IND_MAS)	D(F_IND_MAS)
IND_MAS(-1)	0.322698 (0.12930) [2.49577]	0.011652 (0.01781) [0.65418]	0.022118 (0.01942) [1.13874]
D(LT_IND_MAS(-1))	-1.668447 (1.07420) [-1.55320]	0.055808 (0.14798) [0.37714]	0.201294 (0.16137) [1.24741]
D(F_IND_MAS(-1))	-2.630166 (0.96192) [-2.73429]	-0.021920 (0.13251) [-0.16543]	0.060973 (0.14450) [0.42196]
C	-1.502435 (0.47726) [-3.14806]	0.158274 (0.06574) [2.40739]	0.024607 (0.07169) [0.34322]
R-squared	0.248504	0.013214	0.063367
Adj. R-squared	0.198404	-0.052571	0.000924

Sum sq. resids	192.0044	3.643589	4.332895
S.E. equation	2.065615	0.284550	0.310301
F-statistic	4.960187	0.200871	1.014806
Log likelihood	-102.9876	-5.856133	-10.10117
Akaike AIC	4.366840	0.402291	0.575558
Schwarz SC	4.521275	0.556725	0.729992
Mean dependent	-2.572743	0.134758	-0.007822
S.D. dependent	2.307128	0.277353	0.310444

Determinant resid covariance (dof adj.)	0.032741
Determinant resid covariance	0.025360
Log likelihood	-118.5565
Akaike information criterion	5.328836
Schwarz criterion	5.792139
Number of coefficients	12

VAR Stability

Roots of Characteristic Polynomial
 Endogenous variables: IND_MAS
 D(LT_IND_MAS) D(F_IND_MAS)
 Exogenous variables: C
 Lag specification: 1 1
 Date: 09/19/22 Time: 16:21

Root	Modulus
0.212947 - 0.268296i	0.342533
0.212947 + 0.268296i	0.342533
0.013585	0.013585

No root lies outside the unit circle.
 VAR satisfies the stability condition.

VAR Granger Causality

VAR Granger Causality/Block Exogeneity Wald Tests
 Date: 09/19/22 Time: 16:21
 Sample: 1970 2020
 Included observations: 49

Dependent variable: IND_MAS

Excluded	Chi-sq	df	Prob.
D(LT_IND_MAS)	2.412419	1	0.1204
D(F_IND_MAS)	7.476345	1	0.0063
All	9.345920	2	0.0093

Indonesia-Singapura

VAR Estimates

Vector Autoregression Estimates

Date: 09/19/22 Time: 16:24

Sample (adjusted): 2005 2020

Included observations: 16 after adjustments

Standard errors in () & t-statistics in []

	IND_SIN	D(LT_IND_SIN)	D(F_IND_SIN)
IND_SIN(-1)	-0.217025 (0.29699) [-0.73075]	0.012300 (0.02047) [0.60089]	-0.004656 (0.01208) [-0.38546]
D(LT_IND_SIN(-1))	-1.575713 (5.00655) [-0.31473]	0.081118 (0.34506) [0.23508]	-0.218021 (0.20363) [-1.07070]
D(F_IND_SIN(-1))	-1.263033 (7.48903) [-0.16865]	0.088355 (0.51615) [0.17118]	-0.186808 (0.30459) [-0.61331]
C	-5.461153 (1.71601) [-3.18247]	0.048058 (0.11827) [0.40634]	-0.057821 (0.06979) [-0.82846]
R-squared	0.046088	0.030551	0.093058
Adj. R-squared	-0.192390	-0.211811	-0.133677
Sum sq. resids	186.3857	0.885363	0.308319
S.E. equation	3.941084	0.271625	0.160291
F-statistic	0.193258	0.126054	0.410427
Log likelihood	-42.34485	0.451758	8.890667
Akaike AIC	5.793107	0.443530	-0.611333
Schwarz SC	5.986254	0.636677	-0.418186
Mean dependent	-4.504697	-0.007061	-0.037636
S.D. dependent	3.609163	0.246747	0.150544
Determinant resid covariance (dof adj.)		0.020456	
Determinant resid covariance		0.008630	
Log likelihood		-30.08895	
Akaike information criterion		5.261119	
Schwarz criterion		5.840560	
Number of coefficients		12	

VAR Stability

Roots of Characteristic Polynomial

Endogenous variables: IND_SIN

D(LT_IND_SIN) D(F_IND_SIN)

Exogenous variables: C

Lag specification: 1 1

Date: 09/19/22 Time: 16:25

Root	Modulus
-0.146330 - 0.101680i	0.178189
-0.146330 + 0.101680i	0.178189
-0.030055	0.030055

No root lies outside the unit circle.

VAR satisfies the stability condition.

VAR Granger Causality

VAR Granger Causality/Block Exogeneity Wald Tests

Date: 09/19/22 Time: 16:26

Sample: 1970 2020

Included observations: 16

Dependent variable: IND_SIN

Excluded	Chi-sq	df	Prob.
D(LT_IND_SIN)	0.099055	1	0.7530
D(F_IND_SIN)	0.028443	1	0.8661
All	0.103938	2	0.9494

Indonesia – Filipina

VAR Estimates

Vector Autoregression Estimates

Date: 09/19/22 Time: 16:56

Sample (adjusted): 1974 2020

Included observations: 47 after adjustments

Standard errors in () & t-statistics in []

	IND_PHI	D(LT_IND_PHI)	D(F_IND_PHI)
IND_PHI(-1)	0.329201 (0.16119) [2.04235]	-0.017551 (0.03082) [-0.56956]	0.001231 (0.01762) [0.06985]
IND_PHI(-2)	0.064282 (0.16605) [0.38713]	-0.009731 (0.03174) [-0.30655]	-0.021905 (0.01815) [-1.20715]
IND_PHI(-3)	-0.307660 (0.15895) [-1.93561]	-0.010653 (0.03039) [-0.35056]	0.016180 (0.01737) [0.93143]
D(LT_IND_PHI(-1))	-0.168729 (0.86581) [-0.19488]	-0.200326 (0.16552) [-1.21025]	-0.070897 (0.09462) [-0.74928]
D(LT_IND_PHI(-2))	-0.402998 (0.88210) [-0.45686]	-0.058243 (0.16864) [-0.34537]	0.061078 (0.09640) [0.63359]
D(LT_IND_PHI(-3))	-0.973474 (0.78649) [-1.23774]	-0.036180 (0.15036) [-0.24062]	-0.003703 (0.08595) [-0.04308]
D(F_IND_PHI(-1))	-0.212542 (1.53836) [-0.13816]	-0.603849 (0.29410) [-2.05321]	-0.111407 (0.16812) [-0.66267]
D(F_IND_PHI(-2))	-0.321042 (1.61883) [-0.19832]	0.104086 (0.30948) [0.33632]	-0.025326 (0.17691) [-0.14316]

D(F_IND_PHI(-3))	-2.046059 (1.59991) [-1.27886]	-0.055885 (0.30587) [-0.18271]	0.058764 (0.17485) [0.33609]
C	-2.673409 (0.81303) [-3.28821]	-0.012582 (0.15543) [-0.08095]	-0.013537 (0.08885) [-0.15235]
R-squared	0.233456	0.173468	0.083035
Adj. R-squared	0.047000	-0.027580	-0.140011
Sum sq. resids	306.7591	11.21175	3.663693
S.E. equation	2.879372	0.550473	0.314672
F-statistic	1.252067	0.862820	0.372278
Log likelihood	-110.7741	-33.01026	-6.725729
Akaike AIC	5.139324	1.830224	0.711733
Schwarz SC	5.532972	2.223872	1.105382
Mean dependent	-3.083377	0.074803	-0.000779
S.D. dependent	2.949520	0.543035	0.294716
Determinant resid covariance (dof adj.)		0.224409	
Determinant resid covariance		0.109485	
Log likelihood		-148.0890	
Akaike information criterion		7.578255	
Schwarz criterion		8.759200	
Number of coefficients		30	

VAR Stability

Roots of Characteristic Polynomial

Endogenous variables: IND_PHI

D(LT_IND_PHI) D(F_IND_PHI)

Exogenous variables: C

Lag specification: 1 3

Date: 09/19/22 Time: 16:57

Root	Modulus
-0.625809 - 0.206514i	0.659003
-0.625809 + 0.206514i	0.659003
0.388618 - 0.519442i	0.648724
0.388618 + 0.519442i	0.648724
-0.006211 - 0.413675i	0.413722
-0.006211 + 0.413675i	0.413722
0.289748 - 0.198008i	0.350943
0.289748 + 0.198008i	0.350943
-0.075224	0.075224

No root lies outside the unit circle.

VAR satisfies the stability condition.

VAR Granger Causality

VAR Granger Causality/Block Exogeneity Wald Tests

Date: 09/19/22 Time: 16:58

Sample: 1970 2020

Included observations: 47

Dependent variable: IND_PHI

Excluded	Chi-sq	df	Prob.
D(LT_IND_PHI)	1.618804	3	0.6551

D(F_IND_PHI)	1.647641	3	0.6486
All	3.291781	6	0.7714

Indonesia-Thailand

VAR Estimates

Vector Autoregression Estimates

Date: 09/19/22 Time: 17:03

Sample (adjusted): 1973 2020

Included observations: 48 after adjustments

Standard errors in () & t-statistics in []

	IND_THA	D(LT_IND_THA)	D(F_IND_THA)
IND_THA(-1)	0.169459 (0.16682) [1.01583]	-0.022387 (0.02801) [-0.79915]	0.023401 (0.01239) [1.88867]
IND_THA(-2)	0.049448 (0.17245) [0.28674]	0.025183 (0.02896) [0.86961]	-0.029045 (0.01281) [-2.26761]
D(LT_IND_THA(-1))	0.971347 (0.86146) [1.12755]	-0.167847 (0.14466) [-1.16025]	-0.110202 (0.06398) [-1.72232]
D(LT_IND_THA(-2))	-0.744935 (0.88336) [-0.84330]	-0.283541 (0.14834) [-1.91141]	0.020246 (0.06561) [0.30858]
D(F_IND_THA(-1))	-0.352854 (2.02620) [-0.17415]	-0.190687 (0.34026) [-0.56042]	-0.125529 (0.15049) [-0.83411]
D(F_IND_THA(-2))	-0.252585 (1.88750) [-0.13382]	-0.281350 (0.31697) [-0.88764]	0.182045 (0.14019) [1.29853]
C	-2.481790 (0.76999) [-3.22316]	0.172483 (0.12930) [1.33394]	-0.025056 (0.05719) [-0.43811]
R-squared	0.073546	0.162909	0.358137
Adj. R-squared	-0.062033	0.040408	0.264206
Sum sq. resids	288.3278	8.130862	1.590617
S.E. equation	2.651865	0.445324	0.196966
F-statistic	0.542457	1.329862	3.812756
Log likelihood	-111.1386	-25.49623	13.66085
Akaike AIC	4.922441	1.354010	-0.277535
Schwarz SC	5.195324	1.626893	-0.004652
Mean dependent	-3.118722	0.111951	-0.021794
S.D. dependent	2.573252	0.454604	0.229622
Determinant resid covariance (dof adj.)		0.046616	
Determinant resid covariance		0.029051	
Log likelihood		-119.3985	
Akaike information criterion		5.849936	
Schwarz criterion		6.668586	
Number of coefficients		21	

VAR Stability

Roots of Characteristic Polynomial

Endogenous variables: IND_THA

D(LT_IND_THA) D(F_IND_THA)

Exogenous variables: C

Lag specification: 1 2

Date: 09/19/22 Time: 17:05

Root	Modulus
-0.140109 - 0.516932i	0.535583
-0.140109 + 0.516932i	0.535583
0.440983	0.440983
-0.319277	0.319277
0.290011	0.290011
-0.255416	0.255416

No root lies outside the unit circle.

VAR satisfies the stability condition.

Malaysia-Singapura**VAR Estimates**

Vector Autoregression Estimates

Date: 09/19/22 Time: 17:12

Sample (adjusted): 1973 2020

Included observations: 48 after adjustments

Standard errors in () & t-statistics in []

	MAS_SIN	D(LT_MAS_SIN)	D(F_MAS_SIN)
MAS_SIN(-1)	0.136304 (0.13594) [1.00268]	-0.008393 (0.01808) [-0.46420]	-0.021987 (0.01733) [-1.26891]
MAS_SIN(-2)	0.065967 (0.13239) [0.49828]	0.025361 (0.01761) [1.44034]	0.000377 (0.01687) [0.02234]
D(LT_MAS_SIN(-1))	-1.220275 (1.15452) [-1.05696]	0.217947 (0.15355) [1.41939]	0.127034 (0.14716) [0.86326]
D(LT_MAS_SIN(-2))	-1.272907 (1.91843) [-0.66352]	-0.224207 (0.25515) [-0.87873]	-0.021065 (0.24453) [-0.08615]
D(F_MAS_SIN(-1))	-1.699412 (1.22700) [-1.38501]	-0.035669 (0.16319) [-0.21857]	0.094425 (0.15640) [0.60376]
D(F_MAS_SIN(-2))	-0.394485 (1.22608) [-0.32175]	0.062201 (0.16307) [0.38145]	-0.112017 (0.15628) [-0.71678]
C	-1.978024 (0.63033) [-3.13807]	0.118085 (0.08383) [1.40857]	-0.045949 (0.08034) [-0.57190]
R-squared	0.145588	0.099340	0.066255

Adj. R-squared	0.020552	-0.032464	-0.070391
Sum sq. resids	199.9396	3.536655	3.248329
S.E. equation	2.208297	0.293700	0.281474
F-statistic	1.164373	0.753698	0.484865
Log likelihood	-102.3526	-5.516579	-3.475602
Akaike AIC	4.556358	0.521524	0.436483
Schwarz SC	4.829241	0.794408	0.709367
Mean dependent	-2.853699	0.061435	0.025854
S.D. dependent	2.231346	0.289046	0.272061

Determinant resid covariance (dof adj.)	0.032058
Determinant resid covariance	0.019978
Log likelihood	-110.4128
Akaike information criterion	5.475532
Schwarz criterion	6.294183
Number of coefficients	21

VAR Stability

Roots of Characteristic Polynomial
 Endogenous variables: MAS_SIN
 D(LT_MAS_SIN) D(F_MAS_SIN)
 Exogenous variables: C
 Lag specification: 1 2
 Date: 09/19/22 Time: 17:12

Root	Modulus
0.283529 - 0.341560i	0.443906
0.283529 + 0.341560i	0.443906
-0.120595 - 0.311407i	0.333943
-0.120595 + 0.311407i	0.333943
0.061404 - 0.273402i	0.280213
0.061404 + 0.273402i	0.280213

No root lies outside the unit circle.
 VAR satisfies the stability condition.

Malaysia-Filipina

VAR Estimates

Vector Autoregression Estimates
 Date: 09/19/22 Time: 17:17
 Sample (adjusted): 1974 2020
 Included observations: 47 after adjustments
 Standard errors in () & t-statistics in []

	MAS_PHI	D(LT_MAS_PHI)	D(F_MAS_PHI)
MAS_PHI(-1)	0.521568 (0.16459) [3.16886]	-0.016573 (0.02375) [-0.69766]	0.012840 (0.02040) [0.62952]
MAS_PHI(-2)	-0.188241 (0.18437) [-1.02101]	0.013760 (0.02661) [0.51712]	-0.019011 (0.02285) [-0.83212]
MAS_PHI(-3)	-0.046108 (0.16261) [-0.28356]	-0.003390 (0.02347) [-0.14447]	0.056245 (0.02015) [2.79136]

D(LT_MAS_PHI(-1))	0.532713 (0.97043) [0.54895]	-0.008068 (0.14006) [-0.05761]	0.048698 (0.12025) [0.40497]
D(LT_MAS_PHI(-2))	-0.447199 (0.92371) [-0.48413]	0.115103 (0.13331) [0.86340]	0.077075 (0.11446) [0.67336]
D(LT_MAS_PHI(-3))	0.151171 (0.90225) [0.16755]	0.049091 (0.13022) [0.37700]	0.016362 (0.11180) [0.14634]
D(F_MAS_PHI(-1))	-1.639949 (1.19433) [-1.37311]	0.025268 (0.17237) [0.14659]	-0.135365 (0.14800) [-0.91464]
D(F_MAS_PHI(-2))	-0.637014 (1.20135) [-0.53025]	0.001234 (0.17338) [0.00712]	-0.154483 (0.14887) [-1.03772]
D(F_MAS_PHI(-3))	-0.248905 (1.21151) [-0.20545]	0.036868 (0.17485) [0.21085]	0.082751 (0.15013) [0.55121]
C	-2.194993 (0.78047) [-2.81239]	0.078109 (0.11264) [0.69344]	0.136438 (0.09671) [1.41074]
R-squared	0.286506	0.039226	0.248373
Adj. R-squared	0.112954	-0.194476	0.065545
Sum sq. resids	285.0688	5.937768	4.377359
S.E. equation	2.775709	0.400600	0.343958
F-statistic	1.650832	0.167847	1.358508
Log likelihood	-109.0508	-18.07298	-10.90811
Akaike AIC	5.065992	1.194595	0.889707
Schwarz SC	5.459640	1.588243	1.283355
Mean dependent	-3.027935	0.122545	0.010094
S.D. dependent	2.947140	0.366541	0.355817
Determinant resid covariance (dof adj.)		0.142318	
Determinant resid covariance		0.069434	
Log likelihood		-137.3869	
Akaike information criterion		7.122848	
Schwarz criterion		8.303793	
Number of coefficients		30	

VAR Stability

Roots of Characteristic Polynomial

Endogenous variables: MAS_PHI

D(LT_MAS_PHI) D(F_MAS_PHI)

Exogenous variables: C

Lag specification: 1 3

Date: 09/19/22 Time: 17:18

Root	Modulus
0.517800 - 0.450280i	0.686199
0.517800 + 0.450280i	0.686199
-0.229805 - 0.551970i	0.597897
-0.229805 + 0.551970i	0.597897

0.479969	0.479969
-0.315531 - 0.278859i	0.421096
-0.315531 + 0.278859i	0.421096
-0.023382 - 0.249193i	0.250287
-0.023382 + 0.249193i	0.250287

No root lies outside the unit circle.
VAR satisfies the stability condition.

VAR Granger Causality/Block Exogeneity Wald Tests

Date: 09/19/22 Time: 17:18

Sample: 1970 2020

Included observations: 47

Dependent variable: MAS_PHI

Excluded	Chi-sq	df	Prob.
D(LT_MAS_PHI)	0.792674	3	0.8512
D(F_MAS_PHI)	2.060089	3	0.5600
All	3.020625	6	0.8063

Malaysia-Thailand

VAR Estimates

Vector Autoregression Estimates

Date: 09/19/22 Time: 17:25

Sample (adjusted): 1972 2020

Included observations: 49 after adjustments

Standard errors in () & t-statistics in []

	MAS_THA	D(LT_MAS_TH A)	D(F_MAS_THA)
MAS_THA(-1)	0.196823 (0.14521) [1.35548]	-0.008167 (0.00931) [-0.87724]	0.026205 (0.01579) [1.65972]
D(LT_MAS_THA(-1))	1.275871 (2.08220) [0.61275]	0.099880 (0.13349) [0.74819]	0.084495 (0.22641) [0.37320]
D(F_MAS_THA(-1))	-2.933357 (1.30896) [-2.24099]	-0.285705 (0.08392) [-3.40449]	-0.323406 (0.14233) [-2.27224]
C	-2.413966 (0.60750) [-3.97364]	0.076394 (0.03895) [1.96143]	0.045134 (0.06606) [0.68327]
R-squared	0.121891	0.236321	0.132787
Adj. R-squared	0.063351	0.185409	0.074973
Sum sq. resids	317.4650	1.304899	3.753499
S.E. equation	2.656083	0.170287	0.288810
F-statistic	2.082164	4.641768	2.296796
Log likelihood	-115.3074	19.30153	-6.584257
Akaike AIC	4.869690	-0.624552	0.432010
Schwarz SC	5.024124	-0.470118	0.586445

Mean dependent	-2.756765	0.112393	-0.010920
S.D. dependent	2.744436	0.188674	0.300286

Determinant resid covariance (dof adj.)	0.016717
Determinant resid covariance	0.012948
Log likelihood	-102.0870
Akaike information criterion	4.656612
Schwarz criterion	5.119914
Number of coefficients	12

VAR Stability

Roots of Characteristic Polynomial

Endogenous variables: MAS_THA

D(LT_MAS_THA) D(F_MAS_THA)

Exogenous variables: C

Lag specification: 1 1

Date: 09/19/22 Time: 17:26

Root	Modulus
0.041297 - 0.206045i	0.210143
0.041297 + 0.206045i	0.210143
-0.109298	0.109298

No root lies outside the unit circle.

VAR satisfies the stability condition.

Singapura-Filipina**VAR Estimates**

Vector Autoregression Estimates

Date: 09/19/22 Time: 18:08

Sample (adjusted): 1974 2020

Included observations: 47 after adjustments

Standard errors in () & t-statistics in []

	SIN_PHI	D(LT_SIN_PHI)	D(F_SIN_PHI)
SIN_PHI(-1)	0.194135 (0.15524) [1.25056]	-0.029213 (0.01845) [-1.58353]	0.020954 (0.01626) [1.28865]
SIN_PHI(-2)	0.220014 (0.16525) [1.33141]	-0.018857 (0.01964) [-0.96025]	0.000747 (0.01731) [0.04317]
SIN_PHI(-3)	-0.137853 (0.15209) [-0.90640]	0.003998 (0.01807) [0.22119]	0.036076 (0.01593) [2.26466]
D(LT_SIN_PHI(-1))	-1.666385 (1.38321) [-1.20472]	-0.148037 (0.16437) [-0.90061]	0.089941 (0.14488) [0.62079]
D(LT_SIN_PHI(-2))	-0.695318 (1.40033) [-0.49654]	-0.214272 (0.16641) [-1.28763]	0.102786 (0.14667) [0.70077]
D(LT_SIN_PHI(-3))	1.211668 (1.35027)	-0.046960 (0.16046)	0.191962 (0.14143)

	[0.89735]	[-0.29266]	[1.35728]
D(F_SIN_PHI(-1))	-1.385366 (1.50784) [-0.91878]	0.093441 (0.17918) [0.52148]	-0.052211 (0.15794) [-0.33059]
D(F_SIN_PHI(-2))	-0.144875 (1.46575) [-0.09884]	-0.030952 (0.17418) [-0.17770]	-0.221637 (0.15353) [-1.44364]
D(F_SIN_PHI(-3))	-2.277237 (1.40167) [-1.62466]	0.154378 (0.16657) [0.92682]	0.056455 (0.14681) [0.38453]
C	-2.019536 (0.72276) [-2.79419]	-0.005359 (0.08589) [-0.06239]	0.186996 (0.07570) [2.47009]
R-squared	0.266854	0.156756	0.212932
Adj. R-squared	0.088521	-0.048358	0.021483
Sum sq. resids	239.0040	3.375160	2.622126
S.E. equation	2.541568	0.302027	0.266211
F-statistic	1.496381	0.764240	1.112214
Log likelihood	-104.9089	-4.798049	1.134695
Akaike AIC	4.889741	0.629704	0.377247
Schwarz SC	5.283390	1.023353	0.770895
Mean dependent	-3.200536	0.100945	0.039216
S.D. dependent	2.662125	0.294979	0.269117
Determinant resid covariance (dof adj.)		0.037269	
Determinant resid covariance		0.018183	
Log likelihood		-105.8991	
Akaike information criterion		5.782941	
Schwarz criterion		6.963886	
Number of coefficients		30	

VAR Stability

Roots of Characteristic Polynomial

Endogenous variables: SIN_PHI

D(LT_SIN_PHI) D(F_SIN_PHI)

Exogenous variables: C

Lag specification: 1 3

Date: 09/19/22 Time: 18:09

Root	Modulus
0.601187 - 0.396831i	0.720348
0.601187 + 0.396831i	0.720348
-0.559514 - 0.262457i	0.618013
-0.559514 + 0.262457i	0.618013
-0.212897 - 0.578761i	0.616676
-0.212897 + 0.578761i	0.616676
0.065804 - 0.583478i	0.587176
0.065804 + 0.583478i	0.587176
0.204726	0.204726

No root lies outside the unit circle.

VAR satisfies the stability condition.

Singapura-Thailand

VAR Estimates

Vector Autoregression Estimates

Date: 09/19/22 Time: 18:13

Sample (adjusted): 1974 2020

Included observations: 47 after adjustments

Standard errors in () & t-statistics in []

	SIN_THA	D(LT_SIN_THA)	D(F_SIN_THA)
SIN_THA(-1)	-0.229875 (0.15735) [-1.46092]	-0.006335 (0.00960) [-0.65975]	0.005720 (0.01162) [0.49202]
SIN_THA(-2)	0.139903 (0.14737) [0.94931]	0.001496 (0.00899) [0.16630]	0.014504 (0.01089) [1.33215]
SIN_THA(-3)	0.143912 (0.14788) [0.97317]	0.019292 (0.00902) [2.13768]	-0.010665 (0.01093) [-0.97620]
D(LT_SIN_THA(-1))	-1.962079 (2.67368) [-0.73385]	0.333208 (0.16317) [2.04214]	0.219554 (0.19753) [1.11150]
D(LT_SIN_THA(-2))	-2.134009 (2.80103) [-0.76187]	0.115047 (0.17094) [0.67304]	-0.082592 (0.20694) [-0.39911]
D(LT_SIN_THA(-3))	2.555339 (2.62248) [0.97440]	-0.018625 (0.16004) [-0.11638]	-0.249387 (0.19375) [-1.28718]
D(F_SIN_THA(-1))	-2.293803 (2.26521) [-1.01262]	-0.069423 (0.13824) [-0.50220]	-0.273601 (0.16735) [-1.63488]
D(F_SIN_THA(-2))	-0.333048 (2.26133) [-0.14728]	-0.087583 (0.13800) [-0.63465]	0.051272 (0.16707) [0.30690]
D(F_SIN_THA(-3))	-0.206043 (2.13768) [-0.09639]	-0.040287 (0.13046) [-0.30882]	0.172048 (0.15793) [1.08939]
C	-2.598881 (0.87617) [-2.96617]	0.098270 (0.05347) [1.83785]	0.061337 (0.06473) [0.94756]
R-squared	0.168516	0.221556	0.203206
Adj. R-squared	-0.033737	0.032205	0.009391
Sum sq. resids	294.7419	1.097699	1.608754
S.E. equation	2.822410	0.172243	0.208518
F-statistic	0.833193	1.170079	1.048452
Log likelihood	-109.8350	21.59777	12.61504
Akaike AIC	5.099362	-0.493522	-0.111278
Schwarz SC	5.493010	-0.099874	0.282370
Mean dependent	-2.995311	0.091269	0.015019
S.D. dependent	2.775972	0.175085	0.209504

Determinant resid covariance (dof adj.)	0.008571
Determinant resid covariance	0.004182
Log likelihood	-71.35917
Akaike information criterion	4.313156
Schwarz criterion	5.494101
Number of coefficients	30

VAR Stability

Roots of Characteristic Polynomial

Endogenous variables: SIN_THA

D(LT_SIN_THA) D(F_SIN_THA)

Exogenous variables: C

Lag specification: 1 3

Date: 09/19/22 Time: 18:14

Root	Modulus
0.726055	0.726055
-0.366398 - 0.584319i	0.689693
-0.366398 + 0.584319i	0.689693
-0.621838	0.621838
0.425403 - 0.387610i	0.575507
0.425403 + 0.387610i	0.575507
-0.402908 - 0.344327i	0.529996
-0.402908 + 0.344327i	0.529996
0.413320	0.413320

No root lies outside the unit circle.

VAR satisfies the stability condition.

Filipina-Thailand

VAR Estimates

Vector Autoregression Estimates

Date: 09/19/22 Time: 18:25

Sample (adjusted): 1973 2020

Included observations: 48 after adjustments

Standard errors in () & t-statistics in []

	PHI_THA	D(LT_PHI_THA)	D(F_PHI_THA)
PHI_THA(-1)	-0.028529 (0.14528) [-0.19637]	-0.027342 (0.02088) [-1.30930]	-0.026344 (0.01351) [-1.94995]
PHI_THA(-2)	0.215385 (0.15009) [1.43507]	-0.028395 (0.02157) [-1.31620]	0.030942 (0.01396) [2.21699]
D(LT_PHI_THA(-1))	1.836392 (0.92347) [1.98857]	-0.611360 (0.13274) [-4.60577]	-0.178162 (0.08587) [-2.07468]
D(LT_PHI_THA(-2))	0.855213 (0.63752) [1.34147]	-0.183209 (0.09164) [-1.99932]	0.024784 (0.05928) [0.41806]
D(F_PHI_THA(-1))	0.829554 (1.55412) [0.53378]	-0.217695 (0.22339) [-0.97452]	-0.152772 (0.14452) [-1.05710]

D(F_PHI_THA(-2))	-1.732996 (1.46623) [-1.18194]	0.151307 (0.21075) [0.71794]	-0.040733 (0.13635) [-0.29874]
C	-2.415094 (0.64990) [-3.71613]	0.082072 (0.09341) [0.87857]	0.025142 (0.06043) [0.41603]
R-squared	0.184927	0.394112	0.313610
Adj. R-squared	0.065648	0.305445	0.213162
Sum sq. resids	246.7195	5.097375	2.133468
S.E. equation	2.453069	0.352599	0.228114
F-statistic	1.550374	4.444872	3.122131
Log likelihood	-107.3983	-14.28964	6.613799
Akaike AIC	4.766595	0.887068	0.016092
Schwarz SC	5.039478	1.159952	0.288975
Mean dependent	-2.470891	0.108151	-0.001264
S.D. dependent	2.537783	0.423085	0.257163
Determinant resid covariance (dof adj.)		0.037403	
Determinant resid covariance		0.023310	
Log likelihood		-114.1138	
Akaike information criterion		5.629741	
Schwarz criterion		6.448392	
Number of coefficients		21	

VAR Stability

Roots of Characteristic Polynomial

Endogenous variables: PHI_THA

D(LT_PHI_THA) D(F_PHI_THA)

Exogenous variables: C

Lag specification: 1 2

Date: 09/19/22 Time: 18:25

Root	Modulus
-0.476869 - 0.318269i	0.573323
-0.476869 + 0.318269i	0.573323
0.301249 - 0.247709i	0.390014
0.301249 + 0.247709i	0.390014
-0.220710 - 0.217008i	0.309524
-0.220710 + 0.217008i	0.309524

No root lies outside the unit circle.

VAR satisfies the stability condition.

BIODATA

Identitas Diri

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Riwayat Pendidikan

Pendidikan Formal

1. SD Negeri 28 Tumampua II
2. SMP Negeri 2 Pangkajene
3. SMA Negeri 11 Pangkep

Pendidikan Non-Formal

1. *Basic Learning Skills: Character & Creativity (BALANCE)* Universitas Hasanuddin 2017.
2. *In House Training* LPM Media Ekonomi FEB-UH
3. *Economics Leadership Training* HIMAJIE FEB-UH
4. *Intermediate Student Leadership Training (ISLT)* HIMAJIE FEB-UH

Pengalaman Organisasi

1. **Anggota**
Ikatan Pemuda Pelajar dan Mahasiswa Pangkep Universitas Hasanuddin (IPPMP-UH)
2. **Koordinator Keilmuan dan Advokasi**
Himpunan Mahasiswa Jurusan Ilmu Ekonomi (HIMAJIE) FEB-UH
3. **Deputi Lingkungan Hidup**
Generasi Baru Indonesia (GenBI) Komisariat Universitas Hasanuddin
4. **Wakil Ketua**
Generasi Baru Indonesia (GenBI) Wilayah Sulawesi Selatan
5. **Jurnalis**
LPM Media Ekonomi FEB-UH
6. **Anggota**
Majelis Permusyawaratan Mahasiswa (MAPERWA) FEB-UH

Makassar, 29 November 2022

Muhammad Nur Fitrah Ramadhan