

Appendix

Table A: Data for the period of 1991-2020 utilized in the analysis.

Year	GDP	Agriculture	Industry	Services	Exports
1991	151787193702	22608263493	65425663658	54254056203	20135326282
1992	158816751511	23136854874	69433859865	56143476437	14795732933
1993	155584641982	23570485890	64704529819	58153695272	17554871348
1994	152760898222	24174971952	60875081594	59243515278	17951860634
1995	152649894872	25041985448	59041800987	60412525496	16412261307
1996	159054968516	26025223590	62377161330	61923387417	14626927660
1997	163726571074	27108979849	63561546290	64178999835	21633809133
1998	167952769907	28176557178	63810789995	67166112762	22085223008
1999	168933827206	29614600391	61175600675	69855470651	19710467846
2000	177407437762	30479227845	65739154985	72195685921	22322698524
2001	187905850477	31635008246	69417867339	77530271181	17050178134
2002	216710230938	49217128085	70312008566	86355878387	19032667937
2003	232632354125	52665800564	78861886332	88560936777	25001543050
2004	254152145502	55963326964	80250901051	106271709946	24762848686
2005	270515773389	59919909001	81611505729	117570381443	27827137391
2006	286907481991	64361701709	80008689893	132113945318	47410660604
2007	305817928143	68995592821	78466358739	149098891856	39373980637
2008	326504898642	73320393997	76862400591	168483583439	56477031700
2009	352745852800	77632934910	78788250885	189421649654	39523893134
2010	380985472031	82157104571	82910799856	213810176054	44047664648
2011	401207892113	84552681417	89867917226	224279116714	55408753592
2012	418179231389	90221227295	92049638907	233180078950	53420148986
2013	446077370458	92870735971	94040566720	252728822621	41808469033
2014	474223597521	96836434656	1.00395E+11	270030620490	51878051598
2015	486803295098	100436737303	98143355464	282940891483	51923946713
2016	478932323772	104561419190	89457301146	280633731260	57911584063
2017	482791975286	108163781584	91376995421	278070292324	62972886455
2018	492074893436	110459669077	93086894603	283151439745	62084568960
2019	502942019448	113068998437	95239166938	289430243147	71382138449
2020	493917966761	115521909184	89670590153	282998149037	52135112985

Source: World Bank national accounts data, and OECD National Accounts data files, 2022.

Table B: Correlation coefficient for Log difference of GDP and Agriculture, forestry and fishing value added.

```
corr(ld_GDP, ld_Agriculture) = 0.79955316
Under the null hypothesis of no correlation:
t(27) = 6.91747, with two-tailed p-value 0.0000
```

Source: Author's computation using Gretl, 2022

Table C: Augmented Dickey-Fuller Test for level of variable GDP

```
Augmented Dickey-Fuller test for GDP
testing down from 1 lags, criterion AIC
sample size 28
unit-root null hypothesis: a = 1

test with constant
including one lag of (1-L)GDP
model: (1-L)y = b0 + (a-1)*y(-1) + ... + e
estimated value of (a - 1): -0.033999
test statistic: tau_c(1) = -0.864968
asymptotic p-value 0.7997
1st-order autocorrelation coeff. for e: -0.016
```

Source: Author's computation using Gretl, 2022

Table D: Augmented Dickey-Fuller Test for level of variable Agriculture

```
Augmented Dickey-Fuller test for Agriculture
testing down from 1 lags, criterion AIC
sample size 28
unit-root null hypothesis: a = 1

test with constant
including one lag of (1-L)Agriculture
model: (1-L)y = b0 + (a-1)*y(-1) + ... + e
estimated value of (a - 1): -0.0258773
test statistic: tau_c(1) = -0.664978
asymptotic p-value 0.8535
1st-order autocorrelation coeff. for e: -0.004
```

Source: Author's computation using Gretl, 2022

Table E: Augmented Dickey-Fuller Test for level of variable Services

```
Augmented Dickey-Fuller test for Services
testing down from 1 lags, criterion AIC
sample size 28
unit-root null hypothesis: a = 1

test with constant
including one lag of (1-L)Services
model: (1-L)y = b0 + (a-1)*y(-1) + ... + e
estimated value of (a - 1): -0.0409924
test statistic: tau_c(1) = -1.16024
asymptotic p-value 0.6938
1st-order autocorrelation coeff. for e: -0.024
```

Source: Author's computation using Gretl, 2022

Table F: Augmented Dickey-Fuller Test for level of variable Industry

```
Augmented Dickey-Fuller test for Industry
testing down from 1 lags, criterion AIC
sample size 29
unit-root null hypothesis: a = 1

test with constant
including 0 lags of (1-L)Industry
model: (1-L)y = b0 + (a-1)*y(-1) + e
estimated value of (a - 1): -0.030891
test statistic: tau_c(1) = -0.497631
asymptotic p-value 0.8894
1st-order autocorrelation coeff. for e: 0.234
```

Source: Author's computation using Gretl, 2022

Table G : Augmented Dickey-Fuller Test for level of variable Exports

```
Augmented Dickey-Fuller test for Exports
testing down from 1 lags, criterion AIC
sample size 29
unit-root null hypothesis: a = 1

test with constant
including 0 lags of (1-L)Exports
model: (1-L)y = b0 + (a-1)*y(-1) + e
estimated value of (a - 1): -0.170494
test statistic: tau_c(1) = -1.66342
asymptotic p-value 0.45
1st-order autocorrelation coeff. for e: -0.067
```

Source: Author's computation using Gretl, 2022

Table H: Augmented Dickey-Fuller Test for Log difference of GDP

```
Augmented Dickey-Fuller test for ld_GDP
testing down from 1 lags, criterion AIC
sample size 28
unit-root null hypothesis: a = 1

test with constant
including 0 lags of (1-L)ld_GDP
model: (1-L)y = b0 + (a-1)*y(-1) + e
estimated value of (a - 1): -0.798266
test statistic: tau_c(1) = -4.15084
asymptotic p-value 0.0007958
1st-order autocorrelation coeff. for e: -0.078
```

Source: Author's computation using Gretl, 2022

Table I: Augmented Dickey-Fuller Test for Log difference of Agriculture

```
Augmented Dickey-Fuller test for ld_Agriculture
testing down from 1 lags, criterion AIC
sample size 28
unit-root null hypothesis: a = 1

test with constant
including 0 lags of (1-L)ld_Agriculture
model: (1-L)y = b0 + (a-1)*y(-1) + e
estimated value of (a - 1): -0.832381
test statistic: tau_c(1) = -4.3493
asymptotic p-value 0.0003594
1st-order autocorrelation coeff. for e: -0.037
```

Source: Author's computation using Gretl, 2022

Table J: Augmented Dickey-Fuller Test for Log difference of Industry

```
Augmented Dickey-Fuller test for ld_Industry
testing down from 1 lags, criterion AIC
sample size 27
unit-root null hypothesis: a = 1

test with constant
including one lag of (1-L)ld_Industry
model: (1-L)y = b0 + (a-1)*y(-1) + ... + e
estimated value of (a - 1): -1.153
test statistic: tau_c(1) = -5.58754
asymptotic p-value 1.102e-06
1st-order autocorrelation coeff. for e: 0.046
```

Source: Author's computation using Gretl, 2022

Table K: Augmented Dickey-Fuller Test for Log difference of Services

```
Augmented Dickey-Fuller test for ld_Services
testing down from 1 lags, criterion AIC
sample size 28
unit-root null hypothesis: a = 1

test with constant
including 0 lags of (1-L)ld_Services
model: (1-L)y = b0 + (a-1)*y(-1) + e
estimated value of (a - 1): -0.70065
test statistic: tau_c(1) = -3.6884
asymptotic p-value 0.004303
1st-order autocorrelation coeff. for e: -0.127
```

Source: Author's computation using Gretl, 2022

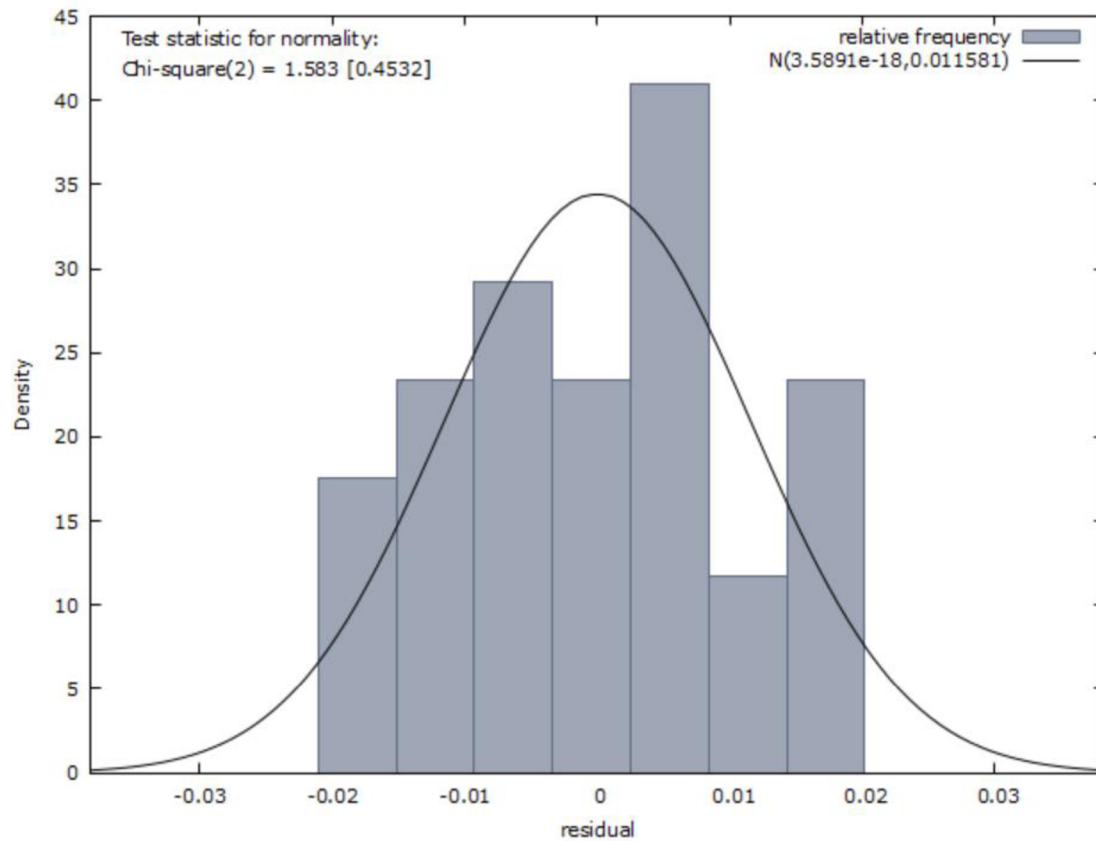
Table K: Augmented Dickey-Fuller Test for Log difference of Exports

```
Augmented Dickey-Fuller test for ld_Exports
testing down from 1 lags, criterion AIC
sample size 28
unit-root null hypothesis: a = 1

test with constant
including 0 lags of (1-L)ld_Exports
model: (1-L)y = b0 + (a-1)*y(-1) + e
estimated value of (a - 1): -1.08151
test statistic: tau_c(1) = -5.34026
asymptotic p-value 3.903e-06
1st-order autocorrelation coeff. for e: -0.027
```

Source: Author's computation using Gretl, 2022

Graph 1: Normality test result



Source: Author's computation using Gretl, 2022

Table K: Augmented Dickey-Fuller Test for Log difference of Exports

COUNTRY	2000	2005	2010	2013	2014	2015	2016	2017	2018
Nauru	2.5	2.5	1.6	1.7	1.9	2.5	2.5	2.6	2.6
Nepal	3 755.3	4 576.6	5 230.8	5 782.5	6 045.4	6 112.0	6 125.8	6 444.4	6 624.0
Netherlands	10 914.3	11 372.4	12 448.2	12 359.4	12 927.3	13 195.7	13 489.6	13 553.2	13 208.8
New Zealand	6 916.3	7 691.0	6 378.4	7 310.4	7 694.7	7 961.8	7 979.1	7 493.9	8 128.5
Nicaragua	1 418.2	1 637.6	1 965.3	2 025.9	2 068.5	2 055.1	2 153.7	2 337.1	2 348.3
Niger	1 373.8	1 829.1	2 568.7	2 849.3	3 091.5	3 149.5	3 697.2	3 896.8	4 171.9
Nigeria	30 966.3	60 877.5	83 470.0	94 354.8	98 383.9	102 041.8	106 232.4	109 892.3	112 224.9
North Macedonia	863.6	906.5	1 004.1	932.0	961.1	979.0	975.2	844.0	801.9
Norway	3 733.9	4 423.9	5 617.6	5 873.8	6 277.9	5 931.9	5 574.9	5 809.7	5 823.0
Oman	679.6	716.6	872.5	1 020.3	1 377.5	1 491.6	1 621.8	2 075.0	2 385.9
Pakistan	43 365.1	48 238.5	56 006.5	60 756.7	62 273.5	63 600.0	63 697.9	65 014.2	67 491.2
Palau	10.7	9.7	9.3	9.0	8.5	8.2	8.8	9.6	9.1
Panama	1 269.9	1 587.2	1 392.8	1 476.1	1 504.8	1 507.0	1 518.7	1 528.1	1 542.7
Papua New Guinea	3 049.4	3 279.2	3 608.5	4 036.2	4 169.3	4 315.4	4 472.6	4 660.9	4 840.9
Paraguay	1 422.0	1 853.8	3 029.7	3 300.4	3 434.0	3 417.7	3 525.0	3 735.6	3 933.5
Peru	8 495.2	9 397.8	11 519.4	13 006.0	12 864.3	13 372.8	13 605.4	13 913.0	15 231.8
Philippines	20 872.6	24 905.0	27 657.0	29 505.5	29 999.7	30 039.1	29 674.3	30 851.0	31 125.9
Poland	9 543.2	11 351.9	11 316.8	11 407.4	11 486.6	10 513.3	10 830.2	11 101.8	9 687.2
Portugal	3 906.1	3 880.9	3 845.2	3 981.7	3 980.8	4 184.5	4 134.8	4 218.6	4 189.6
Qatar	96.1	95.4	166.0	193.6	242.2	260.9	284.4	307.7	333.4
Republic of Korea	23 930.8	23 687.5	27 306.2	28 021.5	29 445.4	29 372.7	27 717.8	28 342.5	28 767.3
Republic of Moldova	727.5	893.3	770.7	946.8	1 028.1	891.1	1 055.0	1 145.2	1 162.3
Romania	6 589.7	8 245.2	6 490.0	7 977.6	8 376.5	7 446.2	7 758.9	8 887.7	9 776.2
Russian Federation	37 962.6	43 010.8	42 350.2	49 892.1	51 515.9	52 754.8	53 947.6	54 759.5	53 639.6
Rwanda	1 059.1	1 415.9	1 798.0	2 070.5	2 208.1	2 317.7	2 407.6	2 566.3	2 716.6
Saint Kitts and Nevis	7.0	11.9	9.5	9.6	9.7	9.5	8.7	11.0	11.4
Saint Lucia	61.7	36.0	27.1	32.6	28.9	30.3	30.5	28.9	30.5
Saint Vincent and the Grenadines	43.7	42.5	44.5	47.5	48.8	47.1	50.2	52.5	53.9
Samoa	104.3	87.7	69.8	68.1	68.6	69.9	74.9	80.2	70.2

Source: FAO, 2020