DOES SERVICES SECTOR GROWTH INFLUENCE ECONOMIC GROWTH? EVIDENCE FROM ASEAN ECONOMIES

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ABSTRACT

In the global economy, the service sector plays a dynamic role, contributing to various facets of the economy. It is the largest contributor to the gross domestic product (GDP) of the Association of Southeast Asian Nations (ASEAN) member states, and its contribution to GDP in ASEAN countries is on the rise. Given the growing contribution of the sector in the ASEAN countries, this study explores the role of the growth of the services sector in their economies' economic growth. Using panel cointegration (long-run) tests and pooled mean group Autoregressive Distributed-lag (ARDL) model on yearly data from 1970 to 2017, the findings support both short- and long-run association between growth in the services sector and economic growth of the ASEAN economies. This cross-country analysis also provides insight into the impact of services-sector growth to per capita economic growth of each of the ASEAN countries. The results support the notion that growth in the services sector in ASEAN economies should be given significant support for the economic growth of the region.

Keywords: *Services Sector, Economic Growth, ARDL, Cointegration, ASEAN*

INTRODUCTION

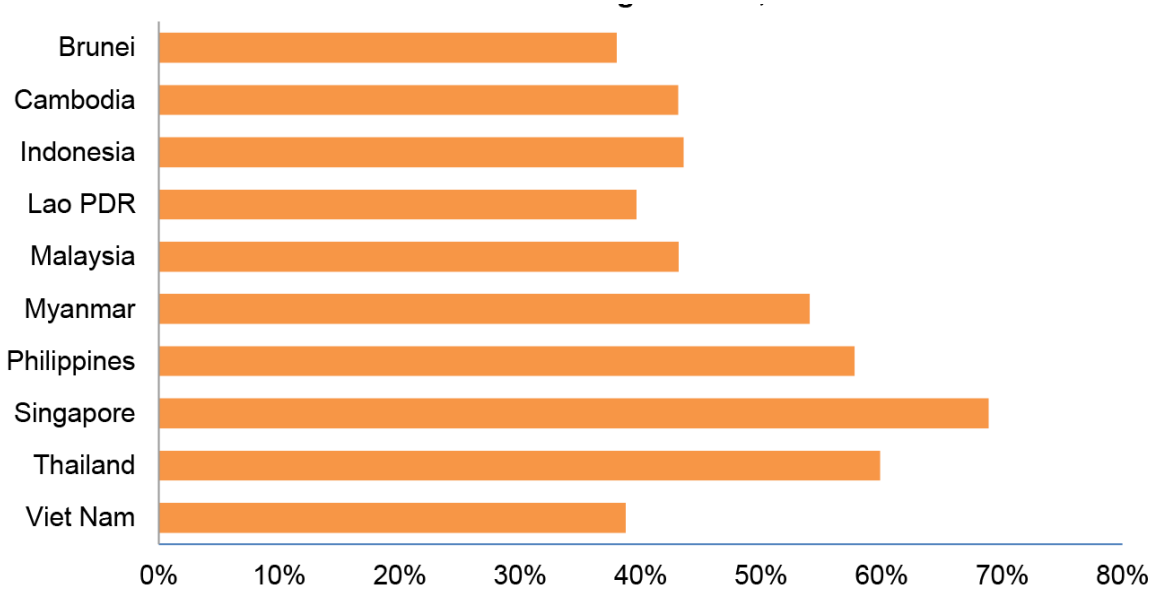
The Association of Southeast Asian Nations (ASEAN) was set up as a regional intergovernmental organisation with the primary objective of accelerating economic growth amongst the South East Asian Nations. As services-sector(SS) became a major growth driver in developed countries, emerging and developing countries started to recognise the value of the benefits of SS growth. While ASEAN countries allocate the bulk of their resource expenditure to infrastructural facilities, they have not been able to generate accelerated economic growth. Except for some ASEAN countries, the governments were protective of their nation's service sector. Governments have gradually envisaged their role in creating an ecosystem that is sustainable and capable of providing an effective and competitive service sector. In December 2008, the ASEAN Charter approved the establishment of a single free trade area for the region by the member states and transformed ASEAN into a legal entity. With the realisation of the ASEAN Economic Community (AEC), trade and services sector reforms are experiencing more liberalisation. AEC looks for the integration of the member states into a single market facilitating free movement of goods, services (The ASEAN Charter, 2020).

The need for better financial intermediation facilities, banking and other financial services in the ASEAN region to serve the larger intra-ASEAN market was realised with the

establishment of the AEC. The ASEAN economies agreed on a list of modalities and adopted milestones to promote negotiations on the free movement of services, commodities, investment, labour (skilled workers) and resources, among other items, in order to achieve the objectives of SS liberalisation. As a growth driver for the ASEAN economies, modern services such as wholesale, retail trade, restaurants & hotels, transport, communication & storage, financial intermediation and business services are likely to play a significant role in promoting economic growth. The SS contribution to GDP in 2017 was greatest in the case of Singapore (75.2%) followed by the Philippines (59.8%), Thailand (55.6%) and Malaysia (54.7%). The SS contribution to GDP in 2017 was about 46% in the case of Lao and Indonesia. The ten ASEAN countries have a collective GDP of US$2.4 trillion as on 2019 with 630 million people, and the economy is ranked just after China and India as the fastest-growing economy. (Figure 1)

Tables and Figures

Figure 1- Services as a % of GDP, 2016 (Source: ASEANStats, 2019)



ASEAN's economies have witnessed the global financial crisis triggered by the US subprime crisis of 2008. With the majority of the nations in this cohort being open economies, the recession in the US and Eurozone badly impacted its exports and its economic growth. For policymakers, it is imperative to understand what impacts the country's economic growth and services sector have both direct and indirect effects on economic growth. A policy shift towards services could lead to an increase in aggregate productivity. For example, the cost of production and the productivity of companies in all sectors of the economy will benefit to a large degree from efficient transport and logistics services or even telecommunications services.

The objective of the paper is to examine the services sector growth (SSG) and economic growth nexus, both in short-run and long-run, for the ASEAN economies. We discuss whether

the growth of the service sector influences economic growth or vice versa and whether the relationship is long-term or even short-term. While the present study examines the relationship between SSG and economic growth, the findings can contribute and aid the policymakers in understanding the short- and long-run equilibrium relationship between the two and the role of the services sector in delivering economic growth through different channels. In view of the COVID-19 crisis, the findings are critical as the crisis-hit nations' policymakers can take a clue from the services sector – the economic growth nexus during and after the global financial crisis era.

LITERATURE REVIEW

Early studies (Chenery, 1960; Clark, 1957) supported a favourable contribution of the share of services in GDP (or total employment) and GDPpc (gross domestic product per capita). Yeung (1996) noticed that many service-oriented firms were entering the Asia-Pacific region since the 1980s. The author argued that increased globalisation of economic and financial activities along with widespread overseas network and improved links between global and world-renowned corporations are the driving forces to bring the service-oriented firms in the region. Eichengreen and Gupta (2012) argue that the association between the share of services in GDP and GDP per capita is not always linear because the SSG has different wave patterns in different countries. Along with economic growth, the services sector can become larger, while overall economic growth depends on the output of the services sector. Market services like producer services (banking and finances), distribution services (transport and storage), personal services (hotels and restaurants) and communication services (internet) have a significant influence on the SS of the ASEAN economies.

Hill (1977), Riddle (1986), and Bhagwati (1987) have unambiguously defined the scope of the SS with Bhagwati (1987) arguing that developed nations have an advantage in the export of services. The SS has been often termed as the tertiary sector (residual) following primary and secondary sector (Toh and Low, 1989). Gershung & Miles (1983) and Park & Chan (1989) have, in general, branded service activities into the market and non-market activities. Pang & Sunderberg (1988), Arndt (1989), Yeung (1996) and Gani and Clemes (2002) have given particular importance to the role of growth in the SS in building ASEAN economies. However, in a cross-sectional country-level study, Dutt and Lee (1993) suggest that SSG hurts economic growth in general. Eschenbach and Hoekman (2006) showed that services make a major contribution to nations' economic growth and policy changes that help the service sector are important in understanding the economic success of transition economies. Singh (2009) reports both short-term and long-term nexus between SS and economic growth and between services and nonservices sectors in India. Suryadarma et al. (2013) note that the SS contributes to Indonesia's economic growth through employment creation. Zhao and Tang (2015) showed that the growth in China's post-2000 economy could be largely attributed to its dependency on the service sector, although the export of high-technology products made a major contribution to GDP. Lee and McKibbin (2018) argued for the prominent role of SSG in bringing balanced growth of Asian

economies. The supportive role of the SS in driving economies of Asian nations is also reported by Bosworth and Maertens (2010) and Kim and Wood (2020).

DATA AND METHODOLOGY

Yearly data of SS contribution to GDP (in USD) comprising of wholesale and retail trade; restaurants and hotels; transport; storage and communication; and other activities from 1970 - 2017 for the ten ASEAN countries (Vietnam, Thailand, Singapore, Philippines, Myanmar, Laos, Malaysia, Indonesia, Brunei and Cambodia) are obtained from World Bank website (https://data.worldbank.org/). The SS contribution to GDP measures SSG. GDP per capita (GDPpc) is the economic growth proxy calculated as the gross domestic product converted to US dollars using purchasing power parity rates and divided by the total population (Gani and Clemes, 2002; Aye and Edoja, 2017).

A multivariate model is employed, and the panel sort of the equation is given below:

$$LnGDPpc_{it} = \alpha_{0,i} + \alpha_{1,i} LnSSG_{it} + \varepsilon_{it} \quad \ldots\ldots\ldots \quad (1)$$

The i in equation 1 above represents the ten ASEAN economies in panel form.

The panel data have been checked for stationarity, cointegration, causality and cross-section dependence. Unit Root Tests (URT) or the Stationarity tests, as proposed by Shin et al. (2003), Breitung t-statistics (2000), Maddala and Wu (1999), Levin et al. (2002). Fisher (PP and ADF) tests are conducted to understand the presence of unit root in the data.

3.1 Cointegration test for Panel data

The panel cointegration test of Kao (1999) and Johansen Fisher Panel (JFP) Test (Maddala and Wu, 1999) follows URTs. It is performed under the null hypothesis of no cointegration to understand the long-term association between SSG and economic growth.

3.2 Pooled Mean Group ARDL Model

The ARDL model of Pesaran et al. (PSS, 1999) assumes that both intercepts and slopes differ across ASEAN countries and thus allows us to recognise both short- and long-run behaviour between SSG and economic growth of the ASEAN economies. We examine the following equation here:

$$\Delta LnGDPpc_{i,t} = \phi_i ECT_{i,t} + \sum_{j=0}^{q-1} \beta_{i,j} \Delta LnSSG_{i,t-j} + \sum_{j=0}^{p-1} \beta_{i,j} \Delta LnGDPpc_{i,t-j} + \varepsilon_{i.t} \quad \ldots (3)$$

when $ECT_{i,t}$ is the error correction term, p and q are the lag lengths, Δ is the first difference operator. The adjustment coefficient ϕ_i is the feedback effect that shows how much of the disequilibrium is being corrected and calculates the rate of adjustment towards long-run equilibrium. The intercepts, short-run coefficients and cointegrating terms vary across cross-

sections. For notational convenience, the study assumes the regressors have an identical number of lags in each cross-section.

3.3 Ordinary Least Square (OLS) Models

As the variables LnSSG and LnGDPpc are cointegrated, we employ two estimation methods in the presence of panel cointegration: Fully Modified Ordinary Least Square (FMOLS) and Dynamic Ordinary Least Square (DOLS) for an unbiased estimate of the long-run relationship. According to Hamit-Haggar (2012), FMOLS is the most suitable technique for the panel which includes heterogeneous cointegration. Dynamic OLS estimator had the same asymptotic distribution as that of the panel FMOLS estimation and helps us to overcome endogeneity bias and serial correlation. Both the DOLS and FMOLS estimates were carried out to confirm the consistency of the result and to calculate the long-run elasticity. Both pooled, and group mean estimators for both FMOLS and DOLS are obtained as a robustness test

RESULTS AND INTERPRETATION

The empirical analysis begins with a summary of the descriptive statistics, as reported in Table 1. The standard deviation highlights the variation of variables from their mean. The GDP per capita and growth in the services-sector is normally distributed for all the ASEAN nations except for Brunei Darussalam and Myanmar. Next, we report in Table 2, the panel type URT results. The evidence of UR is observed at level (logarithmic) for all the two variables in three out of the five tests. Findings of panel URT done at the first difference of LnGDPpc and LnSSG supports the rejection of the null hypothesis of unit root at 1% level of significance indicating that they are stationary at first difference form for ASEAN countries.

Table 1: Descriptive Statistics

	Mean	Median	Maximum	Minimum	Std. Dev.	Skewness	Kurtosis	Jarque-Bera
LnGDPpc								
Brunei Darussalam	9.75	9.83	10.77	7.45	0.75	-1.46	5.33	27.84 (0.00)
Cambodia	5.59	5.53	7.23	4.46	0.84	0.41	1.95	3.53 (0.17)
Indonesia	6.74	6.68	8.26	4.50	0.97	-0.36	2.88	1.06 (0.59)
Laos	5.66	5.64	7.81	3.79	1.13	0.27	2.20	1.86 (0.39)
Malaysia	7.98	8.12	9.32	5.87	0.93	-0.45	2.51	2.16 (0.33)
Myanmar	5.44	5.15	7.15	4.52	0.81	1.20	2.97	11.59 (0.00)
Philippines	6.83	6.83	8.00	5.33	0.68	-0.16	2.71	0.38 (0.83)
Singapore	9.46	9.91	10.95	6.83	1.18	-0.56	2.26	3.64 (0.16)

Thailand	7.33	7.57	8.79	5.29	1.01	-0.37	2.13	2.66 (0.26)
Vietnam	5.52	5.29	7.75	3.52	1.28	0.34	1.78	3.89 (0.14)
LnSSG								
Brunei Darussalam	20.81	21.39	22.45	16.59	1.56	-1.31	3.94	15.65 (0.00)
Cambodia	20.78	20.74	22.89	19.39	1.12	0.36	1.86	3.67 (0.16)
Indonesia	24.92	24.99	26.81	22.09	1.24	-0.46	2.72	1.86 (0.39)
Laos	20.10	20.13	22.67	17.76	1.40	0.26	2.12	1.90 (0.39)
Malaysia	23.92	24.24	25.85	21.17	1.36	-0.34	2.10	2.55 (0.27)
Myanmar	21.95	21.60	24.01	20.86	0.97	1.13	2.83	10.31 (0.01)
Philippines	24.04	24.12	25.95	21.77	1.17	-0.13	2.19	1.42 (0.49)
Singapore	24.05	24.44	26.15	20.94	1.52	-0.34	2.01	2.91 (0.23)
Thailand	24.49	24.87	26.26	22.00	1.24	-0.46	2.12	3.22 (0.19)
Vietnam	22.75	22.76	25.24	20.53	1.47	0.18	1.62	4.04 (0.13)

Table 2: Panel type URT of LnGDPpc and LnSSG

Procedure	Variable	Lag	Stats	Variable	Lag	Stats
L. and L. & Chu t stat Null: Presence of Unit root (UR)	LnGDPpc	1	-2.1270 (0.0167)	D(LnGDPpc)	0	-12.4556 (0.0000)
	LnSSG	2	-3.2788 (0.0000)	D(LnSSG)	0	-12.1458 (0.0000)
Im et al. 2003 Null: Presence of UR	LnGDPpc	1	-1.3490 (0.0887)	D(LnGDPpc)	0	(0.0000)
	LnSSG	2	-1.6823 (0.0463)	D(LnSSG)	0	-10.8325 (0.0000)
Fisher Chi-square - ADF Null: Presence of UR	LnGDPpc	1	27.5032 (0.1217)	D(LnGDPpc)	0	137.508 (0.0000)
	LnSSG	2	23.0663 (0.1120)	D(LnSSG)	0	127.768 (0.0000)
Fisher Chi-square- PP Null: Presence of UR	LnGDPpc	1	17.1947 (0.6403)	D(LnGDPpc)	0	144.405 (0.0000)
	LnSSG	2	16.0131 (0.4520)	D(LnSSG)	0	134.242 (0.0000)
Breitung t-stat Null: Presence of UR	LnGDPpc	1	0.74648 (0.7723)	D(LnGDPpc)	0	-12.5883 (0.0000)

	LnSSG	2	1.65077 (0.9506)	D(LnSSG)	0	-11.3794 (0.0000)

- Probability values are in brackets.

4.1 Cointegration Test for Panel Data

Findings from the residual cointegration test of Kao is presented in Table 3. The null hypothesis of no long-run relationship, i.e., no cointegration, cannot be accepted at 1% level of significance for the ASEAN countries. The JFP Cointegration (Table 4) Test rejects the null hypothesis of no cointegrating vector at 1% level of significance. The findings suggest that LnSSG and LnGDPpc have a long-term relationship, i.e., they are cointegrated with at most one cointegrating vectors.

Table 3: Residual Cointegration Test (Kao) Results

H_0 = *no cointegration*

	Statistic(t)	Pro.
ADF	-2.587692	0.0048
RV (Residual Variance)	0.004088	
HAC Variance	0.005703	

Table 4: JFP (ASEAN Countries) Test Results

Hypothesised No. of CE(s)	Fisher Stat.* (trace test)	Pro.	Fisher Stat.* (max-eigen test)	Pro.
None	55.39	0.000	44.87	0.0001
1(At most)	38.05	0.000	38.05	0.0015

*p-values of MacKinnon-Haug-Michelis (1999)

4.2 Pooled Mean Group ARDL

The long-run estimates using the pooled mean group ARDL model is presented in Table 5, and short-run estimates are in Table 6. They are based on the lowest Akaike Information Criterion (AIC). The long-run coefficient is significant at 1% level of significance, indicating that LnSSG has a long-term relationship with LnGDPpc. The estimates from Table 6 shows that the coefficient of the first difference term of LnSSG is positive (+) and statistically significant in explaining economic growth at 1% level of significance indicating that SSG certainly influences economic growth in the short-term. The coefficient of lagged error correction term ECT_{t-1} is significant at 1% level of significance. It is negative as per our a priori expectation indicating the

speed of adjustment towards long-run equilibrium when the system is exposed to a small shock. Error correction coefficient reveals that the short-run deviations in economic growth from long-run equilibrium are adjusted by 16% every year (Table 6). The significant individual country's short-run coefficients are shown in Table 6 (a) to Table 6(j). The estimates from Table 6(a) to Table 6(j) shows that the coefficient of the first difference term of LnSSG is positive (+) and statistically significant in explaining economic growth at 1% level of significance indicating that SSG certainly influences economic growth in the short-term. The coefficient of lagged error correction term ECT_{t-1} is significant at 1% level of significance. As per our a priori expectation, it is negative, indicating the speed of adjustment is towards long-run equilibrium.

Table 5: Long-term estimates ASEAN Countries

The dependent variable = natural logarithm GDP (per capita)

Regressor	*Coefficient*	*SE*	*Statistic(t)*
LnSSG	0.7034***	0.0466	15.0635

*** represents significance at 1% level, SE is standard Error.

Table 6: Short-run estimates ASEAN Countries

The dependent variable = natural logarithm GDP (per capita)

Regressor	*Coefficient*	*SE*	*Statistic(t)*
D(LnGDP(-1)	0.116885	0.103356	1.130893
D(SSG)	0.784627***	0.093598	8.382908
D(SSG(-1)	-0.041543	0.0089871	-0.462257
ECT_{t-1}	-0.162928***	0.034420	-4.733576

*** represents statistical significance at 1 percent level.

Table 6(a): Short-run estimates (Brunei)

The dependent variable = natural logarithm GDP (per capita)

Regressor	*Coefficient*	*SE*	*Statistic(t)*
D(LnGDP(-1)	-0.008660	0.018773	-0.461287
D(LnSSG)	1.160753***	0.016434	70.63215
D(LnSSG(-1)	-0.087470	0.041551	2.105141
ECT_{t-1}	-0.153820***	0.0030406	-50.50209

*** represents statistical significance at 1 percent level.

Table 6(b): Short run estimates (Cambodia)

The dependent variable = natural logarithm GDP (per capita)

Regressor	*Coefficient*	*SE*	*Statistic(t)*
D(LnGDP(-1)	0.495216	0.016365	30.26025
D(LnSSG)	0.582717***	0.004858	119.9474

D(LnSSG(-1)	-0.407931***	0.011184	-36.47456
ECT_{t-1}	-0.233033***	0.005400	-43.15819

*** represents statistical significance at 1 percent level.

Table 6(c): Short-run estimates (Indonesia)

The dependent variable = natural logarithm GDP (per capita)

Regressor	***Coefficient***	***SE***	***Statistic(t)***
D(LnGDP(-1)	0.2432***	0.01894	12.8388
D(LnSSG)	0.86540***	0.00150	574.8219
D(LnSSG(-1)	-0.23994***	0.01776	-13.5083
ECT_{t-1}	-0.0952***	0.00154	-61.4421

*** represents statistical significance at 1 percent level.

Table 6(d): Short-run estimates (Lao)

The dependent variable = natural logarithm GDP (per capita)

Regressor	***Coefficient***	***SE***	***Statistic(t)***
D(LnGDP(-1)	0.597769***	0.059609	10.02820
D(LnSSG)	0.298533***	0.013988	21.34138
D(LnSSG(-1)	-0.355296***	0.023681	-15.00328
ECT_{t-1}	-0.227399***	0.012862	-17.67972

*** represents statistical significance at 1 percent level.

Table 6(e): Short-run estimates (Malaysia)

The dependent variable = natural logarithm GDP (per capita)

Regressor	***Coefficient***	***SE***	***Statistic(t)***
D(LnGDP(-1)	-0.057216**	0.014174	-4.036762
D(LnSSG)	0.669966***	0.005975	112.1219
D(LnSSG(-1)	0.231079***	0.015622	14.79187
ECT_{t-1}	-0.297424***	0.004449	-66.84933

*** represents statistical significance at 1 percent level.

Table 6(f): Short-run estimates (Singapore)

The dependent variable = natural logarithm GDP (per capita)

Regressor	***Coefficient***	***SE***	***Statistic(t)***
D(LnGDP(-1)	-0.12856***	0.019901	-6.459932
D(LnSSG)	0.959440***	0.002291	418.7565
D(LnSSG(-1)	0.087789**	0.020038	4.381102
ECT_{t-1}	-0.05804***	0.000739	-78.52357

*** represents statistical significance at 1 percent level.

Table 6(g): Short-run estimates (Thailand)

The dependent variable = natural logarithm GDP (per capita)

Regressor	*Coefficient*	*SE*	*Statistic(t)*
D(LnGDP(-1)	-0.150855***	0.018843	-8.005814
D(LnSSG)	0.809970***	0.005037	160.8067
D(LnSSG(-1)	0.210125***	0.018323	11.46797
ECT_{t-1}	-0.218501***	0.004322	-50.55259

*** represents statistical significance at 1 percent level.

Table 6(h): Short-run estimates (Vietnam)

The dependent variable = natural logarithm GDP (per capita)

Regressor	*Coefficient*	*SE*	*Statistic(t)*
D(LnGDP(-1)	-0.055904	0.022554	-2.478687
D(LnSSG)	0.930209***	0.002355	395.0315
D(LnSSG(-1)	0.054410	0.020898	2.603614
ECT_{t-1}	-0.020018***	0.001424	-14.05439

*** represents statistical significance at 1 percent level.

Table 6(i): Short-run estimates (Philippines)

The dependent variable = natural logarithm GDP (per capita)

Regressor	*Coefficient*	*SE*	*Statistic(t)*
D(LnGDP(-1)	0.2181143***	0.020737	10.51941
D(LnSSG)	1.0643363***	0.001664	639.7062
D(LnSSG(-1)	-0.243263***	0.023086	-10.53744
ECT_{t-1}	0.022299***	0.00000	481.3847

*** represents statistical significance at 1 percent level.

Table 6(j): Short-run estimates (Myanmar)

The dependent variable = natural logarithm GDP (per capita)

Regressor	*Coefficient*	*SE*	*Statistic(t)*
D(LnGDP(-1)	0.148327***	0.019749	7.510768
D(LnSSG)	0.977247***	0.000962	1015.930
D(LnSSG(-1)	-0.203326***	0.018829	-10.79831
ECT_{t-1}	0.002443***	0.0000	407.7998

*** represents statistical significance at 1 percent level.

4.3 Ordinary Least Square (OLS) Model (FMOLS/ DOLS) Results

After the long-run relationship between the variables is recognised, the long-run elasticity of the effect of LnSSG on LnGDPpc is examined. The long-run estimators from FMOLS and DOLS models are reported in Table 7 for the ASEAN countries. We observe that a 1% rise in LnSSG increases LnGDPpc by around 0.74% according to FMOLS. We also observe that a 1% increase in LnSSG increases LnGDPpc by 0.75 - 0.78% according to DOLS.

Table 7: Panel (long- run) estimators for ASEAN Countries

Dependent variable: LnGDPpc	FMOLS (Pooled)	FMOLS (Grouped)	DOLS (Pooled)	DOLS (Grouped)
LnSSG	0.7341 (0.0004)	0.7399 (0.0009)	0.7754 (0.0000)	0.7493 (0.0000)

(.) are the respective p-values.

The above results highlight that in the case of ASEAN economies, service-sector growth does play a prominent role in explaining economic growth.

CONCLUSIONS

The results of the panel cointegration(long-run) tests and pooled mean group ARDL model supports a long-run association amongst SSG and economic growth of the ASEAN economies. The above results reveal that SSG affects economic growth both in the long- and short-run at 1% level of significance in ASEAN. Any disequilibrium caused by shock to SSG of any ASEAN economy adjusts to maintain long-term equilibrium relationship. It may however be noted that the findings could be sensitive to the selection of the measure of economic growth (GDPpc in USD in this case) used in the analysis

The short-run coefficients confirm the role of SSG in contributing to the ASEAN economies' economic growth. This cross-country study also provides useful insights into the role of SS growth in ASEAN countries' per capita economic growth. The results support the notion that superior support should be given to SSG in ASEAN in terms of policy reforms and infrastructure investment. Efforts should be directed to identify the drivers of such growth. The growing financial services market, which has shown tremendous success by increasing the usage of banking services, fintech and ongoing ASEAN integration, is one such growth engine.

Overall results show that growth in the services sector led to GDP growth in ASEAN in the past. Services are likely to play an even bigger role in the future as the rapidly growing region grows wealthier, and services begin to become more important as income levels increase. Regional integration has increased over the years through trade in goods and services under the AEC idea. Additional benefits under such integration can be accomplished by combining such policy fields, including tourism, infrastructure and consumer protection, in order to facilitate inclusive and sustainable growth throughout the region. To mitigate the risks posed by the liberalisation of financial services, ASEAN members should set preconditions for easing market entry. Findings provide support for measures like the integration of ASEAN financial systems, reduction of the trading cost, removing barriers to cross border trade to enhance services growth.

The AEC is a major step in this direction, but much more is required for ASEAN to cope with future challenges. Even during the COVID 19 recovery period, the contribution of the service sector to economic growth is expected to be important, as growth in the service sector plays a key role in increasing productivity, efficiency and effectiveness in the overall economy. Its relationship with economic growth has been consistent through similar recovery phases, such as recovery from the global financial crisis.

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