Services Exports and Economic Growth in Sri Lanka: An Anatomy of GDP Components

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Abstract:

This study examines the causality relationship not only between services exports and overall GDP but also between services exports and GDP components, using annual time series data of Sri Lanka from 1981 to 2013. The results show that (1) export-led growth hypothesis holds for services exports of Sri Lanka, and (2) there exist unidirectional causality from services exports to household consumption, feedback effect of services exports on the gross capital formation and unidirectional causality from government expenditure to services exports. The causality channel of services exports causing economic growth via gross capital formation is empirically supporting current economic growth theory. Therefore, a successful and sustained economic growth for Sri Lanka needs more allocation of earning from services exports towards the gross capital formation.

Keywords: Export-led growth hypothesis, services export-led growth, economic growth, Toda-Yamamoto approach

JELL CLASSIFICATION: F100, F130, F140

1.   Introduction

Generally, exports are considered as one of the major driving forces of long-run (LR) economic growth. Both theoretical and empirical investigations over the past decades have been extensively examined the above relationship focusing on aggregate level exports, particularly, goods exports. Empirical literature evidenced three types of the direction of causality between exports and economic growth. (1) export-led growth hypothesis (ELGH). ELGH assumes that the relationship between exports and economic growth is positive and thereby higher the exports is higher the economic growth. Growth theory argues that the expansion of export as a determinant of economic growth. Vohra (2001), Herzer et al. (2006), Jordaan and Eita (2007), Narayan et al. (2007), Sahni and Atri (2012), and Bashir et al. (2015) among others found empirical supports for ELGH. (2) growth-led export hypothesis (GLEH), which argues the expansion of economic growth leads the exports. Economic growth implies the technological advancement in the production as well as the more competitive power of domestic goods in the international market. Hence exports are promoted by economic growth (Jin, 2002; Vernon, 1966). This hypothesis also was supported by many empirical studies such as Iqbal et al. (2012), Alimi and Muse (2013), Shihab et al. (2014), and Gokmenoglu et al. (2015). (3) bi-directional/contemporaneous causality. Helpman and Krugman (1985) argued about feedback relationship; perhaps their argument is a combination of both ELGH and GLEH, says that exports promote economic growth, and then economic growth leads export. Shan and Sun (1998a), Shan and Sun (1999), and Tsen (2010) found empirical supports for bi-directional causality.

Exports are vital for long-term economic growth from the demand side. Higher exports mean higher demand for the domestically produced goods and services from rest of the world. Persistent growth of demand is essential for economic growth. However, such growth in demand cannot be continued as the domestic market is subject to be quickly exhausted (Tsen, 2010). Even though the economic growth occurs as a result of increasing domestic demand, it may quickly terminated (Tsen, 2010). This argument is particularly valid for a small open economy like Sri Lanka, having a small domestic market about 20 million population. Further, exports can be considered as major sources of long-run economic growth through provision of foreign exchange. The availability of foreign exchange may lead to long-run economic growth in two ways. (1) imports of capital goods which will lead for capital formation and increase the efficiency. (2) imports of high-quality raw materials which are important in the production process. Therefore, exports contribute to the long-run economic growth increasing both the income and demand (Agosin, 1999).

Presently, services exports (SEXP) are becoming an important branch of global trade as the counterpart of the goods trade. From 2004 to 2013, world trade in services has been increased by many folds (from 2 to 5 trillion US$) while SEXP accounts for 60% (3 trillion US$) of the total (UNCTAD, 2015). Further, trade in commercial services have been reached to 20% of global trade in goods and services (WTO, 2014). White et al. (2013) showed that convincing the economic transformation process; there is more space for the growth of SEXP. Javalgi and White (2002) and Samiee (1999) pointed out that services trade in the global market performs better than merchandise exports (MERXP). Further, to treat SEXP as same as MEREXP in the worldwide trade, the WTO had created General Agreement on Trade in Services (GATS) in 1995.

Considering the period from 1950 to 2015 in the Sri Lankan economy, GDP share of agriculture reduced from 46.3% to 8.1%, industrial sector increased from 19.6% to 28.5%. Service sector shows a rapid growth during the referenced period, and the increase is from 36.9% to 56.3%. The transformation in Sri Lankan economy into service sector also occurred in the labour market, occupying about 45% of the workforce (World Development Indicators). Services trade in Sri Lanka's economy is becoming important with an increasing trend. SEXP in Sri Lanka stands at 7% of GDP by 2013. SEXP of Sri Lanka play an important role in the world market than that of goods exports. During the period from 2000 to 2015, Sri Lanka's share of merchandise exports in the world market declined by 24.6% while the share of services exports rapidly increased by 114.9% (Athukorala et al. 2017). About 80% of total services exports in Sri Lanka accounts for three main services categories such as transport services, travel services, and other business services. Sri Lanka also has more potential for services exporting especially in transportation, travel and tourism, health, financial, business, IT and legal services with Belt and Road Initiatives (BRI).

The current study purposes to investigate the relationship between not only SEXP and overall economic growth, but also SEXP and components of GDP in Sri Lanka. The novelty of this paper has two folds. (1) this study explores the SEXP-economic growth relationship in Sri Lanka. Given the increasing importance of SEXP, only few studies attempted to find how it influences on economic growth. Therefore, there is tremendous scope to investigate how this relationship holds in different countries in the world. Sri Lanka adopted with liberalization policies in the late 1970s, but the economy could not achieve expected results from open door policies. Over the period, Sri Lanka was facing the problem of balance of payment (BOP), however, SEXP as a new wave of international trade may essential to get rid of such problems. (2) the common limitation of available literature is that they all considered about the influence of SEXP on overall GDP growth. According to the national account identity, GDP is a combination of different components. Up to date, no study to find the relationship between services exports and major components of GDP. The evidence of services exports-led growth, which obtained as the causality between services exports, and overall economic growth may not provide clear direction for policy formulation to increase the economic prosperity via services exports.

1.1 Significance and objectives

Policymakers are interested in adopting ELGH as the most critical and significant driver in long-run economic growth. The majority of available empirical studies have been examined the ELGH at aggregate/macro level exports. Results from such analysis, however, do not imply that every category of exports is promoting economic growth. In such a situation, policymakers may face with the problem of allocating the limited resources on exports promotion. On the other hand, some categories of exports may significantly promote economic growth; such relationship may not be detected at the aggregate level of exports analysis, hence, may come up with false conclusions (Ghatak et al. 1997). For instance, Bahmani-oskooee (1991), Love and Chandra (2004), and Shirazi and Manap (2005) found no causality between aggregate level exports and economic growth in Sri Lanka. Further, Moosa (1999) for Australia and Hatemi-j and Irandoust (2000) for Greece and Turkey also have come up with the same conclusion. If these types of findings guide to policy-makers, they are wrong to do so. Some scholars, digging the exports, have come up with interesting conclusions. For example, Abu-qarn and Abu-bader (2004), Herzer et al. (2006) and Rangasamy (2009).

As it was shown above, some authors have concluded that there is no causal relationship between aggregate exports and economic growth in Sri Lanka. Further, since adoption with open door policies, Sri Lanka is facing with the serious problem of balance of payment in goods trade, while the surplus in services trade has become a recent phenomenon. Therefore, this study is significant to understand if and how services exports influence on economic growth in Sri Lanka. Thus, two objectives are to be achieved through this study as follows.

[1] Is the wisdom of ELGH indeed hold in the case of services exports in Sri Lanka? To further explained, is there empirical evidence for services exports-led growth hypothesis (SELGH) in Sri Lanka

[2] If SELGH holds, which components of GDP is causing?

The reminder of this paper progresses as follows. Section two provides a brief review of the literature on services exports and economic growth. Section three constructs the econometric model and explains the data used in the analysis. Section four presents the empirical results. Section five makes a diagnostic analysis of the estimated model, and section six is for conclusions.

2.   Literature Review

The evolution of SEXP has been grabbed the attention of researchers to investigate how it influences on the overall economy. It is worthy of noting such macro-level analysis here. Gabriele (2006), examining the association between SEXP and economic growth in 114 countries found a positive association between the two variables in developing countries. Another significant finding was that the relationship is weaker in developing countries compared to developed countries. Further, it was observed that the impact of exports on economic growth had generally been declined when the results obtained through different sub-periods. At the same time, the author found that such decline is mainly from MERXP rather than SEXP. Through this, the author empirically witnessed that SEXP performs better than MERXP. This study clearly showed that the growth-enhancing effect of exports might hold not only at the aggregate level but also at the disaggregate level or particular component. Further, the relationship may differ with countries' level of development and country-specific factors. Dash and Parida (2012) analyzed the impact of both exports and imports of services in Indian economic growth. Compared to the Gabriele (2006), this study focused on a single country, however, analyzed quarterly time series data (Q1:1996/97 to Q1:2010/11) applying time series technique such as ARDL, VECM, Granger causality and impulse response analysis. This study prevented the endogeneity problem by defining the GDP net of exports and examined the effect of services exports on non-exports GDP. The study found a long-run relationship among economic growth, services exports, services imports and real exchange rate. The long-run coefficient of services exports on economic growth was estimated as 0.57. The study found the direction of causation from services exports to economic growth.

Debnath, Roy et al. (2014) also investigated the services exports-economic growth relationship in India. This study has accounted theoretical aspect of ELGH; services exports-productivity relationship. Taking a different route, this study included various elements of exports such as total exports (TEXP), MERXP and SEXP. The most significant finding of this study was that TEXP did not have any significant impact on total factor productivity; however, they found the productivity-enhancing effect of services exports. A similar study of Debnath, Lakshar et al. (2014) incorporated a vast range of exports categories such as TEXP, MERXP, SEXP, manufacturing exports, primary exports, and oil exports in their analysis. These authors also found that TEXP and MERXP did not have an impact on economic growth, while services exports positively influence economic growth. These two studies show us to open new eyes looking in different ways on the traditional wisdom of ELGH; it would better look at the phenomenon at desegregate level. Francois and Reinert (1996), in the across-country analysis in 15 OECD countries found services exports have become an essential part of exports with the stage of development. One of the significant findings of this study was that when a nation transforms to higher income country, services such as commercial, trade, transports, and telecommunication become important exportable components.

The other group of studies found the importance of service trade liberalization on economic growth. The study by Mattoo et al. (2006) constructed two openness indicators for two major services categories, i.e., telecommunication and financial services to measure how the trade openness of these two sectors impact on overall economic growth. These authors found that countries having fully liberalized telecommunication and financial sectors are growing at 1.5% faster than the other states. Francois and Wooton (2007) identified a different channel of services trade liberalization on economic growth. Their finding was that increased competition in the services sector impact on economic growth via increasing the goods trade, especially in small/ developing countries.

3. Data and Methodology

3.1 Data Sources and Treatment

This study includes seven variables namely GDP per capita (PCGDP), household consumption (C), gross capital formation (GCF), goods exports (GOODX), exports of top 3 services (SX), and terms of trade index (TOT). Exports values are deflated by GDP deflator (Rahman and Mustafa 1997). GDP per capita is in US\$. Except for terms of trade index, all other variables are in million US\$. The data were gathered from UNCTAD database, World Development Indicators (WDI), Key indicators of Asian Development Bank, Central Bank of Sri Lanka and the data covered from 1981 to 2013. Variables were converted into log form.

3.2 Methodology

3.2.1 Model Specification

The growth model in equation (1) constructs to test the causality between services exports and economic growth in the long-run. The basic ideas for the econometric model specification are taken from Dhawan and Biswal (1999), Jin (2002), Tsen (2010) and Henriques and Sadorsky (1996). The causality relationship between exports and economic growth is complex due to various reasons; one such reason is the a fluctuation of international prices. International price competitiveness is the reflection of the variation of the real exchange rate and trade policies such as tariffs and non-tariffs barriers (Henriques and Sadorsky 1996). This study includes terms of trade to control the international price fluctuations. Since Sri Lanka is a small economy, terms of trade is an essential variable in explaining the relationship between exports (goods exports and services exports) and economic growth.

$$PCGDP_t = f(C_t, GCF_t, G_t, SX_t, GOODX_t, TOT_t) \qquad (1)$$

3.2.2 Unit Root Test

Generally, economic time series variable shows scholastic trending behaviour. For instance, a time series might exhibit a prolonged period of increasing followed by prolong period of decreasing. In another word, time series data has unit root problem. In this analysis, identification of the order of integration is required to determine the maximum order of integration (d_{max}) in Toda-Yamamoto procedure of Granger non-causality. There are number of test to detect the unit root properties in a time series and determine the order of integration. This study performs Augmented Dickey-Fuller (ADF) unit root test to find whether the series is integrated at levels $I(0)$ or first difference $I(1)$ or second difference $I(2)$.

3.2.3 Granger Causality Test

This study examines the direction of causality through applying Toda and Yamamoto (1995) procedure for the Granger causality test. This approach has superior features because it can be applied regardless of the order of integration and cointegration (Amiri and Ventelou 2012). To apply the Toda and Yamamoto approach, information about lag length and maximum order of integration is sufficient. As proposed by Toda and Yamamoto (1995), modified WALD (MWALD) test is used to find the presence of causality. MWALD is obtained in the framework of the augmented VAR system as VAR(k+d_{max}), where k is the lag length, and d_{max} is the maximum order of integration. Optimal lags for the model is determined by applying AIC, FPE, LR, HQ and SC criterions while ADF test is utilized to determine the maximum order of integration. The testing procedure of the null hypothesis in the Toda and Yamamoto approach is summarized as follows (Amiri and Ventelou, 2012; Katırcıoglu., 2018; Wolde-rufael, 2006).

$$Y_t = \beta_0 + \sum_{i=1}^{k} \beta_{1i} Y_{,t-i} + \sum_{j=k+1}^{dmax} \beta_{2j} Y_{t-j} + \sum_{i=1}^{k} \gamma_{1i} X_{t-i} + \sum_{j=k+1}^{dmax} \gamma_{2j} X_{t-j} + \varepsilon_{1t} \qquad (2)$$

$$X_t = \gamma_0 + \sum_{i=1}^{k} \gamma_{1i} X_{t-i} + \sum_{j=k+1}^{dmax} \gamma_{2j} X_{t-j} + \sum_{i=1}^{k} \delta_{1i} Y_{,t-i} + \sum_{j=k+1}^{dmax} \delta_{2j} Y_{t-j} + \varepsilon_{2t} \qquad (3)$$

4. Empirical Results

4.1 Results of Unit Root Analysis

The results are shown in Table 1 below. The results indicate that TOT is $I(2)$ while all other variables are I(1). Based on these results, in the Toda and Yamamoto (1995) procedure, the maximum order of integration is considered as two (d_{max}=2).

Table 1. ADF Unit root test

Variable	Levels		1st Difference		2nd Difference		Order of Integration
	C	C & T	C	C & T	C	C & T	
LPCGDP	2.968	-0.644	-3.879*	-4.684*	-5.193*	-5.057*	$I(1)$
LC	0.734	-1.904	-6.203*	-6.274*	-3.395**	-3.347***	$I(1)$
LGCF	2.372	-1.050	-4.690*	-4.988*	-3.920*	-3.672**	$I(1)$
LG	-0.210	-3.073	-7.794*	-7.748*	-6.490*	-6.427*	$I(1)$
LSX	-0.648	-2.687	-5.567*	-3.628**	-3.485**	-3.448***	$I(1)$
LGOODX	-0.977	-2.458	-6.220*	-3.553***	-3.397**	-3.468***	$I(1)$
LTOT	-2.802***	-3.162	-2.908***	-2.956	-3.680**	-3.780***	$I(2)$

Note: i. C= constant, C&T=constant & trend. ii. ADF unit root test is performed with the AIC criterion, and the automatic lag selection is set as 7 lags. iii (*) , (**) and (***) are rejection of null hypothesis at 1%, 5% and 10% significant levels respectively.

4.2 Long-Run Granger Causality Analysis

4.2.1 Services Exports and Overall Economic Growth (PCGDP)

Table 2 depicts the Granger non-causality test results based on Toda-Yamamoto (1995) approach. This study first attempts to find the causal relationship between services exports and GDP per capita. Therefore, **the most important null hypothesis of this study is "LSX does not Granger course LPCGDP."** The result shows that rejection of null hypothesis at 1% significant level, which implies a unidirectional causality running from services exports to GDP per capita. In other words, it **finds strong evidence for export-led growth hypotheses (ELGH) in the case of services exports in Sri Lanka.** However, the converse is not true and accept the null hypothesis of **"LPCGDP does not cause LSX".** There are two possible explanation for this finding. (1) Open policies for services trade. Sri Lanka, with the auspicious of being a founding member of WTO, liberalized the services trade with GATTS commitments and gradually adopted with open policies for services trade (WTO 2004). The switch to the out-ward oriented services trade policies, reducing the degree of protection, implies the strong link between domestic economy as well as the world market. Hence the causal link between services exports and GDP is possibly detected in the data. (2) the structure of services exports. The average contribution of services exports to TEXP in Sri Lanka accounted for 19.77%. Sri Lanka has long experienced widening the deficit of current account due to an increase in the deficit from goods trade. The surplus of services trade is one of primary sources that offset the deficit. Theoretically, foreign exchange earnings via exports can be used to import capital goods and other input required in the production (Kugler, 1991; McKinnon, 1964; Riezman, Whiteman, & Summers, 1996). Hence, services exports via generating a surplus can be a better player in economic growth in Sri Lanka. . More importantly, earning from tourism services in Sri Lanka has become the third largest foreign exchange earner next to the workers' remittances and garments exports. Sri Lanka shares 0.13% of total tourist arrival and 0.2% of total tourist earning in the world. The contribution of travel and tourism sector of Sri Lanka to the GDP and employment is above the world and Asia Pacific averages (Central Bank of Sri Lanka, 2015). These explanations reveal that services exports can be a better driver of the growth of Sri Lanka.

4.2.2 Services Exports and GDP Components

Similarly, **the two null hypothesis of "LGOODX does not Granger cause LPCGDP" and "LTOT does not Granger cause LPCGDP"** are also rejected at 1% and 5% level respectively. It implies that unidirectional causality from goods exports to economic growth, and from terms of trade to economic growth. This study empirically supports for the general knowledge on the relationship between gross capital formation and economic growth and reject the **null hypothesis of "LGCF does not Granger cause LPCGD"** at 5% level. This indicates unidirectional causality from gross capital formation to economic growth. Further, the study found unidirectional causality from LG to LSX, LGOODX, and LTOT. However, the study does not find any causality between household consumption and GDP per capita.

To this end, the study finds empirical support for services exports-led growth hypothesis for Sri Lanka. Hence, the next step proceeds to discover which component of GDP is caused by the services exports. The result shows two significant causal relationships. (1) **The null hypothesis of "LSX does not Granger cause LC"** is rejected at 10% level implying a unidirectional causality from services exports to household consumption. This finding confirms that earnings from exports play as one of the main sources of household consumption in Sri Lanka. (2) Both **the null of "LSX does not Granger cause LGCF"** and **"LGFC does not Granger cause LSX"** are rejected significantly and established contemporaneous causality between services exports and gross fixed capital formation. Further, there is unidirectional causality from LGOODX to LGCF. It also finds unidirectional causality from LTOT to LGFC and LTOT to LC. More information about dynamic relationship between the variables is provided in the figure 1.

Table 2. Long run Granger causality test result

Dependent Variable	Sources of Causality						
	LPCGDP	**LC**	**LGFC**	**LG**	**LSX**	**LGOODX**	**LTOT**
LPCGDP	-	0.113048	4.383358[b]	0.837572	8.012754[a]	7.510158[a]	5.107796[b]
LC	0.174207	-	0.181113	0.204589	3.813745[c]	2.088515	10.71839[a]
LGFC	0.076179	0.125467	-	0.645357	8.716817[a]	6.162148[b]	7.392382[a]
LG	6.051799[b]	2.999920[c]	2.239845	-	1.257006	0.084481	1.922423
LSX	0.026538	1.618857	2.894547[c]	2.931255[c]	-	1.769270	0.211301
LGOODX	0.060437	1.369436	2.497592	3.644264[b]	2.690202	-	0.123947
LTOT	0.291867	0.016134	0.962035	2.770372[c]	4.987362[b]	5.106855[b]	-

(a), (b) and (c) indicates significant at 1%, 5% and 10% level respectively

Figure 1 below summarizes the dynamic relationship between services exports and economic growth and between services exports and components of GDP.
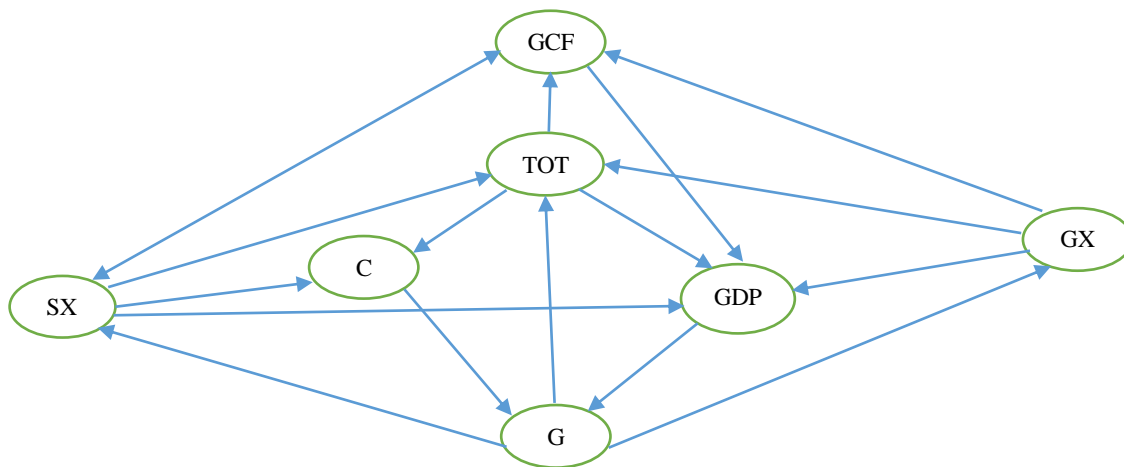

Figure 1: The complex relationship between services exports, and components of GDP

Note: SX=services exports, GDP=PCGDP, GX=goods exports

Bi-directional causality   **Unidirectional causality**

4.3   Generalized Impulse Response Function Analysis

4.3.1 Generalized Impulse Response Analysis of Overall Economic Growth (PCGDP)

The above Granger causality analysis by applying the Toda-Yamamoto procedure provides long-run causality among the targeted variable. Nevertheless, the results of Granger causality analysis do not explain how the is variable of concern response to the changes in another variable. Impulse response analysis describes how one variable response to the innovation of the other variable. Generalized impulse response function analysis introduced by Koop et al. (1996) developed measures of shock persistence and the asymmetric effect of shock. Pesaran and Shin (1998) proposed the generalized impulse response function in unrestricted VAR and co-integrated VAR models. Unlike the traditional approach of impulse response analysis, Pesaran and Shin approach invariants with the ordering of variables in the VAR system and overcomes the orthogonality problems Pesaran and Shin (1998). This analysis employs generalized impulse response analysis to confirm the response of LPCGDP to innovation in independent variables. It also focuses on the response of household consumption and gross capital formation to the shock in services exports.

Figure 2 below shows the impulse response graphs of LPCGDP to changes in independent variables, i.e. LC, LGCF, LG, LSX, LGOODX, and LTOT. A one standard deviation innovation in the household consumption has a positive effect and steady over the period. The shocks into the

gross capital formation have an initial positive impact on LPCGDP and die out after the second horizon. The innovation to the services exports and goods exports is identical and show the initial positive effect on LPCGDP, and the persistence of effect is up to the six periods. Further, the impact of services exports is slightly larger than that of goods exports.
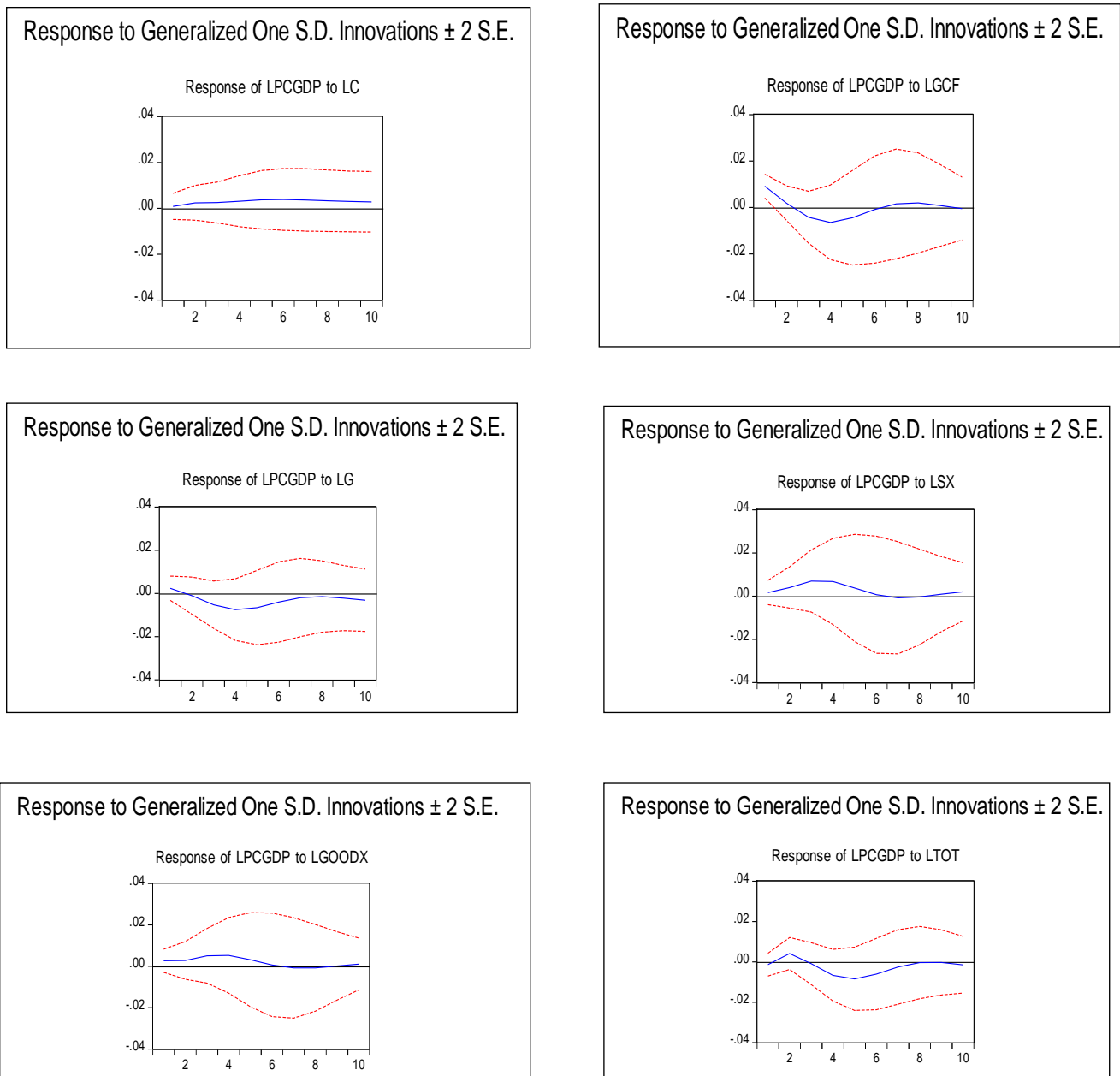

Fig 2: Generalized impulse responses of LPCGDP to innovation in independent variables.

4.3.2 Generalized Impulse Response Analysis of GDP Components on Services Exports

Figure 3 shows, how household consumption and gross capital formation response to one standard deviation shock in the services exports. In both cases (LC and LGCF), the initial impact is negative, but produce cumulative positive effect and become positive from second to fifth (LC) and sixth (LGCF) horizons. The possible explanation is that exports take a share of GDP out that would have to allocate for household consumption and gross capital in the first year. However, once export is completed, the earnings from exports utilize for household consumption from second to the fifth horizon and for gross capital formation from the second to the sixth horizon.
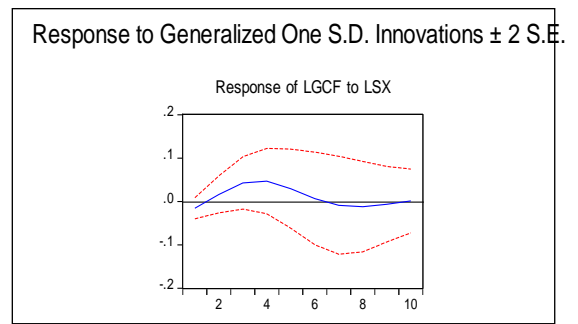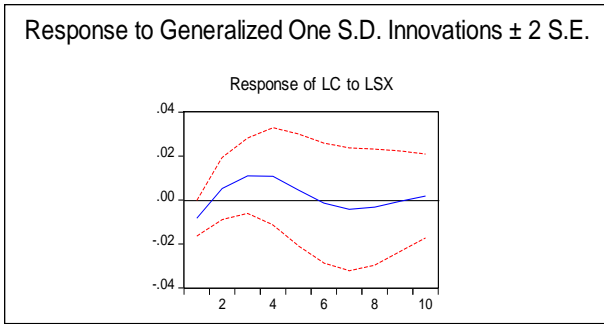
Fig 3: Generalized impulse response of LC and LGCF to innovation in LSX

4.3.3 Generalized Impulse Response Analysis of Services Exports on the Gross Capital Formation and Government Expenditure

Figure 4 shows how the services exports response to the shock of the gross capital formation and government expenditure. Response of services exports to changes in both gross capital formation and government expenditure is identical. One standard deviation of innovation to gross capital formation initially generates a negative impact on the services exports, which persists for five years, and the effect becomes positive from the sixth year. To explain this, more allocation to the gross capital formation is the lesser share for exports. Hence, the initial impact on services export may negative. On the other hand, benefit from gross capital formation on services exports is a long-run phenomenon rather than short-run. The response of services exports to one standard deviation shock in government expenditure also provide an initial adverse effect to the services exports, and it dies out after fifth year giving positive effect afterward.
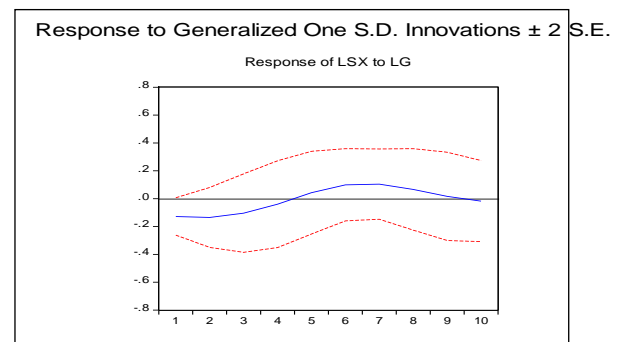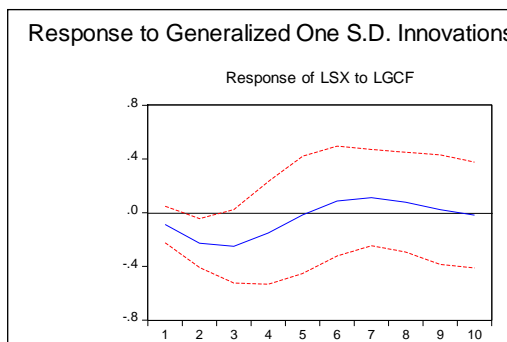

Fig 4: Generalized impulse response of LSX in innovation to the LGCF and LG

5. Diagnostic Analysis

In this analysis, inverted roots of the estimated model are strictly inside the unit circle that implies the model is dynamically stable (Figure 5). The model also does not suffer from serial correlation problem at 5% significant level (p=0.0907 at 1 lag)). VAR heteroscedasticity test accepts the null of no cross terms in the residuals that indicates the model is homoscedastic (Table 3). The model also passes the residual normality test (Table3).
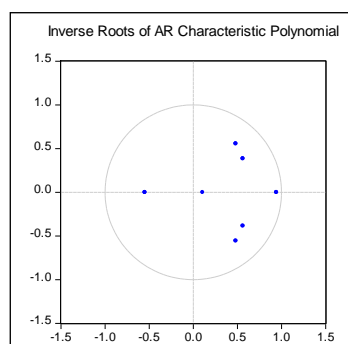
Fig 5: VAR stability

Table 3. Residual normality test and Heteroscedasticity test

Description	Chi-sq (joint)	P-value
Skewness	1.808982	0.9697
Kurtosis	3.187555	0.8671
Junque-Bera	4.996538	0.9859
Heteroscedasticity Test	810.7634	0.2466

6.   Conclusion

This study employs Granger non-causality test developed by Toda and Yamamoto (1995) to investigate the causality between services exports and GDP per capita and also between GDP components in Sri Lanka for the period from 1981-2013. Generalized impulse response analysis is also performed to find the response of variable concerns to the innovation of other variables. The findings indicate that causality running from services exports to economic growth, however, the converse is not true. Similarly, gross fixed capital formation, goods exports and terms of trade are important in economic growth in Sri Lanka and find unidirectional causality from these variables to economic growth. The analysis further investigates causality relationship between services exports and three major components of GDP, i.e. C, GCF and G. The findings indicate that unidirectional causality from SEXP to C, bidirectional causality between SEXP and GCF and unidirectional causality from G to SEXP. The most important and complete causality channel identified in this study is that G causes SEXP, then SEXP cause GCF and finally GCF causes GDP. These findings confirm that the transformation of Sri Lanka's economy into the service-based economy is reflected in the international trade. Hence, Sri Lanka needs policies, promoting and encouraging services exports and utilize the earning from SEXP for investment in enhancing long-run economic growth. Therefore, it would argue that testing of export-led growth hypothesis should follow more specific and anatomical approach rather than in general so that easy for policy directions.

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خدمات الصادرات والنمو الاقتصادي في سريلانكا: تشريح مكونات الناتج المحلي الإجمالي

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الملخص:

تبحث هذه الدراسة العلاقة السببية ليس فقط بين صادرات الخدمات والناتج المحلي الإجمالي ولكن أيضا بين صادرات الخدمات ومكونات الناتج المحلي الإجمالي، وذلك باستخدام بيانات السلاسل الزمنية السنوية لسريلانكا من عام ١٩٨١ إلى عام ٢٠١٣. وتظهر النتائج أن (١) فرضية النمو التي تقوده الصادرات صادرات الخدمات في سريلانكا، و (٢) وجود سببية أحادية الاتجاه من صادرات الخدمات إلى الاستهلاك المنزلي، وتأثير التغذية المرتجعة لصادرات الخدمات على تكوين رأس المال الإجمالي والسببية أحادية الاتجاه من الإنفاق الحكومي إلى صادرات الخدمات. إن القناة السببية لصادرات الخدمات التي تسبب النمو الاقتصادي من خلال تكوين رأس المال الإجمالي تدعم نظرية النمو الاقتصادي الحالية تجريبيا. لذلك، يحتاج النمو الاقتصادي الناجح والمستدام لسريلانكا إلى المزيد من توزيع الأرباح من صادرات الخدمات نحو تكوين رأس المال الإجمالي.

الكلمات المفتاحية: فرضية النمو التي تقودها الصادرات، نمو الخدمات التي تقودها الصادرات، النمو الاقتصادي، نهج -Toda Yamamoto