
EMPIRICAL ANALYSIS OF EXPORT-LED GROWTH AND DOMESTIC DEMAND-LED GROWTH HYPOTHESES IN EAST ASIA

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Abstract

The purpose of this study to compare export-led growth (ELG) and domestic demand-led growth (DLG) hypotheses in East Asia during 1983-2015 with dynamic panel data analysis. Export-led growth strategy lost in time its fame in Asia after the economic crisis and policy makers put in practice some solution packages and tried to move on another growth strategy (DLG) which does not depend only foreign demand. The second generation unit root, co-integration and causality tests have been used at the empirical part and long term coefficients calculated with CCE model (Pesaran, 2006) individually. According to estimated long term coefficients for each country; in Hong Kong and Singapore export-led growth hypothesis is dominant but in Macau and South Korea domestic demand led growth is strictly speaking. Net export and domestic demand contributes to economic growth together in Japan and economic growth coefficient of Japan is bigger than the others. The key of the sustainable growth is to have a good combination of ELG and DLG hypotheses.

Keywords: Export, domestic demand, panel data analysis, East Asia.

Jel Classification: O4, F1, C5.

DOĞU ASYA'DA İHRACATA DAYALI BÜYÜME VE İÇ TALEP ÇEKİŞLİ BÜYÜME HİPOTEZLERİNİN AMPİRİK ANALİZİ

Öz

Çalışmada Doğu Asya ülkelerinde ihracata dayalı büyüme hipotezi (ELG) ve iç talep çekişli büyüme hipotezi (DLG) 1983-2015 dönemi için dinamik panel veri analiz yöntemi ile test edilmiştir. ELG hipotezi ekonomik kriz sonrası zamanla Asya'da popülerliğini yitirmiş ve politika yapıcılar yabancı talebe bağımlı olmayan başka bir büyüme hipotezini (DLG) çözüm önerisi olarak uygulamaya koymuşlardır. İkinci nesil birim kök, eş-bütünleşme ve nedensellik testlerinin kullanıldığı ekonometrik modelde uzun dönem katsayıları Pesaran (2006) tarafından geliştirilen CCE modeli ile her bir ülke için ayrı ayrı hesaplanmıştır. Elde edilen uygulama sonuçlarına göre; Hong Kong ve Singapur'da ihracat dayalı büyüme hipotezi kabul edilirken Güney Kore ile Makao'da iç talep çekişli büyüme hipotezi dominanttır. Japonya'da net ihracat ve iç talep, ekonomik büyümeye birlikte katkı yapmaktadır. Bu nedenle Japonya'nın ekonomik büyüme katsayısı diğerlerinden daha büyüktür. Sürdürülebilir büyümenin anahtarı ELG ve DLG hipotezlerini birlikte içeren bir politika uygulamaktan geçmektedir.

Anahtar Kelimeler: İhracat, iç talep, panel veri analizi, Doğu Asya.

Jel Kodu: O4, F1, C5.

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1. Introduction

There are many studies about trade and growth in the literature. The growth strategies or hypotheses are named according to the direction of the relationship between growth and trade. If the direction of the relationship is from export to growth it is called export-led growth; domestic demand to growth it is called domestic-demand led growth; growth to trade it is called growth driven trade strategies. In addition, some studies claim that there is no relationship between trade and growth or there is a feedback relationship between them. This paper aims to compare ELG and DLG hypotheses for East Asian countries to understand which one is better for their economic growth or which one contributes more to the growth. Not too many researchers compared and recommended policies at the same time for these two hypotheses and the selected time period is quite longer compared to the other existed researches in the literature. Also second generation non-stationary panel data analysis has been preferred for empirical part of the study to consider heterogeneity of variables and cross-sectional dependence between units. Firstly, ELG hypothesis and its success explained but in time another hypothesis came out which fits more to Asian countries' economies. This is why just after the criticism of ELG the superiority of DLG has discussed. But in the end, it has seen that the key of sustainable growth rate is a mix of ELG and DLG hypotheses.

The Theoretical Background of ELG and DLG Hypotheses

During the 1970's import substitution policy has been left and export-led growth hypothesis (ELG) has adopted which targets foreigner markets (demand) and growth productivity. There was a consensus about trade openness at the end of 1970's and ELG became so popular with the success of Japan and Asian Tigers during 1970-1996. It reinforced with the fast economic growth of Singapore, Hong Kong, Taiwan and South Korea. After that International Monetary Fund (IMF) proposed that hypothesis (de facto) to different countries as a policy tool but world growth rate slowed down especially in less developed countries (LDEs).

Thomas Palley (2011), claims that ELG hypothesis is not related with developing or emerging economies anymore. Because of those countries adopt this hypothesis according to their current conditions and he emphasizes ELG which depends on foreign direct investments (FDI) and export should replace with domestic demand-led growth hypothesis (DLG). ELG is for developed and industrialized countries and manipulated by not only globalization but also world-wide institutions such as World Bank (WB) and World Trade Organization (WTO). ELG does not consider about exchange rates, foreign technology, pressure on wages, life standards, tariffs, capital controls, regional agreements and their effects to individual economies. Due to the reasons mentioned above Palley (2011) says neither a country nor a region can be engine of the economy by itself.

According to Blecker (2000), the main problem in those countries who preferred ELG, they think that their economy will grow with increasing demand and it results with demand-poaching in industrialized economies and crowding-out for developing countries. When the external demand falls or remains the same, the ELG strategy causes overinvestment and overcapacity in the developed countries. According to Prebisch (1950) and Singer (1950), it has started to be questioned about the reliance of export-led growth because of volatility and unpredictability of international markets and if they have enough capacity for more export from LDEs. As Felipe (2003), ELG suffers from fallacy of composition which is the reason of beggar-thy-neighbour. ELG is a zero-sum game for the economies. If it would be chosen only by couple of them, it could work but one-size fits all logic lost in international trade and causes impoverish growth. Export based growing economies are dependent on external demand and it is limited with the export capacities of industrialized countries. For this reason, a stagnation in international markets can slow the growth rates of developed and developing economies. Studies mostly show that there is a positive relationship between export and economic growth. If the output of an economy is not increasing at the same time compared to domestic demand than it is not a real economic growth and can not contribute to employment rates (Iradian, 2009: 828).

In macro level the standard determinants of trade such as external demand or cost and price competitiveness do not totally explain export developments. Because the macroeconomic performance mostly measures with export behavior but domestic demand has negative impact on import may force a positive effect on export with correction of external balances. This relationship is asymmetric (not direct) and getting stronger when domestic demand decreases and export increases, there is negative substitution effect and positive complementary one. Export can be the negative function of domestic sales in situation low capacity utilisation (ECB Working Paper, 2015: 2-5). This is why ELG may not be the right strategy for sustainable economic growth by its own because it is highly dependent to external demand.

Linder (1961), made a significant contribution to the theory of international trade and said, "Domestic demand is a necessity for the development of the export industry." So domestic demand for a commodity in the short run can be described by income level, income distribution, price of goods and demand elasticity of income. But in the long run, when the economy grows and the consumer reaches a sufficient level of income, consumer demand can shift towards superior substitute goods (Hsu, 1972: 198).

According to the 2005 report of the Asian Development Bank; if an increase in domestic demand is followed by a decline in net exports, the DLG strategy is fully dominant (strictly speaking). On the other hand, if the increase in domestic demand

is greater than the increase in net exports, the DLG strategy can lead to economic growth (weakly speaking).

Leng (2013) argues that domestic demand has some advantages to attract economic growth; reduction of dependence to external demand, and the possibility of more balanced, high quality economic growth and effective utilization of resources etc. According to the Basevi (1970), developing countries require special kind of minimum internal demand for the production and export of a local product. That is learning by doing for import substitution which will create the argument of scale economies.

If domestic demand for the same product decreases compared to other countries, it indicates that they have a disadvantageous position in effective growth and export competition. Because the domestic market used for domestic demand in the past is leaving its place to export in time, and when this existed capacity is full filled, entrepreneurs will create new investments with re-activation and increase the productivity again. Foreign demand is more ambiguous, but more flexible, than domestic demand. In such a case, investing in a traditional product for entrepreneurs is becoming risky. Because foreign demand for exported products is decreasing and local markets are no longer available to return. On the contrary, new investments on increasing domestic demand for a new product will provide new production process and export opportunities with a new growth cycle (Hsu, 1972: 201).

The sustainable growth is possible with a good combination of DLG and ELG hypotheses in developing or LDEs countries. An agreement (which allows small trade surpluses and small trade deficits provides economies to benefit from international trade) will help to have a more balanced and equal development. Moving to a single strategy leads to an unstable, unsustainable and problematic growth. In addition, Felipe and Lim (2005), when domestic demand is suddenly increasing, while negative or a declining net export growth rate follows, it signals an economic crisis so if these two variables of GDP are followed together, they also assume the role of early warning system.

The rest of the paper is organized as follows. In Section 2, current empirical literature is given. Section 3 describes the data and the methodology that has been used. Results are also reported in Section 3 as evidence. Finally, in Section 4, the conclusions and possible policies come out from the estimated model have been discussed.

2. Literature Review

There are plenty of studies about ELG in the literature and according to them ELG is the key of economic growth. The studies support ELG hypothesis are: World Bank (WB) report in 1987; Hong Kong, Singapore, Korean Republic and Taiwan owes to

their sustainable economic growth during 1960s to the openness and free market regulations. Felipe (2003), the ELG strategy leads to strong domestic demand injections by increasing average demand without causing inflationary pressures. McCombie and Thirlwall (1994) argue that trade deficits are hampered by economic growth and increasing export boost economic growth at a rapid pace. Increasing export feeds productivity in exporting products by providing specialization in these sectors and these sectors are more dynamic compared to ineffective non-trade sectors. Moreover, according to the study of Liu, Haiyan and Romily (1997), for China there is a mutually reinforcing relationship between economic growth and international trade. The studies do not support ELG are: Palley (2002), the ELG strategy prevents the development of internal markets in the LDEs and drives them into a race towards the bottom among themselves. This race leads to a conflict in terms of the labor supply of developed and developing countries. The ELG strategy has failed in Mexico, Asia, Russia and Brazil during the economic crisis. Especially the Asian governments have tried to shift from ELG hypothesis to DLG. Lai (2004) examined the role of exports and domestic demand on economic growth during the period between 1961 and 2000 with the analysis of Malaysia. Private consumption represented domestic demand and Johansen co-integration test has been used for the application. Long-term results supported the DLG strategy but did not support the ELG strategy. Hanim (2009), tested four of The East Asian Growth Area with panel data method. Endonesia, Malaysia, Phillipines, Brunei are examined for the period between 1985 and 2002. These countries are not growing depends on export. Because of that export can not called the engine of the economy and ELG hypothesis is rejected.

The reasons of Asian economic crisis in the middle of 1980's were; over valued exchange rates, internal and external excess debts, speculative bubbles and economic distress. Policy makers put in practice some solution packages and tried to move on another development strategy which is called DLG. The studies support DLG hypothesis are: Nakazawa (2010), domestic demand is considered to be the consumption, investment and the increase in other factors that cause economic expansions. On the other hand, for the Japanese economy, the contribution of foreign demand to overseas exports can not be denied. In Japan, the concept of domestic demand-led growth hypothesis is presented as a solution for the first time in a speech by the Japanese president in 1978 to deal with excess surplus balance in the economy. Later, during the 1980s, domestic demand-led growth became a repetitive strategy with its ideal form. In order to respond to the economic growth that has created increasing external demand in East Asia, domestic demand components such as consumption and investment must be sustainable so that the Japanese economy can develop. Gkagka and Zarotiadis (2011), studied affects of trade on economic growth for regional trade regime and different trade partners.

Four different hypothesis (ELG, DLG, import-led growth and gortwh-led export) have been tested with seven different equations for China and EU-15. According to test results there is no support for ELG and import-led growth hypothesis. In contrast economy is growing cumulatively with domestic demand. Venkatraja (2015), tested and compared growth hypotheses based on domestic demand and exports for China and India. Keynesian equilibrium which is based on aggregate demand, import has been removed from the regression analysis. The 1981-2013 period was tested by ANOVA (variance) analysis taking into account the export multiplier. The findings of the analysis indicate that the economic growth based on export demand for China is unsustainable. India is growing on the basis of domestic demand and demand for Chinese goods guarantees India's sustainable growth.

The study which does not support DLG: Chow (2010), the policy makers of Asian Tigers tried to slowdown business cycle fluctuations which strenghten by recurrent shocks. The key solution was diversifying the export markets to protect the economy against external shocks. This is why Asian Tigers increased trade with regional trade partners and global integration of People Republic of China increased intraregional trade in Asia. Export played the main role in the growth and development of Asian Tigers but they adopted a new model and implemented structural policies that increase domestic demand and development of non-tradable sectors. For small open economies, an increase in export demand will not only raise GDP but will also have some effects on domestic demand components where those economies suffer from high import leakage. This shows that DLG do not fit to ultra-small economies such as Hong Kong and Singapore but suits in larger economies such as Korea, Taipei and China (Chow, 2010: 16). Domestic demand plays more dynamic role than external demand in Asian Tigers over time. According to IMF (2005) study; life cycle hypothesis assumes that an ageing population household consumption is bigger than saving rates. So age composition of these countries population are likely to increase consumption to GDP ratio.

3. Data and Methodology

Economic growth is a function of net export (NE) and domestic demand (DD) than the mathematical form can be expressed as written;

$$Y = f(NE, DD) \quad (1)$$

Y represents Gross Domestic Product(GDP), $NE = (X - M)$ the difference between export and import and $DD = (C + I + G)$ is respectively a combination of household consumption and government consumption ($C = C_p + C_g$), investments (gross capital formation or gross domestic investments) and government spendings. The empirical model can be written as follows;

$$Y = \alpha + \beta_1 NE + \beta_2 DD + \varepsilon_t \quad (2)$$

α is constant and ε_t is error term, β_1, β_2 are coefficients. If export increases with economic growth and income ($X > M$) ELG hypothesis is accepted and if domestic demand is dominant and economic growth is rising with income DLG hypothesis is strictly speaking (Felipe and Lim, 2005: 8).

East Asian countries has been analyzed in this study for the period between 1983 and 2013. The annual data has been taken from World Bank Development Indicators. Mongolia, North Korea and Taiwan could not be included because of lack of data. Domestic Demand (DD) is calculated with; household consumption, gross capital formation and government spendings. Net export (NE) is a difference between export of good and services and import of good and services, Gross domestic product annual % growth represents the economic growth rate. All data is in their naturel logarithmic form.

The homogeneity of the data has been tested with Delta test which is developed by Pesaran and Yamagata in 2008 and the null hypothesis of this test claims that series are homogeneous. If null hypothesis rejected then series are heterogeneous.

Table 1: Slope Homogeneity Test Results

Delta Test	T-Statistics	Prob.
$\tilde{\Delta}$	5.969	0.000*
$\tilde{\Delta}_{adj}$	6.354	0.000*

(*) Symbols the significance of probability at 5 % level. According to table 1 our variables are heterogeneous because the given probability value (*) is under 0.05 for both (Δ represents small samples and Δ_{adj} represents big samples) so null hypothesis has rejected.

Table 2: Cross-Section Dependence Test Results

CD Test	Test Statistics	Prob
LM (Breusch, Pagan 1980)	33.309	0.000*
CD LM 1 (Pesaran 2004)	5.212	0.000*
CD LM 2 (Pesaran2004)	-4.089	0.000*
Bias-adjusted CD (Pesaran et all. 2008)	7.617	0.000*

Cross-sectional dependence is very important for the recent studies because it is not possible to assume that all units are independent or any shocks (external or internal) which results from a variable will not affect the other variables. This is why we applied CDLM test which has developed by Pesaran (2004) to our data set. The null hypothesis claims that there is no cross-section dependence. (*) Symbols the significance of probability at 5 % level. According to table 2 null hypothesis has rejected and our data has cross-sectional dependence.

Hadri Kurozumi (2012) unit root test takes into account the cross-sectional dependence which is called the second generation unit root test has been applied to our data set and is better than Co-Augmented Dicky Fuller (CADF) unit root test under the circumstances that it is not possible to reject null hypothesis of CADF. The null hypothesis of HK (2012) claims that there is unit root. Two types of test statistics calculated by the test such as; ZA_la and ZA_spc and assume that these test statistics have normal distribution.

Table 3: Hadri Kurozumi Unit Root Test Results

Level	Constant		Constant and trend	
	T-stat.	Prob.	T-stat.	Prob.
<i>InGDP</i>				
ZA_spc	2.9695	0.0015*	2.4335	0.0075*
ZA_la	2.1982	0.0140*	1.5017	0.0666
<i>InNE</i>				
ZA_spc	0.4238	0.3358	5.0796	0.0000*
ZA_la	0.4398	0.3301	4.8483	0.0000*
<i>InDD</i>				
ZA_spc	-0.6622	0.7461	0.1393	0.4446
ZA_la	-0.6578	0.7447	0.1134	0.4548
<i>First Difference</i>				
<i>InGDP</i>				
ZA_spc	2.3263	0.0100*	6.3576	0.0000*
ZA_la	2.4361	0.0074*	6.7186	0.0000*
<i>InNE</i>				
ZA_spc	4.2541	0.0000*	9.2721	0.0000*
ZA_la	5.1436	0.0000*	11.319	0.0000*
<i>InDD</i>				
ZA_spc	1.0046	0.1575	1.5351	0.0624
ZA_la	1.1687	0.1213	1.8505	0.0321*

(*) Symbols the significance of probability at 5 % level. The maximum lag length is 4 and chosen according to Schwarz criteria. ZA_spc has developed by Sul et al. (2005) and represent long term variance test statistic of augmented KPSS test. ZA_la has developed by Choi (1993); Toda and Yamamoto (1995) and represents augmented KPSS test statistic for panel data. According to table 3 the variables have unit root on their level but after first differences they are stationary.

Westerlund developed a second generation co-integration test in 2007 which takes into account heterogeneity and cross-section dependence with bootstrap critical values as Chang (2004) suggested. This test gives effective results even when the number of observations (N) and the time dimension (T) is small and assumes that each unit is stationary after the first difference. There are four different (two group, two panel) test statistics estimated with error correction mechanism for three

different levels (Westerlund, 2007: 218). The null hypothesis of $H_0: \alpha_i = 0$ which claims that there is no co-integration between variables.

Table 4: **Westerlund Co-integration Test Results**

		t-statistics	Bootstrap Prob.
g_τ	Group mean	-5.893	0.024
g_α	Group mean	-2.659	0.103
p_τ	Panel	-4.857	0.042
p_α	Panel	-4.088	0.031

Table 4 shows that probability of panel test indicators less than 0.05 and statistically significant. The existence of a co-integrated relationship between cross section units has been proved and the null hypothesis is rejected.

Dumitrescu and Hurlin (2012) test can be used not only to estimate homogeneous or heterogeneous cross section units but also whether or not co-integration among variables. Three different test statistics ($W_{N,T}^{Hnc}$, $Z_{N,T}^{Hnc}$, $Z_{N,T}^{Hnc}$) have been estimated by HD (2012) panel causality test and the null and alternative hypotheses written as follows (Dumitrescu and Hurlin 2012, 4):

$$H_0: \beta_i = 0 \quad \forall_i = 1, 2, \dots, N \quad (3)$$

$$H_1: \beta_i = 0 \quad \forall_i = 1, 2, \dots, N_1 \text{ and } \beta_i \neq 0 \quad \forall_i = N_1 + 1, N_1 + 2, \dots, N \quad (4)$$

When the H_0 hypothesis is rejected, it shows that there is a causality relationship between the variables.

Table 5: **HD (2012) Causality Test Results for GDP and NE**

Null HypothesisTest		Statistics	Prob.
GDP does not Granger cause NE.	Whnc	6.434	4.09E-10*
	Zhnc	1.924	0.062635**
	Ztild	1.207	0.192494
NE does not Granger cause GDP.	Whnc	8.0483	3.43E-15*
	Zhnc	3.2005	0.002380*
	Ztild	2.1867	0.036517*

(*) Symbols the significance of probability at 5 % level and (**) 10 % level. According to the findings presented at table 5, it is possible to say that there is two-

way causality from economic growth to net export during the period of 1983-2015 for selected East Asian countries.

Table 6: HD (2012) Causality Test Results for GDP and DD

Null HypothesisTest		Statistics	Prob.
GDP does not Granger cause DD.	Whnc	6.968	1.14E-11*
	Zhnc	5.039	0.025426*
	Ztild	4.003	0.123514
DD does not Granger cause GDP.	Whnc	5.078	99.99E-07*
	Zhnc	0.852	90.277286
	Ztild	0.384	90.370447

Table 6 shows that, there is also feedback relationship between domestic demand and economic growth. Whnc, Zhnc are significant in 0.05 level.

Common Correlated Effect (CCE) Model has been developed by Pesaran in 2006 and it is a long term coefficient estimator. Panel data models include unobserved common factors because they have a lot of countries and variables at the same. Especially for macroeconomic indicators it is crucial to consider multifactorial error structure of given external individual regressors. The main idea is to filter the individual-specific regressors by means of cross-section averages such that asymptotically as the cross-section dimension tends to infinity, the differential effects of unobserved common factors are eliminated (Pesaran, 2006: 967).

CCE approach estimates the effects of linear combinations of the infeasible factors by cross section averages of the dependent and explanatory variables. Runs standard panel regressions augmented with these cross section averages. Both pooled and mean group estimators of CCE are proposed, depending on the assumption regarding the slope homogeneity (Pesaran, 2013: 24). CCEMG and CCEP estimators are giving effective results even in small samples and CCEP estimator superior than the CCEMG in the condition of homogeneity vice versa (Pesaran, 2006: 992). One of the advantages of this method is long-term coefficients for each cross section unit can be individually calculated

The CCE mean group estimator is a simple average of the estimators of the individual slope coefficients (Pesaran 2006, 982):

$$\hat{b}_{MG} = N^{-1} \sum_{i=1}^N \hat{b}_i \quad (5)$$

The CCE pooled estimator is below (Pesaran, 2006: 986):

$$\hat{b}_P = (\sum_{i=1}^N \theta_i X_i' \bar{M}_w X_i)^{-1} \sum_{i=1}^N \theta_i X_i' \bar{M}_w y_i \quad (6)$$

Table 7: CCE Mean Group Estimates

GDP			
	Coeff.	S.E. (NP)	T (NP)
NE	0.614	0.2470	2.4881
DD	0.359	0.1250	2.8751

Mean CCE Group estimates have been reported because the data set is heterogeneous. The significance of standard deviation (SE) and Newey west (NW) type t-statistic (for $N \times T = 5 \times 33$, bias: 0.12, RMSE: 8.55, size: 6.45, power: 12.15 with rank deficiency) can be seen from table 4, experiment 2b in Pesaran (2006) page 997. According to the results presented on table 7, it's seen that in the long term there is a positive relationship between economic growth, domestic demand and net export. When the NE(DD) increases % 1, economic growth rate increase % 0.614 (% 0.359).

Table 8: CCE All Units Long Term Estimated Coefficients

D	NE	e(NW)	D	e(NW)	DP	e(NW)	i	rom	o
Singapore	.236	.192	.215	.042	.743	.202	3	983	015
Hong K.	.161	.119	.242	.021	.355	.135	3	983	015
South K.	.083	.010	.313	.013	.026	.070	3	983	015
Japan	.455	.069	.176	.032	.128	.335	3	983	015
Macau	.137	.021	.852	.022	.004	.008	3	983	015

SE represents Newey west type standard deviation and T represents length of time period from 1983 to 2015. The results show that in all selected countries domestic demand and net exports have positive contributions to economic growth. It is easy to see that in Singapore (1.236) and Hong Kong (1.161) ELG is dominant and net export contributes to growth ten times more than domestic demand. In contrast, in Macau (0.852) and South Korea (0.313) DLG is dominant and in Japan ELG and DLG have a good company and not only net export but also domestic demand contributes to economic growth rate. This is why the Japan has the highest growth rate compare to the other selected countries (2.218).

4. Conclusions

East Asian countries have been analyzed to decide whether ELG or DLG hypotheses are dominant during 1983-2015. Preliminary tests (Delta and CDM) showed that variables are heterogeneous and there is cross-sectional dependence between individuals. The unit root test which considers not only cross-sectional dependence but also heterogeneity implies that variables are non-stationary at the level but they are $I(1)$. According to DH causality test there is two-way causality between economic growth-domestic demand and net export-economic growth. In the long term for all panel; there is a positive relationship between economic growth, domestic demand and net export. When the NE(DD) increases % 1, economic growth rate increase % 0.614 (% 0.359). So in general the contribution of net export to the economic growth is twice bigger than domestic demand for selected countries during the period between 1983-2015. Also CCE method allowed us to see contribution of each country to economic growth and it has supported the results of causality test. According to CCE individual co-efficient estimations ELG is dominant in Hong Kong and Singapore but DLG is dominant in South Korea and Macau. As theory recommends ELG and DLG hypotheses are both accepted in Japan and economic growth rate of Japan is bigger than the others in table 8. The sustainable growth is possible with a good combination of DLG and ELG hypothesis in developing or LDEs countries. Moving to a single strategy leads to an unstable and problematic growth. ELG is criticised because the fallacy of composition and domestic demand is a mandatory component of trade and production process. So not only East Asian countries but also developing and less developed countries should consider the advantages of having good trade and growth policy composition and the strategy to catch the harmony between hypotheses is “to product according to domestic demand with technology intensive methods and export the rest of it in a competitive (price or cost) way to markets with capacity”.

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