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FIXED INVESTMENT, HOUSEHOLD CONSUMPTION, AND ECONOMIC GROWTH: A STRUCTURAL VECTOR ERROR CORRECTION MODEL (SVECM) STUDY OF MALAYSIA

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ABSTRACT

This paper examines the dynamic linkages between economic growth, fixed investment, and household consumption in Malaysia using a structural vector error correction model (SVECM) approach. The empirical results revealed that household consumption and fixed investment are significant in influencing the output growth in the short run. This finding tends to support the alternative view of growth hypothesis, namely fixed investment-led growth, and household consumption-led growth in the short run. In the long run, there is no significant effect of fixed investment and household consumption on growth. However, in the long run, there is a permanent effect of economic growth on household consumption and investment. This empirical finding implies that a demand side policy (for example through fiscal or monetary policy) which can affect the household consumption and investment is only effective to stimulate the economic activity in the short run. Thus a supply side policy would be needed to stimulate the economy in the long run.

Keywords: Economic growth, fixed investment, consumption, SVECM

1. INTRODUCTION

The Keynesian macroeconomic model stipulates that household consumption and fixed investment play an important role in influencing economic growth by stimulating the aggregate expenditure. Therefore, the policy maker should implement an appropriate policy (for example, fiscal and monetary policy) in order to encourage household consumption and fixed investment spending. In the meantime, household consumption and fixed investment are cyclical components, in which they change according to the business cycle conditions. For example, according to Keynesian model, aggregate consumption is volatile rather than smooth because any changes in the current income is reflected in a change in consumption.

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In the demand side model, economists have identified two key drivers of economic growth, namely finance, and export. Accordingly, there are two renowned growth hypotheses in the current literature with regard to the two key drivers; one is finance-led growth (FLG) and the other is export-led growth (ELG). However, previous literature has given little attention in examining other growth hypothesis such as household consumption-led growth (CLG) and investment-led growth (ILG). Good understanding of the role of consumption and fixed investment on growth is crucial to the policy makers in understanding whether they play an important role for economic growth. In addition, it also help them in designing an appropriate policy as to stimulate household consumption and fixed investment.

In the Malaysian context, studies related to the growth-hypothesis are still limited. There are two reasons why Malaysia is an interesting country to study with regard to the growth hypothesis. First, most of the studies in Malaysia have focused on finance-led growth and export-led growth hypotheses, but little attention has been given in examining the role of aggregate household consumption and fixed investment on economic growth. Ang and McKibbin (2007), and Ang (2008c), for examples, have supported the evidence of finance-led growth hypothesis while Baharumshah and Rashid (1999) have supported the evidence of the export-led growth in Malaysia. Thus this study will shed some lights on the importance of consumption and investment in stimulating the economic activity. Second, household consumption and investment have recently contributed a significant portion of Malaysian GDP. On average, since 2000 until 2009, the share of household consumption and investment on GDP is 70.7%[1]. This figure indicates the possibilities that consumption and investment led growth hypothesis may have some basis in Malaysian case.

This paper provides new empirical evidence about the linkages between economic growth, investment, and household consumption in Malaysia. Specifically, this study tries to answer two main questions. First, what is the role of household consumption and fixed investment in influencing Malaysian economic growth? Second, how does the business cycle condition (for example, a change in economic growth) influence the aggregate demand component in terms of household consumption and investment? In order to answer the questions, the following research strategies are adopted. First, we run the Johansen cointegration test in order to identify the number of cointegrating equations in a VAR model. Then, we use SVECM methodology in identifying the short run and long run impact matrix. Finally, we produce SVECM impulse response function and SVECM variance decomposition to examine dynamic linkages among the variables.

The contribution of this study has three aspects. First, this study contributes to the literature by examining the relevance of investment-led growth, and household consumption-led growth hypothesis apart from the common finance-led growth and export-led growth hypothesis which have been previously done in Malaysia. Second, this study employs the recent time series technique, namely SVECM to examine the dynamic linkages of the macroeconomic variables under study. This method is capable to identify the long run and short run impact matrix. Third,

[1] his figure based on author calculation from Bank Negara Malaysia, Monthly Statistical Bulletin.

this study uses a time series data set spanning from first quarter 1991 up to second quarter 2010 (78 quarters), which is long enough to to capture the dynamic relationship among the variable in the VAR model[2].

The results of the study reveal the significant role of household consumption and fixed investment in influencing Malaysia's economic growth in the short run. This finding tends to support the relevance of household consumption-led growth and investment-led growth in the short run. However, in the long run, economic growth plays a significant role in affecting the household consumption and investment. This empirical finding signals that a demand side policy (for example, fiscal or monetary policy) which can affect the household consumption and investment is ineffective to stimulate the economic growth in the long run.

The rest of the paper is structured as follows. Section 2 provides the literature review about the link between investment, consumption, and economic growth. Section 3 describes the econometric framework. Section 4 presents the empirical results, and finally section 5 summarises and concludes.

2. REVIEW OF THE LITERATURE

There is a huge number of studies that have examined the link between economic growth and finance (finance-led growth)[3] and export (export-led growth)[4]. Most of the studies have supported the important role of finance and export in stimulating output growth. The significant role of finance led-growth indicates that the countries need to develop and deepen their financial market in order to take advantage of the positive role of financial development on economic activity. Meanwhile, the significant role of export on economic growth suggests that the countries should promote their export sector in order to gain economic growth.

However, there is a limited number of study investigating the link between investment and household consumption with the economic growth. In macroeconomic context, household consumption and fixed investment are the key drivers in stimulating the aggregate expenditure. Therefore, it is expected that an increase in consumption and/or investment will stimulate aggregate spending, and subsequently will fuel economic growth.

2.1. Investment-Growth Nexus

Empirical results on the role of investment to stimulate economic growth have been mixed. For the US economy, studies by De Long and Summers (1991), De Long et al. (1992), and Mankiw et al. (1992) reveal that the rate of capital formation in the form of capital equipment plays an important role in determining the rate of the country's economic growth. Blomstrom

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2 The data are collected from International Financial Statistics (IFS) DataStream.

3 An excellent literature survey about the role of finance on economic growth can be found in Ang (2008b). In general, most of the empirical studies have supported the view that financial development plays an important role in stimulating economic growth.

4 An excellent review about the role of export on economic growth can be found in Giles and Williams (2000). They find that, most of the empirical studies have supported the important role of export in generating economic growth, in particular from trade-dependent economy.

et al. (1996), however reject the investment-led growth hypothesis in their studies. Using Granger-Sims causality tests, they indicate that the causality run from economic growth to capital formation (investment), not the other way around.

Further study by De Long and Summers (1993) for the developing economies also supports the important role of investment in influencing the economic growth. Specifically, a rapid growth is found where the equipment investment is high, and slow growth when the equipment investment is low. For a small-open economy, the investment-growth nexus is more important. This is because higher investment ratio has a positive impact on economic growth. In fact, it is likely that an increase in economic growth also lead to further increase in the investment ratio. Studies by Yu (1998), Kwan et al. (1999), and Jun (2003) in China, find that fixed investment is a key determinants of China's economic growth. The findings support the view that the Chinese economy is an investment-driven economy. Therefore, the pragmatic policy should be implemented in encouraging the private investment. However, Qin et al. (2006) find that growth of capital stock and growth of investment does not lead or exogenously drive output growth either in the short run or in the long run. In contrast, Chinese output drives investment demand in the economy. Therefore, their finding rejects the investment-led growth hypothesis.

Some studies have focused on the role of foreign direct investment (FDI) and domestic investment (DI) on economic growth. Employing both the OLS and fixed effects estimation, Adams (2009), for example, find that DI is positively and significantly correlated with economic growth in the Sub_Saharan Africa. His finding reveals that FDI has an initial negative effect on DI, and subsequently has a positive effect in the later periods. In addition, the sign and magnitude of the current and lagged FDI coefficient suggest a net crowding out effect. In other study, Ozkan et al. (2011), using Engle-Granger, cointegration, and error correction model (ECM) uncover that infrastructure and building-residential investments have direct relations with the GDP and have causality effects on economic growth in Turkey.

In Malaysian context, empirical study about the link between investment and economic growth is still limited. Anwar and Sun (2011) recently examine the interrelationship among economic growth, the stock of foreign investment, and the stock of domestic capital in Malaysia. Their finding shows that the level of economic development has contributed to the growth of the capital stock. Nevertheless, the impact of capital stock on economic growth is statistically insignificant. In addition, an increase in the stock of foreign direct investment has contributed to an increase in the stock of domestic capital and economic growth. In the meantime, the stock of foreign investment is only significantly affected by the level of openness of the economy and the real exchange rates. Interestingly, an increase in the stock of human capital has affected economic growth while the growth of government spending has hindered economic growth and its effects on the stock of domestic capital is also negative.

2.2. Consumption-growth nexus

Besides investment-led growth nexus, the existing literature has also documented some links between consumption and economic growth. However, most of the empirical studies have focused on the role of energy consumption (for example, electricity) on economic growth. This is because electricity plays a vital role in both the production and consumption of goods and

services within an economy. For example, Ferguson et al (2000) find a strong correlation between electricity usage and the level of economic development and growth in over one hundred countries. However, the strong correlation does not imply a causal relationship between energy consumption and economic growth.

According to literature survey by Payne (2010), 31.15% of the previous studies support the neutrality hypothesis, that is the absence of causal relationship between electricity consumption and economic growth; 27.87% support the conservation (unidirectional) hypothesis, that is a causality running from economic growth to electricity consumption; 22.95% support the consumption-growth hypothesis, and 18.03% support the feedback hypothesis, which is the interdependent relationship between electricity consumption and economic growth (causality runs in both directions)[5].

A recent study by Belke et al. (2011) examines the long-run relationship between energy consumption and real GDP, including energy prices for 25 OECD countries. They use principal components analysis to distinguish between developments on an international and a national level as drivers of the long-run relationship. The empirical findings reveal that the international developments dominate the long-run relationship between energy consumption and real GDP. The results also suggest that energy consumption is price-elastic, and there is also a bi-directional causal relationship between energy consumption and economic growth. In contrast, Gurgul and Lach (2011) analyse the causal links between coal consumption and GDP in the Polish economy. They find the neutrality of hard coal usage with respect to economic growth. This finding indicates that, by closing the hard coal mines in Poland, it should have no significant repercussions on economic growth. In Bangladesh, a recent study by Ahamad and Islam (2011), find that there is a short-run unidirectional causal flow running from per capita electricity consumption to per capita GDP. This finding indicates that an increase in electricity consumption directly affects economic activity in Bangladesh in the short run. However, in the long-run, there is a bi-directional causality running from electricity consumption to economic growth and vice versa.

In the Malaysian context, several studies have looked into the electricity consumption-growth nexus. These include Yoo (2006), Tang (2008), Ang (2008a), and Chandran et al. (2010). The empirical findings seem to show mixed evidence of energy-income causality in Malaysia. For example, Yoo (2006) and Tang (2008) find a bi-directional causality between electricity consumption and economic growth. Ang (2008a), however, uncovers unidirectional causality running from economic growth to electricity consumption, while Chandran et al. (2010) find the opposite causality running from electricity consumption on economic growth.

While there exists a link between consumption in specific sector (i.e. electricity consumption) and the economic growth for Malaysian case, the relationship between consumption in an aggregate term with the economic growth is still in question. Realizing this limitation, this study takes into account the role of aggregate household consumption as well as investment in investigating the dynamic relationship between those variables with the economic growth.

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[5] Payne (2008) also provides excellent literature survey about the causal relationship between energy consumption and economic growth.

3. ECONOMETRIC FRAMEWORK

In order to investigate the dynamic relationship between household consumption, fixed investment, and economic growth, this study uses a structural vector error correction model (SVECM) framework.

There are three reasons why the SVECM framework is an appropriate methodology in investigating the relationship between investment, consumption, and economic growth in Malaysia. First, the SVECM focuses on the structural shocks of the parameters and, unlike the standard VECM, allow the identification scheme to be based on economic theory through the structure of the covariance matrix. Second, SVECM also allows the imposition of the short-run and long-run identifying restrictions on the impulse response function. The result from SVECM can be used to interpret the dynamic effects of various macroeconomics shocks (for example, in this study, household consumption shock, fixed investment shock, and economic growth shock). Third, unlike structural VAR (SVAR) approach, SVECM takes into account the cointegration relationship that exists between variables in the model in identifying economic shock [see Breitung et al. (2004)]. Thus, taking these reasons into account, this study proceeds with SVECM model as the concern is to examine the dynamic effects of the structural shocks via the impulse response function where the short-run and long-run restrictions are imposed according to economic theory.

The most general model of structural VECM can be written as follows:

$$A\Delta y_t = \Pi^* y_{t-1} + \Gamma_1^* \Delta y_{t-1} + ... + \Gamma_{p-1}^* \Delta y_{t-p+1} + C^* D_t + B^* Z_t + v_t \quad [1]$$

where $y_t = (y_{1t},...., y_{Kt})'$ is a $(Kx1)$ vector of endogenous variables. In this study, y_t = (*LGDP, LHCON, LGFCF*)′, where LGDP is log of gross domestic product, LHCON is log of household consumption, and LGFCF is log of gross fixed capital formation; Z_t is a vector of exogenous or unmodeled stochastic variables; D_t contains all deterministic terms; the Π^*, Γ_j^* (j = 1,...., p-1), C^*, and B^* are structural form parameter matrices; and v_t is a (KxK) structural form error that is a zero mean white noise process with time-invariant covariance matrix Σv. The invertible (KxK) matrix A allows instantaneous relations among the variables in y_t.

Following Lutkepohl (2005), by assuming all variables are stationary at I(1), the data generation process can be represented as a VECM as follows;

$$A\Delta y_t = \alpha\beta' y_{t-1} + \Gamma_1 \Delta y_{t-1} + ... \Gamma_{p-1} \Delta y_{t-p+1} + \mu_t, t = 1,2,3,..... \quad [2]$$

where y_t is a K-dimensional vector of observable variables and α and β are (KxK) matrices of rank r. More precisely, β is the cointegration matrix, and r is the cointegration rank of the process. The term $\alpha\beta' y_{t-1}$ is referred to the error correction term. The $\Gamma_{j's}$, $_{j=1,...,p-1}$ are (KxK) short-run coefficient matrices, and μ_t is a white noise error vector with mean zero and non-singular covariance matrix Σ_μ, $\mu_{t\sim}(0, \Sigma_\mu)$. Moreover, $y_{-p+1,...,}y_0$ are assumed to be fixed initial conditions.

The VECM model can also be represented by MA representation as:

$$y_t = \Xi \sum_{i=1}^{t} \mu_i + \Xi^*(L)\mu_t + y_0^* \qquad [3]$$

where, $\Xi = \beta_\perp \left(\alpha'_\perp \left(I_K - \sum_{i=1}^{p-1} \Gamma_i\right)\beta_\perp\right)^{-1}\alpha'_\perp$, $\Xi^*(L) = \sum_{j=0}^{\infty} \Xi_j^* L^j$ is an infinite-order polynomial in the lag operator with coefficient matrices Ξ_j^* that go to zero as $j \to \infty$. The term y_0^* contains all initial values. Notice that, Ξ has rank $K - r$ if the cointegrating rank of the system is r. It represents the long-run effects of the forecast error impulse response, whereas $\Xi_j^{*\prime}s$ contain transitory effects.

In order to examine the dynamic relationship between the variables as in equation (1), impulse response analysis is undertaken. Thus, this study follows the methodology proposed by King et al. (1991) in order to specify the reduced form model. According to King et al. (1991), there are two steps in estimating the SVECM model. First, the cointegration rank (r) in the VAR model has to be specified. Second, the structural shocks of the VAR model have to be recovered by imposing enough identifying restrictions. For example, in this study, with $K = 3$ variables, and with $r = 2$, this indicates that a maximum number of two shocks may have transitory effects. Therefore, there will be one permanent shock $\left(k^* = K - r\right)$ in the system. The permanent shocks is identified by restricting the long-run effects of the last two structural shocks in the system to zero (King et al., 1991). Because $k^* = 1$, the permanent shock is identified without further assumptions $\left(k^*\left(k^* - 1\right) 2 = 0\right)$. For identification of the transitory shocks, $r\left(r - 1\right)/ 2 = 1$ further restriction is needed.

The identification of long-run (ΞB) and short run (B) impact matrix is given by;

$$\Xi B = \begin{bmatrix} * & 0 & 0 \\ * & 0 & 0 \\ * & 0 & 0 \end{bmatrix} \text{ and } B = \begin{bmatrix} * & * & * \\ * & * & 0 \\ * & * & * \end{bmatrix} \qquad [4]$$

where, asterisks denote unrestricted elements. Because ΞB has rank 2, the two zero columns represent two independent restrictions only. It is assumed that household consumption (LHCON) and fixed investment (LGFCF) has a transitory effect, whereas output (LGDP) has a permanent effect in the system. A third restriction is placed on matrix B, and thus we have a total of $K\left(K - 1\right) / 2$ independent restrictions as required for just-identification. The recursive structure of the transitory shock (matrix B) is assumed such that the second transitory shock (household consumption) does not have an instantaneous impact on the third transitory shock (gross fixed capital formation).

4. EMPIRICAL FINDINGS

Table 1 reports the results of the unit root test of the Augmented Dickey-Fuller. As can be seen, all variables namely LGDP, LHCON, and LGFCF are not stationary at the level form. However, after first differencing, all the variables are stationary at least at 5 percent significant level. Since all the variables are I(1), the study proceed with the examination of the long run relationship between the variables in the VAR model. The optimum lag in the VAR model is 5 which is selected based on Schwarz (SC) and Hannan-Quinn (HQ) information criteria.

The result of the Johansen cointegration test is presented in Table 2. As indicated by Trace (Panel A) and Max-Eigen statistics (Panel B), there exist two cointegrating equations. This indicates that, there is a long run relationship between LGDP, LHCON, and LGFCF.

Table 1: Unit root test: Augmented Dickey Fuller (ADF)

Variables	Level Form		First Difference	
	Constant and no trend	Constant and trend	Constant and no trend	Constant and trend
LGDP	-1.657 (10)	-2.515 (12)	-2.948** (8)	-3.165** (8)
LHCON	-0.122 (7)	-2.105 (12)	-4.144*** (8)	-4.125*** (8)
LGFCF	-1.899 (1)	-2.510 (1)	-6.389*** (1)	-6.334*** (12)

Notes: *** denotes significant at the 1% level, ** significant at 5% level and * significant at 10 % level which reject of the null hypothesis on non-stationary. Critical value obtain from Fuller (1976) for constant but no time trend is -3.53, -2.91 and -2.59 for 1%, 5% and 10% significant level respectively, and the critical value for constant and time trend is -4.11, -3.48 and -3.17 for 1%, 5% and 10% significant level respectively. Number in bracket is the optimum lagged based on Akaike Information Criterion (AIC).

Figure 1 reports the results of structural VECM impulse-response. As can be seen in Panel A, LGDP responds positively to the innovation in LHCON up to 5 quarters. For example, in the first quarter, a 1 percent innovation shock in LHCON lead to an increase of LGDP by 0.017 percent. However, from quarter 5 until quarter 15, the LGDP responds negatively to the positive innovation in LHCON. The effect of LHCON on LGDP returns to the equilibrium path after 15 quarters. In the meantime, LGDP responds positively to the positive innovation in LGFCF. For example, in the first quarter, a one percent increase in LGFCF leads to an increase in LGDP by 0.013 percent. The effects of LGFCF on LGDP decays after 20 months. This finding indicates that, household consumption and investment only influence the economic growth in the short run.

In Panel B, shock in LGDP has permanent effects on LHCON and LGFCF. In the long run, a one percent increase in LGDP leads to an increase in LHCON and LGFCF by 0.04 and 0.14

Table 2 : Johansen Cointegration Test

Panel A : Unrestricted Cointegration Rank Test (Trace)				
Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None *	0.293	37.352	24.276	0.001
At most 1 *	0.154	12.411	12.321	0.048
At most 2	0.005	0.362	4.129	0.610
Panel B : Unrestricted Cointegration Rank Test (Maximum Eigenvalue)				
Hypothesized No. of CE(s)	Eigenvalue	Max-Eigen Statistic	0.05 Critical Value	Prob.**
None *	0.293	24.940	17.797	0.004
At most 1 *	0.154	12.049	11.225	0.036
At most 2	0.005	0.362	4.129	0.610

Notes: * denotes rejection of the hypothesis at the 0.05 level
**MacKinnon-Haug-Michelis (1999) p-values
Trace test indicates 2 cointegrating eqn(s) at the 0.05 level
Max-eigenvalue test indicates 2 cointegrating eqn(s) at the 0.05 level

percent, respectively. This finding signals that business cycle condition plays an important role in affecting the household consumption and fixed investment in the long run. In Panel C, there is a negative response of LGFCF to the positive innovation of LHCON in the short run. This signifies that, the more household spend the less investment to be made. However, the effect decays after 20 quarters. In contrast, there is a hump-shaped response of LHCON following to the positive innovation in LGFCF. However, in general the response of LHCON to LGFCF shock is positive. This indicate that an increase in capital accumulation tends to encourage household spending.

Table 3 reports the results of SVECM variance decomposition. As can be seen in Panel A, in the first quarter, LHCON and LGFCF contribute about 96 percent of the variability in LGDP. This further emphasizes the previous results that household consumption and fixed investment are important in stimulating the economic growth in the short run. After 18 quarters, the contribution of LHCON and LGFCF the LGDP variability become less seignificant. This is shown by less than 10 percent contribution of LHCON and LGFCF to the output variability. In Panel B and Panel C, the figures indicate that LGDP plays a significant role in explaining the variability of both the LHCON and LGFCF. LGDP contributes more than 90 percent in explaining the variability in LHCON and LGFCF in the long run.

Figure 1: Structural VECM Impulse-Response

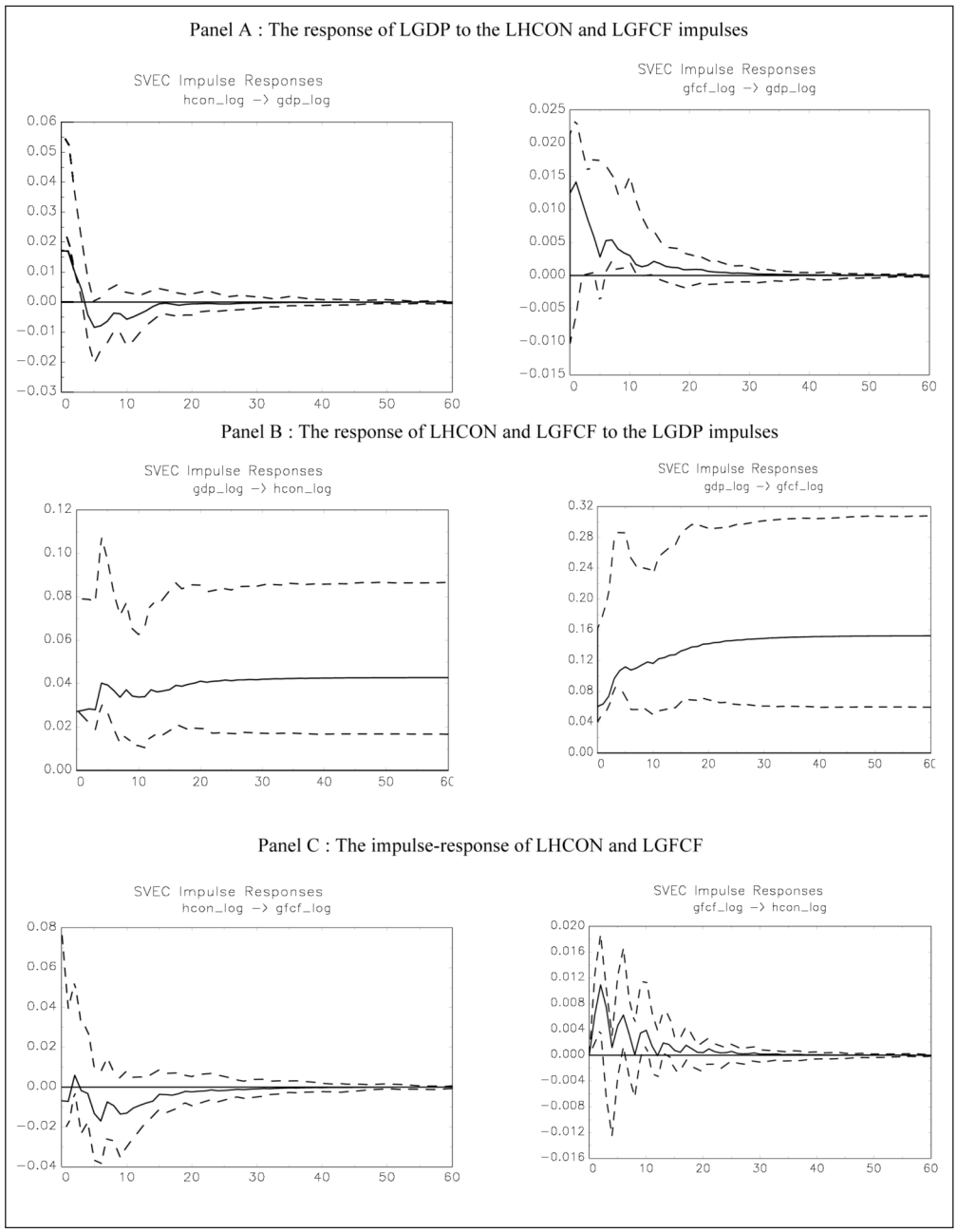

Table 3: SVECM Variance Decomposition

Panel A : SVEC Forecast Error Variance Decomposition in LGDP			
forecast horizon	LGDP	LHCON	LGFCF
1	0.04	0.63	0.33
6	0.57	0.25	0.18
12	0.67	0.19	0.14
18	0.78	0.13	0.09
24	0.86	0.08	0.06
30	0.9	0.06	0.04
36	0.92	0.05	0.03
42	0.93	0.04	0.03
48	0.94	0.03	0.02
Panel B : SVEC Forecast Error Variance Decomposition in LHCON			
forecast horizon	LGDP	LHCON	LGFCF
1	0.9	0.1	0
6	0.93	0.04	0.04
12	0.95	0.02	0.02
18	0.97	0.02	0.01
24	0.98	0.01	0.01
30	0.98	0.01	0.01
36	0.99	0.01	0.01
42	0.99	0.01	0.01
48	0.99	0	0
Panel C : SVEC Forecast Error Variance Decomposition in LGFCF			
forecast horizon	LGDP	LHCON	LGFCF
1	0.59	0.01	0.4
6	0.9	0.01	0.09
12	0.95	0.01	0.04
18	0.97	0.01	0.03
24	0.98	0	0.02
30	0.98	0	0.01
36	0.99	0	0.01
42	0.99	0	0.01
48	0.99	0	0.01

5. SUMMARY AND CONCLUSIONS

This paper provides new empirical evidence about the link between economic growth, fixed investment, and household consumption in a small-open economy of Malaysia. Using a SVECM approach, it tests the relevance of household consumption-led growth, and fixed investment-led growth hypothesis. In addition, it also investigates the effects of economic growth to household consumption and fixed investment. The findings signify the relevance of household consumption-led growth and fixed investment-led growth in the short run. Furthermore, the results also reveal that the economic activity has the long run effect on both household consumption and capital accumulation (fixed investment).

The findings of the study offer several important aspects for policy consideration. First, to stimulate the economy in the short-run especially when the economy is in the shadow of recession, the policy maker can undertake an appropriate fiscal and monetary policy in order to effectively stimulate the household consumption and fixed investment. Second, the policy makers also have to consider a long run growth strategy since the effects of household consumption and fixed investment on economic growth are only significant in the short run. This can be done, for example, by implementing a policy that affect the supply side of the economy. This is because any demand side policies (for example, fiscal and/or monetary policy) are only effective to stimulate economic growth in the short run. Third, the policy makers can implement both a prudent fiscal and/or monetary policy as well as the supply side policy in order to stabilize the business cycle conditions. This is important due to the fact that in the long-run the household and fixed investment are also moving in accordance with the business cycle (the economic growth).

The short run strategies suggested by this study might undeniably have several social implications. First, boosting household consumption through a demand side policy can influence the consumption pattern of the household. The household could spend more on unnecessary things and in doing so they could accumulate more debts. The goal of having higher economic growth can be achieved but the welfare of the household can negatively be affected. Second, in the short run, encouraging the fixed investment (either domestic or foreign direct investment) to propel the economic activity might have devastating effect on social welfare. As firms try to increase their investments, they may need more inputs in term of capital or labor. If domestic economy cannot provide the resources, they may acquire them from foreign countries. This may undoubtedly create competition between domestic resources and the foreign ones. The end results could be a fall in domestic welfare.

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