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ON THE CAUSAL CHAIN OF ECONOMIC FREEDOM AND STOCK MARKET DEVELOPMENT IN MALAYSIA: STRUCTURAL EQUATION MODELING APPROACH

The purpose of this study is to investigate the causal chain of economic freedom and stock market development in Malaysia. Structural equation model (SEM) methodologies were used to assess the measurement, recursive, and structural models of economic freedom and stock market development over the period of 16 years on time series data. The findings reveal a significant unidirectional causality between economic freedom and stock market development. Applying further analysis on measurement and recursive model, we found that property rights, freedom from corruption, investment freedom, and monetary freedom have harmonized variations towards economic freedom, whereas market capitalization, turnover and trading significantly represent the corresponding variations in stock market development. Furthermore, it is noted that open market and regulatory efficiency extend robust explanation in stock market development compared to government size and rule of law. The measurement model fails to consider invariance of business freedom, fiscal freedom and financial freedom within economic freedom.

Keywords: *economic freedom, stock market development, structural equation modeling, variance, covariance.*

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ПРИЧИННО-НАСЛІДКОВА ЗАЛЕЖНІСТЬ МІЖ ЕКОНОМІЧНОЮ СВОБОДОЮ І РОЗВИТКОМ ФОНДОВОГО РИНКУ В МАЛАЙЗІЇ: МЕТОД МОДЕЛЮВАННЯ СТРУКТУРНИМИ РІВНЯННЯМИ

У статті досліджено причинно-наслідкову залежність між економічною свободою і розвитком фондового ринку в Малайзії. Для аналізу причинно-наслідкового зв'язку використано метод моделювання структурними рівняннями, на даних часових рядів побудовано рекурсивні і структурні моделі економічної свободи та розвитку фондового ринку за період 16 років. Результати показали, що існує значний однонаправлений причинний зв'язок між економічною свободою і розвитком фондового ринку, а права власності, свобода від корупції, свобода інвестицій і монетарна свобода сприяють загальній економічній свободи, в той час як ринкова капіталізація, оборот і торгівля представляють відповідні зміни у розвитку фондового ринку. Відкритий ринок і ефективне регулювання більше позначаються на розвитку фондового ринку в порівнянні з такими показниками як розмір уряду і верховенство права. Модель вимірювання не враховує інваріантність свободи підприємництва, фіскальної свободи і фінансової свободи в рамках економічної свободи.

Ключові слова: *економічна свобода, розвиток фондового ринку, моделювання структурними рівняннями, варіантність, коваріантність.*

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ПРИЧИННО-СЛЕДСТВЕННАЯ ЗАВИСИМОСТЬ МЕЖДУ ЭКОНОМИЧЕСКОЙ СВОБОДОЙ И РАЗВИТИЕМ ФОНДОВОГО РЫНКА В МАЛАЙЗИИ: МЕТОД МОДЕЛИРОВАНИЯ СТРУКТУРНЫМИ УРАВНЕНИЯМИ

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В статье исследована причинно-следственная зависимость между экономической свободой и развитием фондового рынка в Малайзии. Для анализа причинно-следственной связи использован метод моделирования структурными уравнениями, на данных временных рядов построены рекурсивные и структурные модели экономической свободы и развития фондового рынка за период 16 лет. Результаты показали, что существует значительная однонаправленная причинная связь между экономической свободой и развитием фондового рынка, а права собственности, свобода от коррупции, свобода инвестиций и монетарная свобода способствуют общей экономической свободе, в то время как рыночная капитализация, оборот и торговля представляют соответствующие изменения в развитии фондового рынка. Открытый рынок и эффективное регулирование больше сказываются на развитии фондового рынка по сравнению с такими показателями как размер правительства и верховенство права. Модель измерения не учитывает инвариантность свободы предпринимательства, фискальной свободы и финансовой свободы в рамках экономической свободы.

Ключевые слова: *экономическая свобода, развитие фондового рынка, моделирование структурными уравнениями, вариантность, ковариантность.*

1. Introduction. The role of economic freedom has assumed a developmental character in capital markets following the liberalization of stock markets. In a setting which reflects economic freedom fluctuating widely across countries, investors worldwide equity markets perceive it as fascinating to spot attractive investment opportunities. Cross-border economic freedom particularly easing the regulatory framework helps international investors penetrate into domestic markets. The expansion of credit obtained this way has an encouraging inference on market liquidity which offers opportunities to enhance the productivity of resources within market capitalization perspective. Capitalism has frequently been held responsible because for the 2008 financial crisis and following economic decline over the past few years (Smimou and Karabegovic, 2010). It is broadly assessed that economic freedom is a crucial factor in determining the well-being at mass level. Countries with more economic freedom tend to be wealthy and their financial markets tend to be more stable, compared to the countries having a lower degree of economic freedom. Stock markets of the countries with higher economic freedom perform better and are more stable (Chen and Huang, 2009). Meanwhile, Smimou and Karabegovic (2010) have the view that stock markets are not determined by capitalism (proxy of economic freedom – remarkably, free market system), rather it is a precondition for stock market performance and development.

Gwartney et al. (2002) have the view that tax regulation and government expenditure substitution with voluntary exchange and market coordination reduce economic freedom of a country; in line with this, strong and vibrant private sector investment is a vital and sufficient condition for long-term economic growth and for sustained capital market development. The increasing trend towards globalization has gained the imperativeness of foreign direct investment, however FDI movement is subject to prerequisites and is commonly driven by country governance and regulatory environment. Parker (2002) postulated that balancing of consistency, accountability and transparency is one of the core features of well-functioning regulatory system. The association between financial system and capital market development underline the magnitude of public policies to administer capital market and economic institutions with the purpose to reinforce the investor protection, investor confidence and to

promote market efficiency. For example, Kapuria-Foreman (2007) examined the role of policy orientation with institutional quality components of economic freedom index with FDI and concluded that economic freedom does not have a significant impact on FDI with the aggregated measure of economic freedom, however, with disaggregated measure there is a more clear picture of the significant impact of economic freedom on FDI. Similarly, Altman (2007) studied the economic freedom index with economic performance and located gap between economic freedom and economic performance at diverse levels. Further, he found the influence of higher growth and per capita income in the countries with significant economic freedom.

Joshua and Lawson (2008) noted that the coefficient of slope among various components of economic freedom index are negative while measuring government fiscal size and per capita, whereas Ismail (2010) found significant effects of economic freedom on economic growth. Institutional reforms upholding economic freedom might have a positive effect in long and short terms but are associated with cost, therefore such issues may be replaced with 5 years rather than annually (Bergh and Karlsson, 2009). Nystrom (2008) argued that property protection, small government size and low credit/labor rate & better regulation increase entrepreneurship. Governments with large volume depict lower trends in taxes, whereas small-sized governments depict the self-employment rate on higher side (Bjornskov and Foss, 2006). Basing on the world survey, Stocker (2005) stated that an increase in economic freedom associated with better socioeconomic environment offers investors exceptional investment returns, whereas Ritter (2005) concluded that equity returns are negatively correlated with economic freedom. Surprisingly, an increasing body of literature related to causal chain of capital market development and economic freedom have been overlooked either methodologically or in terms of contents rigorousness, overall and particularly in developing countries. The majority of previous works focuses on the relation or influence of economic freedom with other diverse perspectives of cross-border venture capital performance (Wang and Wang, 2012), bank performance (Sufian and Habibullah, 2011), public-private partnerships (Heybati, Roodposhti, Nikoomaram and Ahmadi, 2011), equity return (Smimou and Karabegovic, 2010).

In contrast, this study aims to investigate the causal chain of economic freedom and stock market development in emerging economies with a particular focus on Malaysian economy since it has experienced a moderate degree of resilience in the wake of demanding global economic surroundings. Generally, the regulatory structure is relatively more efficient and business measures have been streamlined. Contrary to the performance in other areas, modernization of the legal framework and endorsement, the efficient rule of law still lags behind. In addition, property rights are not vigorously protected and judicial system weakens the political interference (Heritage, 2012). The contributions of the study are twofold. Primarily, this study adds to the current scholarly understanding by encompassing the overall influence of economic freedom on the stock market development in general and relative importance of individual indicators of economic freedom and stock market development in particular. Secondly, this study uses a new approach of time series that is structural equation modeling to capture the overall and the individual indicator effects.

2. Methodology.

Model Specification: In this study, we used the time series data to capture the impact of economic freedom index on capital market development. Each variable of interest (economic freedom index and capital market development) is composed of certain components, which cumulatively account for economic freedom index and capital market. The components of economic freedom include property rights, freedom from corruption, fiscal freedom, government spending, business freedom, labor freedom, monetary freedom, trade freedom, investment freedom, and financial freedom. The index of overall economic freedom and each of its components are calculated by Heritage Foundation and are available on their website (www.heritage.org) since 1995. Similarly, the indicators of capital market development are being rigorously used in previous literature. The indicators of capital market development include market capitalizations (% of GDP), turnover ratio of stock and stock traded. This study included an additional indicator of S&P global business indices of Bursa Malaysia formally known as a Kuala Lumpur Stock Exchange. The components of economic freedom are further categorized into 4 major components, which are: rule of law, limited government, regulatory efficiency, and open markets. The subcomponents of the rules of law include property rights and freedom from corruption. Likewise, the subcomponents of limited governments are fiscal freedom and government spending. The subcomponents of regulatory efficiency include business freedom, labor freedom and monetary freedom. Finally, the subcomponents of open markets include trade freedom, investment freedom and financial freedom. The study used the annual data on the variables of interest covering the period 1995–2011. The data for the index of economic freedom and its components were extracted from the website of the Heritage Foundation whereas the data on capital market development indicators was extracted from the World Bank indicators (WBI).

Contrary to other methodologies of time series data such as such as ordinary least squares (OLS), causality or cointegration techniques to explore the casual chain of variables of interest, this study chooses the structural equation modeling or simultaneous equation modeling methodology to locate the causal chain. SEM is a flexible and general system for stipulating linear relationship between unobserved and observed variables (Buuren, 1997). It is an authoritative multivariate analysis technique to investigate and verify the causal relationships. The main advantages of using SEM over others econometric techniques are: first, SEM supports multiple interacting equations models simultaneously, second, time dependent correlation can be clearly modeled and thirdly, unobservable (latent) variables can be included in the model (Baranoff, Papadopoulos and Sager, 2007), thus making SEM special among methodologies. It compels a structure on the variance-covariance matrix and thus imposed variance-covariance structure is later validated by the data. The fundamental hypothesis SEM involves is:

$$\Sigma = \Sigma(\varphi), \tag{1}$$

where Σ refers to the matrix of covariance observed; φ refers to the vector of model parameters and $\Sigma(\varphi)$ implied covariance of the model. SEM consists of 2 parts, namely, measurement model and structural model and commonly represented in the following equation:

$$\eta = \beta\eta + \gamma\omega_i + u_i, \quad (2)$$

where each ω_i represents $i = 1, ..., q$ is in vector $\omega_i(\omega_1\ \omega_2\ \omega_3\ \omega_4 \ldots\ \omega_n)$ and this represents the influential cause of latent variables in vector η. γ represents the individual coefficient (γ_1, γ_2, γ_3, ..., γ_n) in a matrix γ.

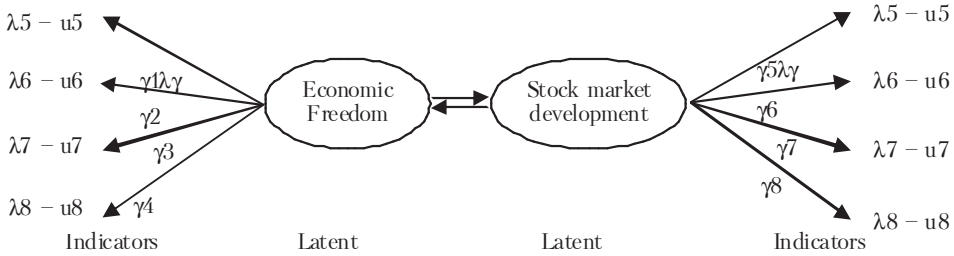

Figure 1. **General Structures of Economic Freedom and Stock Market Development in the SEM Framework**

The matrix vector of the structural model for n numbers of observed and latent variables can be specified as follows and commonly known as a Bentler-Weeks model. The matrix represents the breakdown of the basic structural model parameters where $n = (v_1, v_2 \ldots\ v_n)$ are vectors. β is the parameters of the 5x5 matrix with unconstrained specification estimated in the proceeding section and γ denotes the diagonal matrix of variance-covariance structure and u_{in} is the error term of vector that is the unexplained variation leftover to the variables:

$$\eta = \beta n + \gamma \ldots u_{in}. \quad (3)$$

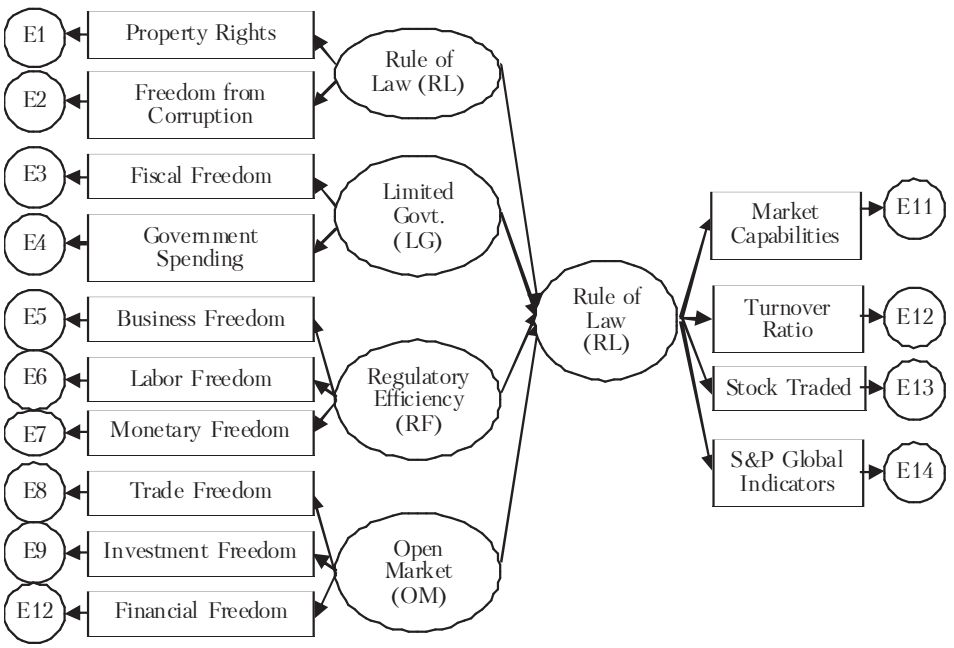

Figure 2. **Modeling economic freedom (major constructs) and stock market development**

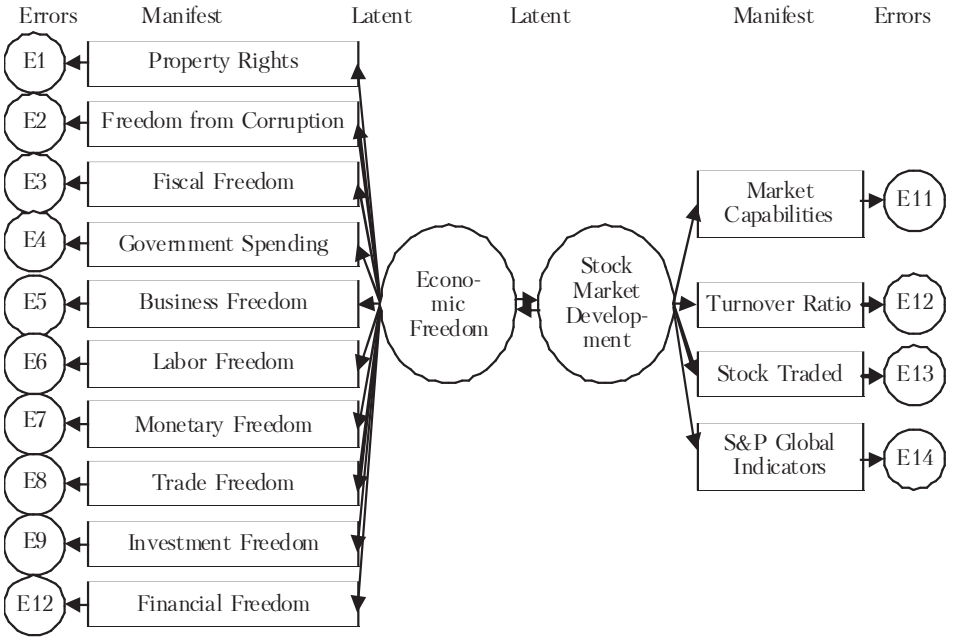

Figure 3. **Structural model of economic freedom and stock market development**

In this study, 3 different types of estimation are carried out which is discussed in detail in the preceding discussion. Figure 2 represents a measurement model of economic freedom indicators and stock market indicators. The role of the indicators of economic freedom is considered as a dynamic component that defines the chronological relationship between the factors and the noteworthy structure of this model is the distributional specification. In the model depicted on Figure 3, we assumed all error terms (e_n) are independent of each other.

Among the dynamics of SEM abilities to create, latent constructs such as variable, which is not calculated directly, estimated in the model from several measured/manifested variables, and then predicted to tap into the latent construct. In a connection to capture the analytical rigor, the model has been developed in Figure 3 showing the overall impact of economic freedom on stock market development, As it can be observed on Figure 3, economic freedom is measured by 10 observed variables discussed above and stock market development is measured by 4 variables.

3. Results. One of the contemporary features data involves is the normalization, which facilitates in defining well-modeled linear relationships. More precisely, this process omits the redundancy existing in the data to conjecture the meaningful interpretation in several ways. Table 1 reports the descriptive statistics of economic freedom and stock market development indicators. The mean value (m_{mc} = 5, with Sd_{mc} = .31) of market capitalization (MC) is relatively higher than the rest of indicators (m_{tr} = 3.56, SD_{tr} = .36; $m_{S\&P\ indices}$ = 1.92, $SD_{S\&P\ indices}$ = 1.76; m_{st} = 3.95, SD_{st} = .55). Whereas, the mean score of government spending (GS) is relatively high among the economic freedom indicators, followed by monetary freedom (MF), business freedom (BF), fiscal freedom (FF) and trade freedom. Table 1 further reports the per-

centile analysis of the data structure denoting the relative standing of the data values. It is evident from Table 1 that major percentile structure of economic freedom and stock market development falls in the second and the third percentile with the highest values.

Table 1. **Descriptive Statistics of Economic Freedom and Stock Market Development Indicators**

Indicators	Mean	SD	Skewness	Kurtosis	First Percentile	Second Percentile	Third Percentile
	Stock Market Development Indicators						
Ln(MC)	5.00	.31	.58	1.24	4.84	4.95	5.16
Ln(TR)	3.56	.36	.48	.72	3.37	3.50	3.74
Ln(S&P Index)	1.92	1.76	-.13	-2.07	.00	2.54	3.68
Ln(ST)	3.95	.55	.93	.65	3.63	3.82	4.26
	Economic Freedom Indicators						
Ln(BF)	4.31	.10	.64	-1.75	4.25	4.25	4.44
Ln(TF)	4.27	.09	-1.23	1.92	4.20	4.29	4.34
Ln(GS)	4.39	.04	-.65	-.57	4.36	4.40	4.43
Ln(FF)	4.29	.06	-.71	.02	4.36	4.39	4.41
Ln(MF)	4.38	.03	-.03	-1.37	4.36	4.38	4.41
Ln(IF)	3.65	.27	.66	-.50	3.40	3.69	3.91
Ln(FINF)	3.69	.24	-.34	-1.86	3.40	3.69	3.91
Ln(PR)	4.04	.16	.62	-1.78	3.91	3.91	4.25
Ln(CURP)	3.96	.12	1.97	3.73	3.91	3.93	3.97
Ln(LF)	1.77	2.18	.39	-2.11	.00	.00	4.28

Note: Natural log (Ln) of both economic freedom and stock market development indicators was taken to rationalize the structure of data for meaningful interpretation. *Ln* represents the log terms whereas MC is the market capitalization to GDP, TR is turnover ratio to stock trade, S&P index is a global equity index of Bursa Malaysia; ST is a stock trade over the period. BF represents business freedom, TF – trade freedom, GS – government spending, FF – fiscal freedom, MF – monetary freedom, IF – investment freedom, FINF – financial freedom, PR – property rights, CURP – freedom from corruption and LF – labor freedom.

Structural Equation Modeling: This section comprises the measurement, recursive and structural model estimates. To do so, maximum likelihood (ML) estimation method was used. Since ML methods explain the loadings by reducing the discrepancy between the equations implied by the model and the attained covariance. One of the main advantages of the regular ML method in SEM is ML excluding the incomplete observations and if a sample size is large enough and numbers of incomplete observations are fairly less, the estimation in SEM might not bear much from overlooking the information of incomplete observation (Zhang and Young, 2011). In this study the number of observations related to labor freedom is incomplete and ML estimation tends to facilitate the model convergence. Further, ML estimation requires univariate and multivariate normal distribution to achieve the convergence.

In panel 1 of Table 2, rule of law (RL), limited government (LG), regulatory efficiency (RF) and open market (OM) are classified as latent variables. 2 observed variables 1) property rights (PR) 2) freedom from corruption measure rule of law, whereas fiscal freedom (FF) and government spending (GS) measure limited government. Likewise, business freedom, monetary freedom, and labor freedom measure regulatory efficiency and trade freedom, investment freedom, and financial freedom measure open markets. It is evident from the statistics in panel 3 of Table 1 that both prop-

erty rights and freedom from corruption (β_{pr} = 0.97, β_{fc} = .62) positively and significantly determine the rule of law. Similarly, government spending (β_{gs} = 0.27) positively and significantly determines the limited government constructs. Contrary to the unidimensionality and scalogram assumptions, fiscal freedom (β_{ff} = -0.80) negatively determines the limited government; however, the dimensionality magnitude is insignificant. Further, it is noted that both monetary freedom (β_{mf} = 0.43) and labor freedom (β_{lf} = 0.63) have positive and significant variations in regulatory efficiency, whereas business freedom has negative and statistically significant variations in regulatory efficiency. Likewise, trade freedom (β_{tf} = 1.71) and investment freedom (β_{if} = 0.39) show positive variations in the open market; however, the trade freedom variation is statistically insignificant towards open market.

Table 2. **Measurement Model Estimates of Economic Freedom – Coefficients and t-stat' in Parenthesis**

Panel (A)	Observed Variables									
Latent	PR	FC	FF	GS	BF	LF	MF	TF	IF	FINF
RL	0.97**	.62**								
	(4.23)	(2.86)								
LG			-.80	.27**						
			(-1.33)	(5.76)						
RF					-1.01*	.63*	.43**			
					(-1.973)	(2.783)	(5.83)			
OM								1.782	.391	-.118*
								(.498)	(7.89)	(-2.16)

Panel (B) Covariance Estimates of Latent Variables		
Covariance pair	Estimate	t-stat
LG-RL	.001	1.15
LG-RF	.000	-1.04
RF-OM	-.001	-.96
RL-OM	.005	1.24
RL-RF	-.001	-1.44
LG-OM	**.000**	**-.52**

Panel (C) Fit Statistics	AIC	BIC	BCC	CAIC	ECVI	MECVI
$\chi^2/df_{(92.196,)} = 2.130$	144.19	258.59	165.86	191.86	9.012	16.162
SRMR = .025						

Note: * and** shows significance at 5% and 1% respectively; RL, LG, RF and OM denote the rule of law, limited government, regulatory efficiency and open market respectively. Fit statistics include AIC – Akaike information criterion, BIC – Bayesian information criterion, BCC – Browne-Cudeck criterion, CAIC – consistent Akaike information criterion, ECVI – expected cross-validation index, MECVI – expected cross-validation index for maximum likelihood estimations, SRMR - standardized root mean square residual.

Table 2 further depicts fit statistics of the measurement model which shows the relative standings how the observed data fit the model depicted on Figure 2. Chi-square (χ^2) statistics are commonly used to access the fit of the model (Choo, 2004) which shows the variance structure in variance-covariance of the observed and unobserved variables. Additionally, if the Chi-square fit statistics fails to capture the discrepancy structure of the variance-covariance, the model needs to be altered for exogenous information or allowing additional restriction. There is no consistent benchmark for assessing the relative index of Chi-square. Therefore, the lower the value of Chi-square

(χ^2), the better is the fit (Choo, 2004). More preciously, the recommended threshold assessing the relative Chi-square fit index varies from 2.0 (Tabachnick and Fidell, 2007) to 5.0 (Wheaton et al., 1977). Bollen and Long (1993) suggested that in addition to Chi-square fit statistics assessment in structural equation modeling, it is sensible to consider several other fit measures. The other fits statistics such as AIC (Akaike information criterion), BIC (Bayesian information criterion), CAIC (consistent Akaike information criterion) compose a valuable class of index since these indices penalize for the amount of parameters and consequently take the parsimony of models into consideration (Wicherts and Dolan, 2004). Unlike relative Chi-square fit statistics, AIC and BIC are comparative fit indices and can be accessed subjectively. The lower value of AIC indicates a better fit, whereas BIC puts high value on parsimony because it increases penalty with increase in a sample size (Kenny, 2012). Similarly, the lower the values of ECVI and MECVI are, the better is the model fit.

Table 3 presents the estimates of the recursive model of stock market development, stock market development indicators such as market capitalization (MC), turnover (TR), S&P global indices and stock traded with major indicators of economic freedom such as rule of law, regulatory efficiency (RF), limited government (LG) and open market (OM). The graphical sketch of the model estimation is provided in Figure 3. The estimates in panel A of Table 3 describe the unidimensionality of stock market development indicators. It is evident from the statistics that the observed variables such as market capitalization ($\beta_{mc} = 0.339$), turnover ($\beta_{tr} = 0.82$) and stock trading ($\beta_{st} = 1.135$) have significant and positive variations in stock market development. Comparatively, stock trading and turnover signify more variations in stock market development, whereas S&P global indices ($\beta_{s\&p} = -0.269$) have negative variations in stock market development illuminating relatively fragile openness of the stock market to global equity indices.

Table 3. **Recursive Model Estimates of Economic Freedom and Stock Model Development, Coefficients, t-stat in parenthesis**

Panel (A)						
Latent	**Latent Variables Coefficients**					
Stock Market Development	**MC**		**TR**		**S&P Index**	**ST**
	.339**		.82*		-.269	1.135*
	(4.198)		(2.287)		(-1.858)	(2.176)
Panel (B) Recursive Model estimates of Economic Freedom Indicators and Stock Market Development						
Stock Market Development	**RL**		**RF**		**LG**	**OM**
	.11		.39*		.85*	.29*
	(.84)		(2.62)		(1.94)	(3.67)
Panel (C) Fit Statistics	**AIC**	**BIC**	**BCC**	**CAIC**	**ECVI**	**MECVI**
$\chi^2 / df_{(78,\ 225.342)} = 2.889$						
SRMR = .006	270.95	135.95	300.94	336.94	16.93	84.434

Note: * and ** denotes significance at 5% and 1% respectively.

Panel B of Table 3 further signifies recursive model estimates of economic freedom major indicators impact on stock market development. Interestingly, regulatory efficiency, limited government, and open market positively and significantly influence the stock market development. Moderately, limited government and regulatory

efficiency have variation in stock market development vigorously, whereas the rule of law has a positive impact on stock market development but it is statistically insignificant. The fit statistics in panel C of Table 3 illustrates that relative Chi-square χ^2/df fit acutely converges to the variance-covariance matrix, thus explaining minimum discrepancy factors coupled with standardized root mean square residuals (SRMR), BIC and ECVI, MECVI. The BCC and AIC scores are relatively high because the current recursive model penalized for less restrictions added by relatively less degrees of freedom as compared to the measurement model depicted in Figure 2.

Table 4. **Structural Model Estimates of Economic Freedom and Stock Market Development Coefficients, t-stat in parenthesis**

Panel (A)										
Latent	**Observed Variables Coefficients**									
Stock Market Development	**PR**	**FC**	**FF**	**GS**	**BF**	**LF**	**MF**	**TF**	**IF**	**FINF**
	.710**	.118**	.433**	0.09	.521**	-.044*	.095**	.096**	.057*	.151
	(36.91)	(7.248)	24.95	(.566)	29.14	(-2.75)	(5.88)	(5.92)	(3.54)	(.320)

Panel (B) Causality of Economic Freedom and Stock Market Development – Coefficient		
Causal Links	**Coefficients**	**t-stat**
Economic Freedom – Stock market Development	.36*	4.986
Stock Market Development – Economic Freedom	.75	.478

Panel (C) Fit Statistics	**AIC**	**BIC**	**BCC**	**CAIC**	**ECVI**	**MECVI**
χ^2 /$df_{(78,\ 338.971)}$ = 4.34	392.97	202.97	415.46	442.46	24.561	75.186
SRMR = .004						

Table 4 reports the structural model estimates of economic freedom and stock market development. The statistics reported in Table 4 have twofold significance. First, the impact of individual economic indicators on stock market development is examined. Second, the overall impact of economic freedom on stock market development and stock market development of economic freedom is examined. The individual coefficients of economic freedom indicators elucidate that property rights (β_{pr} = 0.71), freedom from corruption (β_{fc} = 0.118), fiscal freedom (β_{ff} = 0.43), business freedom (β_{bf} = 0.52), monetary freedom (β_{mf} = 0.095), trade freedom (β_{tf} = 0.096) and investment freedom (β_{if} = 0.057) have a positive and significant impact on stock market development. Labor freedom has negative and statistically significant impact on stock market development, whereas government spending and financial freedom have a positive impact on stock market development. However, it is statistically insignificant. Panel B of Table 4 further implies that economic freedom and stock market development share causality in terms of influence on each other, however, overall economic freedom has positive and statistically significant impact on stock market development as compared to the impact of stock market development of economic freedom. The fit statistics in panel C of Table 4 validates the findings by symbolizing the acceptable cutoff score of relative Chi-square (χ^2/DF), standardized root mean square residuals and subjective judgment of AIC, BIC, ECVI and MECVI.

The overall estimation caters fair display associated with economic freedom indicators and stock market development. The findings reveal that Malaysian economy enjoys a judicious level of property rights, fiscal freedom, trade freedom, and monetary freedom. In line with the finding, Heritage Foundation (2012) also con-

cluded that private property is protected, however, the judicial system is open to political sway. The finding related to government size is relatively less commendable since the reflective response of government spending and fiscal freedom is relatively fragile as compared to other areas of the economy. Literature suggests that the optimum size of government largely depends on the insights of how efficient by the government trails its functions and consequently, this pheromonen largely depends on fundamental purposes of policy makers as well (Lundstrom, 2003). Further, Scherer (1992) and Vickers (1995) have the views that large government size may also have an efficiency-reducing effect in a private sector because of the deadweight loss created through the nuisance of tax structure and decline in the incentive to reduce costs due to declining competitive pressure shaped by lesser size of the private sector.

4. Conclusion. This study examined the causal nexus of economic freedom and stock market development through structural equation modeling techniques using the data of economic freedom and stock market development indicators. Both stock market development and economic freedom indicators are framed in measurement, recursive and structural models. The conclusion of the study is threefold. First, the empirical estimates of the measurement model imply that few indicators of economic freedom such as fiscal and financial freedom do not provide complementary variations. Second, the recursive model estimates imply that market capitalization, turnover and stock trading significantly represent the corresponding variations in stock market development, whereas global equity indices do not satisfactorily support stock market development. The recursive estimates further entail that rule of law, limited government, regulatory efficiency and open market significantly predict stock market development. Moreover, open market and regulatory efficiency extend robust explanation in stock market development than limited government and rule of law. Third, the structural model estimates denote that property rights and business freedom have strong impact on stock market development as compared to the rest of economic indicators.

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