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Freedom Indices and Capital Asset Pricing Model: Malaysian Evidence Influence Policy?

Tay Lee Ying[1]*, Devinaga Rasiah[1] and Lai Ming Ming[2]

*Corresponding author: lytay@mmu.edu.my
[1]Faculty of Business, Multimedia University, Malaysia,
[2]Faculty of Management, Multimedia University, Malaysia

Abstract

Human rights and fundamental freedoms such as economic, political, and press freedoms vary widely from country to country. It creates opportunity and risk in investment decisions. Thus, this study is carried out to examine if the explanatory power of the model for capital asset pricing could be improved when these human rights movement indices are included in the model. The sample for this study comprises of 495 stocks listed in Bursa Malaysia, covering the sampling period from 2003 to 2013. The model applied in this study employed the pooled ordinary least square regression estimation. In addition, the robustness of the model is tested by using firm size as a controlled variable. The findings show that market beta as well as the economic and press freedom indices could explain the cross-sectional stock returns of the Malaysian stock market. By controlling the firm size, it adds marginally to the explanation of the extended CAP model which incorporated economic, political, and press freedom indices.

Keywords: Capital Asset Pricing Model (CAPM), Stock returns, Economic Freedom Index, Democracy Index, Press Freedom Index

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1. Introduction

The ability to ascertain the value of stocks is essential for an investor to make an accurate decision to buy, hold or sell his or her investment. Investors will select undervalued

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stocks to invest if they expect the stock prices will increase to reflect their intrinsic values. On the contrary, investors who buy overvalued stocks may incur losses as the stock prices are not justified by its earnings outlook or its declined intrinsic value (Adra & Barbopoulos, 2018). The gains and losses incurred in the stock market can be substantial. From Malaysia's perspective, the FTSE Bursa Malaysia (FBM KLCI) gains almost doubled (45.2%) in 2009 (The Edge Malaysia, 2009) and dropped to its nine-year low in March 2020 due to political uncertainty and external challenges (New Straits Times, 2020). With such ambiguity, naturally many researchers have to put in a lot of effort to develop an efficient model to estimate stock prices accurately.

In order to make a good investment decision, investors have to be acquainted with the valuation practices within the Malaysian context. One way to do that is to determine the cost of equities. The model for Capital Asset Pricing (CAP) is an established valuation estimation to gauge the linkages between return and risk. It measures beta, the single risk factor of stocks. Since there is no clear cut on the best valuation method of stocks in emerging markets like Malaysia (Mansor, Rahahleh, and Bhatti, 2019), it is difficult to gauge the value of these stocks. The variation of the value of these stocks is largely due to the measurement of beta that lacks important economic, political and industrial information (Jenkins, 2012, Nesset, Bøgeberg, Kjaerland, and Molden, 2019). As a result, stocks may be inappropriately over or undervalued, causing inaccurate investment decisions made.

Gross domestic product (GDP) is one of the most common indicators used to measure the economic health of a nation. Since 2010, Malaysia's GDP flourished at an average of 5.6 percent. In the third quarter of 2017, Malaysia grew 6.2 percent, as compared to the previous quarter.

This shows that the economy of Malaysia is expanding in every sector, for the period between 2010 and 2017 (The Star Online, 2016; New Straits Times, 2019). The economy of Malaysia has been expanding impressively, largely due to its painstaking economic planning and careful implementation of fiscal and monetary policies. Probably that is why The Heritage Foundation (2019) reported that Malaysia is ranked twenty second, with an economic freedom score of 74 in 2019.

With almost 63 years of independence, the economic development of Malaysia has not been easy. In order for Malaysia to be recognized as a developed country, there are several other issues that it has to address (Malaysiakini, 2015). Other than economic development, Malaysia has a long way to go in managing its political and institutional advancement. The recent political tussle between two main political parties in 2008 and 2013 elections has caused a stir in Malaysia's political scene, causing uncertainty and negatively impacting the Malaysian stock market (Liew and Rowland, 2016).

Besides Malaysia's commendable political maturity, its press freedom index is also unimpressive. In 2019, out of 180 nations, Malaysia ranked 123 in press freedom (New Straits Times, 2019). Without freedom of speech, Malaysians will be deprived of their rights to voice their views to bring about changes that will benefit everyone in Malaysia.

Thus, Malaysia has to face these political and press freedom challenges heads on. An unstable political tussle and restricted press freedom will negatively affect the vibrancy of Malaysia's capital market. It will also adversely affect investors' resilience and confidence in Bursa Malaysia. According to Weller & Singleton (2004), greater participation in the allocation of economic resources among citizens of a country is driven by political freedom. The latter will also increase labour productivity through allocation in education, training and development, as compared to a country that lacks freedom in political views. In other words, political freedom will lead to greater productivity, employment and possibly an increase in wages. Li (2008) added that capital market efficiency could be improved further through press freedom when new information about the economy was incorporated into the asset prices.

Besides press freedom, economic freedom is also another important factor to attracts foreign investment inflow through a competitive business environment and reduced red tape and barriers. It is the motivation of this study to determine other contributing factors that may influence the market's beta in explaining Malaysia's stock return. Specifically, this study's analysis will focus on political, press freedoms as well as the economic impact on stock prices in Malaysia.

The conventional CAP model forms the basis of this study and it is further enhanced by employing freedom indices in the model. The improved asset pricing model

is developed to better capture more accurate valuation practices of investment capital. The next section of this paper reviews related studies, discusses research methodology, reports findings, deliberates implications and ends with a some concluding remarks.

2. Literature review

Over the years, numerous researchers investigated on the explanatory power of various variables on stock returns. However, most of the variables used are mainly the firm's fundamental variables (Halling, Ibert, Lenz, 2017; Negrea and Toma, 2017). Several related literatures that examined freedom indices in their studies are reviewed. The efficient market hypothesis (EMH), the capital asset pricing (CAP) model and the freedom indices (economic freedom index, democracy index, press freedom index), are discussed accordingly.

Efficient Market Hypothesis (EMH)

The capital market provides a channel for firms to raise fund and expand their businesses. At the same time, individual investor is free to choose which company's stocks he or she wishes to invest assuming that current stock price "fully reflects" available information. The EMH theory was first formalised by Fama (1970), who won the 2013 Nobel Prize Winner in Economic Sciences. The central concept of the theory is the expected return or "fair game" analysis. In an efficient market competition, stock prices will reflect all random but relevant information (Fama, 1970).

Fama (1965; 1970) categorised EMH into three different categories, namely, weak, semi-strong, and strong category of market efficiency. In the weak category of market efficiency, stock prices will fully reflect all historical data such as historical stock prices, movements and trading volume. In the semi-strong category, the stock prices will reflect both historical data and publicly available information such as merger and acquisition, as well as political election information. Lastly, the market efficiency is strong when stock prices reflect all relevant information such as historical data, public and private information of firms. Thus, when the market is efficient, it will be difficult for investors to gain abnormal return in the long run (Al-Khazali, Leduc, Alsayed, 2016;

Malkiel, 2011). The result is also supported by Nor and Wickremasinghe (2017) claiming that Malaysian stock market is gradually becoming weak-form efficient.

Several researchers have studied different stock markets by applying the EMH. Nonetheless, the EMH estimation for the Malaysian stock market seems groundless. For instance, Worthington and Higgs (2006) investigated fifteen Asian stock markets, including Malaysia, comprehensively, using serial correlation test. Their findings show that investors still earn abnormal returns in the Malaysian stock market in the short run, indicating the violation of weak efficiency. Hamid, Muhammad, Syad, and Rana (2010) also conducted a study to test the Asia Pacific market efficiency, including Malaysia's stock market. They claimed that investors could still benefit from arbitrage processes, an implication of weak market efficiency.

Capital Asset Pricing Model (CAP model)

Based on Markowitz's portfolio theory, Sharpe (1964), the winner of 1990 Nobel Prize Winner in Economic Sciences and Linter (1965), developed market models that explained assets' risk-return relative to that of the market profile. This concept forms the fundamental construct of the mean-variance CAP model and the security market line (SML). Besides risk-free assets, the CAP model expresses that any investments made by investors must be compensated accordingly due to the additional risks they assume.

The CAP model denotes that expected market return is the summation of risk-free rate and risk premium. The CAP model is often used as the yardstick to determine the stock's required rate of return against the overall market risk, namely, systematic risk. The beta in the CAP model indicates the sensitivity of stock returns which co-moves with the market.

The standard CAP model has been applied and tested over and over again for the past 30 years. For instance, Wakyiku (2010) tested the validity of the CAP model by applying ten out of eleven firms' monthly stock return listed on the Uganda Stock Exchange for a period of 33-months. His findings suggested a weak significant link between systematic risk and return of the ten Uganda firms' stock listed on its exchange. Similar result was also discovered by Da, Guo, and Jagannathan (2012). From 2003 to

2007, Rehman et al. (2013) also employed the conventional CAP model to examine whether stocks are correctly priced on Karachi Stock Exchange. Their results from their standard CAP model could validate the Karachi stock market.

Despite the mounting evidence that validate the explanatory power of the standard CAP model, many researchers are not completely satisfied with the CAP model. They claimed that a single risk factor based on the market risk is not sufficient to explain the returns on an asset (Dempsey, 2013; Krause, 2011; Mattev, 2004). Reviewing studies related to the Malaysian stock market, Isa, Hassan, and Yong (2008) investigated the applicability of the CAP model in explaining risk-return relationships in the Malaysian stock market from 1995 to 2006. By using the linear regression approach, their results indicated that the CAP model with constant beta and time-varying beta were statistically insignificant. Based on these reviews, it can be concluded that the CAP model was unable to predict return in every stock markets.

3. Freedom Indices and stock return

Economic Freedom and Stock Return

Fraser Institute (2013) defined "economic freedom" as an individual's independence to own, use, exchange, or give away private properties without abusing the rights of others. Economic freedom comprised of individuals' choices and abilities to safeguard their private properties, to engage in fair competition, as well as freedom to exchange assets (Gwartney and Lawson, 2003). Therefore, institutions and policies are necessary to safeguard an individual's economic freedom to perform voluntary exchange of assets without interruption. Properties owned by an individual must be protected from physical invasion.

Efforts have been carried out to assess the relationship between economic freedom and stock performance. For instance, Stocker (2005) found 1% increase in economic freedom is associated with a 2.7% increase in equity returns. Lawson and Roychoudhury (2008) claimed that stocks listed in the United States obtained higher stock return when economic freedom is improved. Smimou and Karabegovic (2010) found that economic freedom is positively associated with stock returns in the Middle

East and North Africa (MENA) stock markets from 2000 to 2007. Luo (2014) explored the relationship between Economic Freedom Index and equity market volatilities for 22 emerging countries, including Malaysia, from 1995 to 2010. The results showed that 'regulatory efficiency' and 'limited government' exhibit strong significant relationship in explaining stock market volatility.

These past literatures indicate that economic freedom acts as an important determinant of stock movement, especially in emerging markets. Hence, this study extended the standard CAP model by incorporating the economic freedom variable to improve the explanatory power of the model. The CAP model is extended to ascertain the following hypothesis:

H1: There is a positive relationship between economic freedom index and stock returns.

Political Freedom and Stock Return

According to Cooray (2012), political freedom is described as the ability of a nation to limit its government power and the right to protect individual's autonomy. Kekic (2007) agreed with how Freedom House defines political freedom. He further explained that political freedom meant much more than just electoral democracy. According to him, political freedom defined by Freedom House comprised of political rights and civil liberties. The former covers electoral process and multi-political system, functioning of government and individual involvement.

Dawson (1998) employed Gastil's political rights and civil liberty indices to measure its effect on economic growth. His findings illustrate how political and civil liberties might affect economic growth through investment. Roll and Talbott (2003) indicated that more than eighty percent of cross-country variation in wealth is supported by strong political and property rights, civil liberties, freedom of press, and increased government spending. From 1980 to 1998, Weller and Singleton (2004) studied how political freedom affect financial crises such as banking crises and currency crises in emerging economies like Malaysia. Their results showed that civil liberties, which represent human rights, lowered the probability of banking and currency crises. Hence, based on these literatures, the hypothesis 2 is developed.

H2: There is a positive relationship between democracy index and stock returns.

Press Freedom and Stock Return

Stevenson (1994) defined "press freedom" as:

"The rights to speak, broadcast, or publish without prior restraint by or permission of the government, but with limited legal accountability after publication for violations of law. It may also encompass legal guarantees of (i) reasonable access to information about government, business, and people; (ii) a right to reply or correction; (iii) a limited right of access to the media; and (iv) some special protections for journalists" (p.120-121)."

Press freedom can be expressed as media independence. In other words, media is allowed to update and report news to the public. Press Freedom Index allows governments, international organisations, academics, as well as the media to access a diverse variety of news and information worldwide (Karlekar and Dunham, 2012). Many researchers claimed that press freedom is crucial to a country as it showed how the government of a country protected its citizens' rights to freedom of speech and voiced their views democratically.

According to Fama (1970), the efficient market hypothesis illustrated that the degree of free press accounted for stock market performance. The former also affected the amount of return earned by investors. Unlike economic freedom and political freedom, high degree of press freedom tends to lower the amount of returns earned by investor. Fang and Peress (2009) stated that newspaper plays an important role to disseminate information to a broad amount of individual investors. They also stated that the extent of information dissemination also affected stock return. When press freedom of a country is improved, Lehnert (2014) found that disclosure of negative news will cause a more regular adverse jumps of stock prices, eventually leading to negative stock return. Hence, this study explores how the freedom of press relates to stock return in Malaysia by proposing the following hypothesis 3.

H3: There is a negative relationship between press freedom index stock returns.

4. Methodology

Data used for this study is sampled from the main market listed in Bursa Malaysia. The sampling period of this study ranges from 2003 to 2013, aimed to incorporate three consecutive Malaysian elections (21 March 2004, 8 March 2008, and 5 May 2013) in the study. This study includes firms from 12 sectors of the main market listed in Bursa Malaysia. Firms that are listed after 2003 are filtered out due to data unavailability. Hence, data from 495 firms are analyzed. These 495 firms are listed in the construction (30 firms), consumer (74 firms), finance (27 firms), hotel (4 firms), industrial (152 firms), infrastructure (5 firms), plantation (31 firms), mining (1 firm), properties (54 firms), technology (12 firms), and trade and services (104 firms), real estate investment trust (1 firm) sectors.

The daily adjusted closing of stock prices, FBM KLCI is the proxy for market returns and the 3-month treasury bill rates of Malaysia is the proxy for risk free rates. The firms' market value is collected from Thomson Financial Datastream Database. The annual aggregate scores for economic freedom index (EFI), democracy index (DI), and press freedom index (PFI) are obtained from Fraser Institute and Freedom House official websites. See Table 1 for details.

Table 1: Data Sources for Freedom Indices

Freedom Index	Key Components	Score	Source
Economic Freedom Index (EFI)	1. Size of government 2. Legal structure and security of property rights 3. Access to sound money 4. Freedom to trade internationally 5. Regulation of credit, labour, and business	0(least freedom)-10(most freedom)	Fraser Institute Official Website
Democracy Index (DI)	1. Political rights 2. Civil liberties	1(most freedom)-7(least freedom)	Freedom House Official Website
Press Freedom Index (PFI)	1.Legal environment 2.Political environment 3.Economic environment	0(most freedom)-100(least freedom)	Freedom House Official Website

Freedom House (2015) exhibits higher scores for lower democracy and press freedom. Thus, a '-' sign of the regression coefficients of DI and PFI indicate that they

are positively associated with stock return, and vice versa. This study uses the change on absolute value of each freedom indices rather than the absolute level of the freedom indices. The discounted cash flow of the equity-pricing model stated that only changes in cash-flow expectations and discount rate will alter equity values (Stocker, 2005).

Estimation model

Let R_{it} denotes the returns for security *i* at day *t. For* each security, the excess return of each day is estimated using the following procedures:

$$R_{it} = ln\ (p_{i,t}/p_{i,t-1})\ x\ 100\% \quad (1)$$

Once the daily excess returns for each security *i* is computed, it is then used to compute the average annual excess return and the annualised excess stock return. The standard CAP model developed by Sharpe (1964) and Stocker (2005) is adjusted to reflect the Malaysian context. It is by incorporating the Economic Freedom Index (EFI), Democracy Index (DI), and Press Freedom Index (PFI) into the standard CAP model. Since the equilibrium relation of standard CAP model is expressed in terms of expected returns, it is needed to test the model using historical data. The cost of equity measurement for this model can be written as follows:

$$R_{it} - R_{ft} = \alpha_i + R_{im}\left(R_t^m - R_t^f\right) + \beta_{iEFI}EFI_t + \beta_{iDI}DI_t + \beta_{iPFI}PFI_t + \varepsilon_t^i \quad (2)$$

where (R_{it}) denotes expected return of stock *i* at time *t*, R_f denotes risk free rate, R_{if}–R_{ft} denotes the function of the excess return on the market portfolio, *EFI* denotes the change of aggregate score of Economic Freedom Index, DI denotes change of aggregate score of Democracy Index, *PFI* denotes change of aggregate score of Press Freedom Index, β_{im}, β_{iEFI}, β_{iDI}, β_{Ipfi} denotes coefficient of market risk, EFI, DI, and PFI, and ε_t^i denotes the error term at time *t.*

Equation (2) is initially estimated by using two different approaches but both are using pooled OLS. The first approach estimated the model with the exclusion of firm size effect. Then, the second approach estimated the model by controlling the firm size effect using the same set of samples. The firm size, measured in terms of market value,

is divided into three different categories, small 25%, medium 50%, and large 25%. This firm size distribution is categorised based on the Gibrat's Law (Gibrat, 1931). The main reason to run the second model is to control the firm size effect on freedom indices and stock return. Moreover, it also serves as a robustness check for the first approach.

5. Findings

Table 2 describes the independent and dependent variables used in this study. $R_{it}–R_{ft}$, the dependent variable, shows the average excess returns of 31.58%. However, the standard deviation of returns associated with the sample of firms is high. Among the four explanatory variables - RP, EFI, DI, and PFI, only EFI, DI, and PFI are the main focus of analysis. EFI yields the highest mean which is 1.21%. In other words, the average growth of EFI is 1.21%, the highest compared to DI (1.12%) and PFI (-0.90%). Furthermore, EFI also yields the lowest standard deviation of 2.06%, as compared to PFI and DI.

Table 2: Stock Return, Risk Premium and Freedom Indices

Variable	Mean	Median	Maximum	Minimum	Standard Deviation
$R_{it}–R_{ft}$	31.58	7.41	14743.46	-99.46	224.98
RP	16.15	18.06	66.30	-53.56	29.14
EFI	1.21	0.31	5.30	-1.96	2.06
DI	1.12	0.00	8.89	-4.17	4.32
PFI	-0.90	0.00	4.62	-5.80	2.71

Note:

1. $R_{it}–R_{ft}$ denotes the excess returns of Bursa Malaysia Main Market Stocks; RP denotes the market risk premium which is the only risk factor for the traditional CAP model; EFI denotes the change of aggregate score of Economic Freedom Index; DI denotes the change of aggregate score of Democracy Index; PFI denotes the change of aggregate score of Press Freedom Index.

Pearson Correlation

According to Gujarati (1995), multicollinearity is not be a serious issue if the correlation coefficient is less than the threshold of 0.80. Table 3 illustrates the Pearson correlation analysis and the results infer that there are no serious multicollinearity problem among the variables. All the correlation coefficients of PFI and EFI are below 0.57, less than the threshold of 0.80.

Table 3: Correlation Matrix

Variables	$R_{it}–R_{ft}$	RP	EFI	DI	PFI
$R_{it}–R_{ft}$	1.00				
RP	0.17***	1.00			
EFI	-0.01	-0.04***	1.00		
DI	-0.07***	-0.38***	-0.19***	1.00	
PFI	0.00	-0.05***	0.57***	-0.19***	1.00

Panel Unit Root Test

All series are tested for possible unit root problem. The panel unit root test is tested before the regression estimation is performed. The panel unit root test is used due to its ability to overcome low power and large-size distortions (Perman & Stern, 2003). In this study, two different panel unit root tests namely Levin, Lin, and Chu (2002) (LLC hereafter) test and Im, Pesaran, and Shin (2003) (IPS hereafter) test are employed.

Table 4, overall, the widespread to reject the null of non-stationary is attributed to high power and assumes that the series is stationary. Thus, it can be concluded that the variables are stationary at level.

Table 4: Panel Unit Root

Variable	Method	Level		
		Individual intercept	Individual and trend	intercept
$R_{it}–R_{ft}$	LLC	-100.83***	-88.94***	
	IPS	-48.47***	-18.28***	
RP	LLC	-115.68***	-95.25***	
	IPS	-69.02***	-29.27***	
EFI	LLC	145.22	241.18	
	IPS	-34.82***	-9.55***	
DI	LLC	-46.03***	-78.41***	
	IPS	-17.01***	-31.57***	
PFI	LLC	-178.15***	-2.55***	
	IPS	-129.42***	-15.38***	

Note: ***, **, and * indicate significance at 1%, 5%, and 10% levels respectively.

Regression Analysis

Based on the unit root tests, each stock is considered to be time-invariant and each of them shares the same predictor variables (market risk premium, economic freedom index, democracy index, and press freedom index). Thus, the fixed and random effects are not suitable in this study as the inferences may be incorrect (Torres-Reyna, 2007). In addition, Glenn (2011) claimed that the model is not efficient under the Hausman test

variance. Thus, pooled OLS is used in this study to provide unbiased and consistent estimates of parameter (as shown in Table 5).

Table 5: Standard and Extended CAP model of Pooled OLS Regression

Explanatory Variable	Standard CAP model Estimated Coefficient	Extended Model Estimated Coefficient
Constant	10.90***	13.74***
RP	1.28***	1.28***
EFI		-1.07
DI		-0.17
PFI		1.41*
R-square	0.03	0.03
Adjusted R-square	0.03	0.03
F-statistics	174.22***	43.88***
Durbin-Watson Statistics	1.34	1.34
Sample Size	5445	5445

Note:
1. RP denotes market risk premium; EFI denotes economic freedom index; DI denotes democracy index; PFI denotes press freedom index.
2. Robust standard error using the option White (diagonal) is reported in Parantheses.
3. ***, **, and * indicate significance at 1%, 5%, and 10% levels respectively.
4. The results are based on Pooled Ordinary Least Square (Pooled OLS) regression.

As shown in Table 5, the adjusted R-square of the extended model is slightly lower than the standard model. In addition, *H1* and *H2* are not supported at 1% level of significance. Hou and Van Dijk (2019) and Pandey (2001) offer one possible explanation for these findings. They reasoned that firm size, proxy for market capitalization, plays an assertive role in expected stock returns in Malaysia. On the other hand, *H3* shows weak significant result between press freedom index and stock returns. These findings support EMH Theory and is consistent with Fang and Peress (2009). Lehnert (2014) also found that stock return is negatively associated with country's press freedom level. Freedom of press helps to provide a favourable business climate which in turn promotes investment and improves information efficiency.

When the market is efficient, the current stock price will fully reflect the available information. Consequently, it reduces the chances of asymmetric information that restrict investors to gain abnormal profit from the stocks that they invested in (Fama, 1970). In a nutshell, freedom of press helps to promote market efficiency and reduce investors' chances to earn excess return in stocks.

Robustness Test

Although PFI could significantly explain stock return, it yields low R-square and adjusted R-square. In measuring investment risk and return, Kothari, Shanken, and Sloan (1995) suggested that there was stronger relationship between beta and return when annualised beta was used, instead of monthly beta. In their study, firm size, that represented market capitalization, caused the relationship between average return and beta to differ. This finding was also consistent with Berk (1996)'s study who proved that firm size helped to increase explanatory power of the single beta model.

A related technical issue is that economic, political and press freedom indices are only available on annual basis, while firm-specific variables such as size is collected by monthly basis (Chen et al., 1998). Although firm size can improve the explanatory power of CAP model, it is not suitable to run on the same regression estimation that includes both firm size as well as freedom indices. Hence, size (measured using market capitalization) is used as a control variable for both standard CAP model and extended model. Besides, it also serves as a robustness check as shown in Table 5.

The firm size effect on the performance of stock return and freedom indices of 495 stocks listed in the main market was checked. Gibrat's (1931) size distribution approach is used to classify the stocks into three groups, namely small (25%), medium (50%), and large (25%). Table 6 indicates the results of the regression models of main market stocks by considering firm size effect using standard and extended version of CAP model.

Based on the results shown in Table 6, the R-square and adjusted R-square of both models are closed to the results obtained in Table 5, which does not control for firm size. In addition, both "Medium 50%" and "Large 25%" regression models exhibit higher R-square and adjusted R-square than previous standard and extended CAP model models without considering size effect.

Table 6: Summary of Regression Results with Firm Size Effect

	Small 25%		Medium 50%		Large 25%	
	Standard Model	Extended Model	Standard Model	Extended Model	Standard Model	Extended Model
Constant	13.35	30.06**	7.13***	3.67*	12.65***	15.27***
RP	1.29***	1.44***	1.12***	1.11***	1.42***	1.34***
EFI		13.59*		3.77*		-0.43
DI		2.73		-0.42		-1.37
PFI		6.34**		0.51		-0.84
R^2	0.01	0.01	0.09	0.09	0.11	0.12
Adjusted R^2	0.01	0.01	0.09	0.09	0.11	0.11
Durbin-Watson Stat	1.24	1.23	1.63	1.62	2.04	2.04
Observation	1373	1373	2695	2695	1377	1377

Note:
1. RP denotes market risk premium; EFI denotes economic freedom index; DI denotes democracy index; PFI denotes press freedom index.
2. Robust standard error using the option White (diagonal) is reported in parentheses.
3. ***, **, and * indicate significance at 1%, 5%, and 10% levels respectively.
4. The results are based on Pooled Ordinary Least Square (Pooled OLS) regression.
5. Freedom House (2015) exhibits higher scores of both democracy and press freedom indices associate with lower political freedom and press freedom. Thus, a '-' sign of the regression coefficient of DI exhibits a positive relationship with stock excess returns whereas a '+' sign of regression coefficient of PFI exhibits a negative relationship between press freedom index and stock excess returns.

Table 6 illustrates that *H1* is weak significant at 10% significance level for "small 25%" and "Medium 50%". Besides, *H3* is showing significant result at 5% significance level. Thus, based on these results, it is concluded that firm size does matter to explain the relationship of stock returns in Malaysia. Several studies have found that information environment improved in tandem with the firm size. Ahmed and Courtis (1999); Arjoon, Bougheas, and Milner (2016); Zarzeski (1996) are the recent examples to perform such studies. Theoretically, there is no clear reason to support the relationship between firm size and information disclosure, however, it might be attributed to public pressure on information and international resource dependence. Other possible explanations could be large companies are under greater political pressure than smaller size companies. To avoid this to happen, large companies will voluntary disclose more firm-specific information to the public. In addition, it is claimed that large firm will have better information environment than small firms. Therefore, 'Large 25%" group yields the highest R^2 and adjusted R^2 which meant that all these freedom indices have more influential on larger firm size and thus yields highest explanatory power than "Medium 50%" and "Small 25%".

6. Discussion and Recommendation

The findings in this study advocates that risk is multifaceted in emerging financial market like Malaysia. Other than beta, the risk of the Malaysian stock market may come from various sources, namely, economic freedom, press freedom, as well as firm size. Economic freedom creates more economic opening for the inflow of foreign investments.

The Ministry of International Trade and Industry and its investment arm, The Malaysian Investment Development Authority may need to improve economic freedom in Malaysia in order to have a better stock market performance. On the other hand, press freedom is also an important mechanism to allow accessibility to information, especially events that will affect asset prices. Accurate information will affect the confidence of market participants and their investment decisions. Thus, policy makers should not restrict the media's role in constituting, fostering, and nurturing free flow of information. By doing so, the efficiency of the market could be enhanced and the country's economy could be improved in the long run.

Although the incorporation of freedom indices could not improve much on the explanatory power of the standard CAP model in Malaysia's stock market, it serves as a richer set of asset pricing model that better reflects the risk-return analysis. The findings from this study may be specific to the Malaysian stock market but it remains an avenue for further research to extend the CAP model by including other measurements of freedom indices.

7. Conclusion

The main objective of this study is to investigate whether the CAP model improves its predictability of the Malaysian stock market with the inclusion of economic, political, and press freedoms for the sampling period from 2003 to 2013. In summary, the findings show that market beta jointly with other freedom indices such as economic and press freedoms are able to explain stock returns across the Malaysian stock market. Although firm size is included as control variable in the model, it improves marginally the predictability of the extended CAP model which incorporated the economic, political, and press freedom indices.

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