

Foreign Direct Investment, Economic Freedom and Democracy

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ABSTRACT

This study examines the simultaneous role played by economic freedom and democracy in attracting foreign direct investment (FDI) inflows. In order to investigate this relation, data from a sample of 87 countries over the period of 1981-2010 is employed. The main finding shows that the influence of economic freedom on FDI inflows is positive and significant. However, the results suggest that the democracy has no significant role in attracting FDI. The findings indicate that there is no evidence to support the idea that simultaneous occurrence of economic freedom and democracy are required to attract MNEs presence. Instead, the results reveal that improvement in economic freedom alone is sufficient to attract more FDI inflows. This finding is not consistent with Friedman's view that free markets and political freedom are inseparable. Obviously, MNEs respond only to improvement in freedom of economic activity but not the level of democracy.

JEL Classification : O10, O17, F21

Keywords: Foreign Direct Investment; Generalized Method of Moments; Economic Freedom; Democracy

INTRODUCTION

There are several reasons to believe why economic freedom acts as an important pre-condition for attracting FDI inflows. It could be expected that domestic investment climate in FDI recipient countries affect a foreign investor's decision to send the FDI in a country (Quazi, 2007). Moreover, in an ideal free economy, individuals are free to invest in any way they wish;

to move their labor, goods, and capital; and to gain much freedom to manage their business. In that economy, MNEs have more freedom to import desired materials, equipment, capital,

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or even the labor; and export their production. Thus, it is expected that the MNEs enjoy and benefit more where the economic freedom is higher.

This study argues that economic freedom alone is not sufficient to guarantee sustained flows of FDI. In order to sustain MNEs presence in the long run, economic freedom should be complemented with a good quality of democracy. In other words, this study hypothesizes that simultaneous occurrence of both economic freedom and democracy is important in attracting FDI inflows. Friedman (1962) suggests that free markets and political freedom are inseparable. “It is widely believed that politics and economics are separate and largely unconnected such that individual freedom is a political problem and material welfare is an economic problem”. Friedman (1962) believes that the economic freedom is an “indispensable means toward the achievement of political freedom”. He called such beliefs as “a delusion” and promotes economic freedom as both essential freedom in itself and a very important means for political freedom. He argues that “the relationship between political freedom and economic freedom is complex and by no means unilateral” (pp. 7–10).

There are several reasons to believe that why the simultaneous existence of both political and economic freedom is important to guarantee continuous and sustained inflows of FDI. Firstly, “property rights” is a fundamental part of economic freedom. With protected property rights, people have more freedom to decide whether make use of their property, earn from it, or transfer it to anyone else. In addition, a good protection for property rights decreases uncertainty and encourages investments. As a result, a country with a secured system of property rights are more able to absorb FDI inflows (Siegan, 1997; Weimer, 1997). It has been widely accepted that MNEs are more willing to invest in country with a good protection of property rights (Mathur & Singh, 2013). However, it should be emphasized that protection of property right may not be sustained in undemocratic society. Clague *et al.* (1996) suggest that, in general, democracies grant greater protection of property rights than autocracies. Moreover, Friedman (1999) views property rights as “the most basic of human rights and an essential foundation for other human rights” (Friedman & Friedman, 1999: P.605). In other words, the protecting of property rights cannot be sustained without democracy.

Secondly, level of corruption is highly correlated with the level of economic freedom and empirical evidence show that less corrupt countries receive more FDI flows. It is expected that economies that are more corrupted have less capability to offer the right kind of economic climate for MNEs, such as personal property protection, the right to move capital in and out of the country, or the capacity of trade openness in the world markets. Accordingly, more corrupted economies get less FDI flows (Mathur & Singh, 2013). Moreover, higher level of democracy has a discouraging effect on corruption (Emerson, 2006) via its role in reducing rent seeking activities due to its system of checks and balances (Rodrik, 2000). According to this view, democracy is needed in ensuring low level of corruption.

Accordingly, this study investigates the simultaneous influence of economic freedom and democracy on FDI inflows. The specific objective of this study is to evaluate the simultaneous effects of economic freedom and democracy on FDI inflows. This study extends the literature

¹ The terms of “democracy” and “political freedom” are used interchangeably. Democracy is a form of government in which all people get an equivalent say in making the decisions that influence their lives; and the Political freedom is a central concept/the most important features of democratic societies (Arendt, 1993).

by investigating the simultaneous role of economic freedom and democracy in attracting FDI inflows. In the past, empirical studies have mainly focus on their impacts independently.

REVIEW OF THE LITERATURE

Several studies uncover the factors that may affect FDI inflows. Human capital, market size, infrastructure, trade openness, institutional quality, political and economic conditions are among important determinants of FDI (see for example, Noorbakhsh *et al.*, 2001; Tun *et al.*, 2012, among others). However, the literature on the impact of economic freedom on FDI is limited. Bengoa and Sanchez-Robles (2003), Quazi (2007), and Azman-Saini *et al.* (2013) focus on economic freedom as the primary determinant for FDI inflows in Latin America, Asian countries, and a sample of 75 countries, respectively, Bengoa and Sanchez-Robles (2003), using fixed effect panel data for a sample of 18 Latin American countries, find that economic freedom is a positive determinant of FDI inflows and that FDI positively effects economic growth in the host countries. Quazi (2007) employs a simple panel regression for a sample of seven East Asian countries over the 1995–2000 periods and finds that economic freedom, as a proxy for the “domestic investment climate,” is a significant and robust determinant of FDI. More recently, Azman-Saini *et al.* (2013) examine the role of economic freedom in attracting FDI inflows for 75 countries over the period of 1981 to 2005. They show that the positive impact of economic freedom on MNEs locational decisions to send FDI to a particular country is indisputable. They illustrate that higher economic freedom causes a more enabling business environment. The following two reasons are specified in their paper to believe why economic freedom is essential in attracting FDI. Firstly, to decrease transaction or production costs, the MNEs prefer less regulated economies, due to the high costs of doing business. Secondly, the MNEs send their investments to more free economies, because a high level of economic freedom guarantees them better legal protection of their assets.

In meanwhile, there are two opposing views on the impact of democracy on FDI inflows. One approach suggests a negative relationship between democracy and FDI. According to this approach, FDI harms democracy and decreases FDI spillover effects. Jessup (1999) indicates that MNEs choose autocratic regimes because of their lower executive constraints. Oneal (1994) suggests that a dictatorial regime’s economy provides more returns than a democratic regime’s economy in developing nations. A few empirical studies support the theoretical foundation for the negative impact of democracy on FDI. There are also some papers which report no significant impact of democracy on FDI. For example, Singh and Jun (1995) report that the influence of the Freedom House political rights index on FDI/GDP is not significant. Similarly, using data from 36 developing countries for the period of 1980-94, Noorbakhsh *et al.* (2001) finds no significant influence on FDI/GDP for two Freedom House indexes, and also for their average. Kucera (2002) employs the ratio of FDI inflows to world FDI inflows as a dependent variable and finds an insignificant result for political rights and civil liberties. In the meanwhile, Resnick (2001), Li and Resnick (2003), and Asiedu and Lien (2011) report a negative effect of democracy on FDI. Resnick (2001) examines links between democracy and MNEs behavior and find that higher levels of democracy discourage FDI investors. Li

and Resnick (2003), using data from 53 developing countries for the period of 1982 to 1995, state that democratic institutions reduce FDI inflows. Asiedu and Lien (2010) indicate that democracy in rich resource export countries has a negative impact on FDI inflows. They show that democracy only enhances FDI if the share of minerals and oil in total exports is less than some critical value.

Another view argues that democracy will have a positive impact on FDI inflows. Democratic institutions encourage FDI inflows, since they increase property rights protection and decrease risks, as well as transaction costs, for FDI investors. Accordingly, democratic institutions (e.g., human rights) lead democracies to obtain larger amounts of FDI inflows (Blanton and Blanton, 2007). There are several empirical studies which examine the theoretical foundation to explore whether MNEs prefer democratic countries for their investments. Addison and Heshmati (2003), using an unbalanced dataset of a large sample of countries, finds a positive effect of democracy on FDI flows. In addition, Busse (2003) empirically examine the complex relationship between democracy and FDI. They illustrate that investments by multinationals are significantly higher in democratic countries, thereby refuting the hypothesis that political repression fosters FDI. This result confirms the empirical findings by Harms and Ursprung (2002), which suggest that MNEs are attracted to invest in countries that protect political rights and civil liberties. Blanton and Blanton (2007); employing a time-series cross-sectional data over the time period of 1980 – 2003, focus on non-OECD countries. They suggest a positive relationship between FDI and human rights. Two years later, Blanton and Blanton (2009) use an OLS regression to analyze U.S. FDI panel data of ten sectors over 1990–2004. Their results suggest that human rights determine FDI, especially in sectors that employ highly skilled workers.

Furthermore, a number of recent papers investigate the influence of democracy on FDI flows using sectoral FDI data. Kucera and Principi (2014) evaluate the U.S. FDI for 54 countries. They find a greater positive influence for service sectors, rather than manufacturing industries. Complementing this, Hecock and Jepsen (2014) confirm that using non-aggregated data will alter the results. Using data across 15 Latin American countries from 1986 to 2006, they find substantial variation in the causes and characteristics of FDI across sectors. Moreover, Hecock and Jepsen (2014) confirm the results in Kucera and Principi (2014); they show that the positive effect of democracy on FDI is greater for service sectors than manufacturing industries.

Simultaneous Impact of Economic Freedom and Democracy on FDI inflows

The link between the two freedoms (i.e., economic Freedom and democracy) and its impact on the economy have long been proposed. Friedman (1962) suggests that free markets and political freedom are inseparable. “It is widely believed that politics and economics are separate and largely unconnected; that individual freedom is a political problem and material welfare is an economic problem.” He called such beliefs “a delusion.” Hence, he promotes economic freedom as both an essential freedom in itself and a very important means for political freedom (pp. 7–10). He argues that the relationship between democracy and economic freedom is complex and by no means unilateral.

The idea of inspiration between economic freedom and democracy has been tested by Wu and Davis (1999), who investigate the relationships among the two freedoms, economic growth,

and development. They find a fundamental effect of economic freedom in fostering economic growth and a high level of income as the condition of a high degree of political freedom. Recently, Sambharya and Rasheed (2015), using a sample of 95 countries for the 1995-2000 time period, suggest that economic freedom and political freedom lead to higher FDI inflows. Based on this research which investigates the impacts of these two factors separately, they suggest less intervention by governments so they can absorb more FDI inflows.

As is recognized in the literature, the results of an investigation on the impact of democracy and FDI are mixed. To find a solution, Mathur and Singh (2013) focus on the intermediate role of economic freedom and corruption perceptions. Their results may help answer the question of why countries that rank poorly on the democracy index, like China and Singapore, are successful in attracting FDI inflows. They indicate that countries with a higher level of democracy may attract less FDI inflows if economic freedoms are not guaranteed. Moreover, less corrupt countries have a better chance of receiving more FDI inflows. These results are in line with the hypothesis in this study. However, it is now apparent that the literature has mainly tested the impacts of economic freedom and democracy on FDI inflows independently. Consequently, this study intends to fill this gap in the literature.

METHODOLOGY

Model Specification

This study follows a model proposed by Cheng and Kwan (2000) which expresses the current value of FDI as a function of past FDI. The reason for the inclusion of past FDI and explanatory variable is because MNCs decision to invest in a particular country depends on the success of past investment, which is indicated by the stock of past FDI in the country. Moreover, it is assumed that FDI by MNEs will take time to reach its desired level (Kinoshita and Campos, 2003). Therefore, the adjustment process for FDI is assumed to follow the following form:

$$\Delta FDI_{i,t} = \theta(FDI_{i,t}^* - FDI_{i,t-1}) \quad (1)$$

where $\Delta FDI_{i,t} = FDI_{i,t} - FDI_{i,t-1}$ and $FDI_{i,t}^*$ is the steady-state level of the FDI stock. By rearranging the above equations, we obtain:

$$FDI_{i,t} = (1 - \theta) FDI_{i,t-1} + \theta FDI_{i,t}^* \quad (2)$$

where θ must be less than one for stability. The literature suggests several other factors that may affect the volume of FDI inflows. Here the factors of economic freedom and democracy are added in equation (3) as factors that may affect the volume of FDI inflows. With this information, by rearranging the equation (2) the equation (3) can be extended as follow:

$$FDI_{i,t}^* = \lambda DEM_{i,t} + \gamma EF_{i,t} + \delta X_{i,t} + \mu_{i,t} \quad (3)$$

where $DEM_{i,t}$ denotes the index of democracy, λ is its coefficient, $EF_{i,t}$ symbolizes the economic freedom, γ is its coefficient, $X_{i,t}$ represents the vector of control variables, and $\mu_{i,t}$ denotes the error term. With these changes, equation (3) can be expressed as follows:

$$FDI_{i,t}^* = \lambda DEM_{i,t} + \gamma EF_{i,t} + \rho EF_{i,t} \times DEM_{i,t} + \delta X_{i,t} + \mu_{i,t} \quad (4)$$

To test the simultaneous effect of economic freedom and democracy on FDI, an interaction term constructed as $EF_{i,t} \times DEM_{i,t}$ is added to the model. Substituting equation (4) into (2) yields the following equation:

$$FDI_{i,t} = \alpha + \beta FDI_{i,t-1} + \lambda DEM_{i,t} + \gamma EF_{i,t} + \rho(EF_{i,t} \times DEM_{i,t}) + \delta X_{i,t} + \mathcal{E}_i + v_{i,t} \quad (5)$$

where α stands for a vector of parameters, and β denotes the coefficient of lag dependent variable.

Dynamic Panel Generalized Method of Moments (GMM)

The pooled OLS estimation is a simple and suitable methodology for static cross-sectional data analysis. However, this method creates two major weaknesses. Firstly, it fails to control the unobserved country-specific (fixed) effects. Secondly, it fails to account for the potential endogeneity problem. It is assumed that in equation (5) the $\mu_{i,t}$ term has two orthogonal components: the fixed effects \mathcal{E}_i , and idiosyncratic shocks $v_{i,t}$. Therefore, the disturbance follows an error component model as $\mu_{i,t} = \mathcal{E}_i + v_{i,t}$ where $\mathcal{E}_i \sim IID(0, \sigma_{\mathcal{E}}^2)$ denotes the unobserved country-specific effect, and $v_{i,t} \sim IID(0, \sigma_v^2)$ is the error term. Since $FDI_{i,t}$ is a function of \mathcal{E}_i , it follows that $FDI_{i,t-1}$ is also a function of \mathcal{E}_i . Therefore, $FDI_{i,t-1}$ is correlated with the error term. This makes the OLS estimator biased and inconsistent even if the $v_{i,t}$ is not serially correlated. The method of fixed effects is designed to control the unobserved country-specific time-invariant effects in the data. However, using the method of fixed effects, one of the issues is that the approach does not address the problem of endogeneity either, and without time dummies it does not control the unobserved common time effects among countries.

The most widely used alternative is dynamic panel estimation technique. In this study, the generalized method-of-moments (GMMs) estimator is used to test the simultaneous impact of economic freedom and democracy on FDI inflows. This estimator has been used in the analysis of finance-growth link (Levine *et al.*, 2000; Beck *et al.*, 2000; Azman-Saini & Smith, 2011), FDI-growth link (Azman-Saini *et al.*, 2010), R&D spillovers (Chee-Lip *et al.*, 2015), among many others. Following Arellano and Bond (1991), equation (6) is transformed into first differences to eliminate country-specific effects:

$$FDI_{i,t} - FDI_{i,t-1} = \alpha + \beta(FDI_{i,t-1} - FDI_{i,t-2}) + \gamma(EF_{i,t} - EF_{i,t-1}) + \rho[(EF_{i,t} \times DEM_{i,t}) - (EF_{i,t-1} \times DEM_{i,t-1})] + \delta(X_{i,t} - X_{i,t-1}) + (v_{i,t} - v_{i,t-1}) \quad (6)$$

Alternatively, the equation (6) can be written as follows:

$$\Delta FDI_{i,t} = \alpha + \beta \Delta FDI_{i,t-1} + \gamma \Delta EF_{i,t} + \rho \Delta (EF_{i,t} \times DEM_{i,t}) + \delta \Delta X_{i,t} + \Delta v_{i,t} \quad (7)$$

Arellano and Bond (1991) suggested that lagged level of independent variables are used as instruments. Under this analysis, two sets of conditions must be satisfied to ensure the validity of the results. First, the standard GMM condition of no second order autocorrelation in the error term and secondly, the lag of explanatory variables are weakly exogenous. In other words, the unobserved country-specific effect is not correlated with their differences even if it is correlated with the regressors' levels, i.e., the deviations of the initial values of the independent variables from their long-run values are not systematically related to the country-specific effects. Therefore, following Arellano and Bond (1991), the following moment conditions are set for equation (7):

$$E[FDI_{i,t-s} \cdot (v_{i,t} - v_{i,t-1})] = 0 \text{ for } s \geq 2; t = 3, \dots, T \quad (8)$$

$$E[Z_{i,t-s} \cdot (v_{i,t} - v_{i,t-1})] = 0 \text{ for } s \geq 2; t = 3, \dots, T \quad (9)$$

where Z is vector of dependent variables. In addition, Arellano-Bover (1995), Ahn and Schmidt (1995, 1997), and Blundell-Bond (1998) augments Arellano-Bond (1991) by making an additional assumption, that first differences of instrument variables are uncorrelated with the fixed effects. Accordingly, they construct a system of two equations, the original equation, as well as the transformed one, and it is known as system GMM. Based on this, equations (8) and (9) could be changed as follows:

$$E[FDI_{i,t-s} - FDI_{i,t-s-1} \cdot (\epsilon_i + v_{it})] = 0 \text{ for } s = 2; t = 3, \dots, T \quad (10)$$

$$E[Z_{i,t-s} - Z_{i,t-s-1} \cdot (\epsilon_i + v_{it})] = 0 \text{ for } s \geq 2; t = 3, \dots, T \quad (11)$$

By exploiting more moment conditions, the system GMM estimator can dramatically improve efficiency compared to the difference GMM estimator. Moreover, the system GMM is preferred to difference GMM since finite sample bias problems caused by weak instruments in first differenced GMM will be addressed by using system GMM. It also offers forward orthogonal deviations, an alternative to differencing that preserves sample size in panels with gaps. In addition, Alonso-Borrego & Arellano (1999) and Blundell & Bond (1998) show that when the explanatory variables are persistent, such as variable of economic freedom in our study, the lagged levels of the variables become weak instruments. They show that weak instruments may lead to biased parameter estimates in small samples and larger variance asymptotically.

The GMM estimators, both difference and system estimators can be applied in two ways, namely one and two-step (Arellano and Bond, 1991). The one-step estimators use weighting matrices that are independent of estimated parameters. In the presence of heteroskedasticity and serial correlation, the two-step estimator uses a consistent estimate of the weighting matrix, taking the residuals from the one-step estimate. Although the two-step GMM is asymptotically more efficient, it produces estimates of standard errors that tend to be downward biased.

However, this problem can be solved using the finite-sample two-step covariance matrix correction procedure proposed by Windmeijer (2005). This adjustment gives more efficient GMM estimates, especially for system GMM (Roodman, 2009).

Here two tests of Hansen/Sargan and AR (2) test must be considered. To test model specification validity, the Hansen/Sargan tests for over identification evaluate the entire set of over identifying restrictions. This test examines the lack of correlation between the instruments and the error term. Moreover, the AR (1) and AR (2) statistics measure first and second-degree serial correlations. The AR (2) test examines the hypothesis of no second-order serial correlation in the error term of the difference Equation (3.30). Failure to reject the null of both tests provides support to the estimated model (Arellano and Bond, 1991).

Data Description

This study uses a sample which consists of 87 countries over the period of 1981-2010. The data is divided into six non-overlapping five-year periods. The variables are either categorized as stock and flow variables. Stock variables are measured at the beginning of each five-year period and flow variables are measured as averages over the five-year period. Stock variables consist of population, human capital, democracy, and economic freedom. Flow variables consist of GDP, FDI inflows, domestic investment, and openness. All data are transformed into logarithmic form prior to the analysis.

The key variable FDI measured by the ratio of net foreign direct investment inflows to GDP, is taken from the World Development Indicator database. Other data on population, and life expectancy (i.e., a proxy for human capital), and the indicator of telephone lines per 100 people (a proxy for infrastructure) are also obtained from the World Development Indicator database. Additionally, data on GDP (i.e., measured by Real GDP at constant 2005 national prices (in mil. 2005US\$)), domestic investment (i.e., measured by capital stock at current PPPs (in mil. 2005US\$)), and openness (i.e., measured by Openness in Current Prices) are obtained from the Penn World Table database (version 8.0).

Data for democracy is collected from the Freedom House (2012) which provides both reports and numerical ratings for 192 countries. Each country is assigned a numerical rating and the total number of points awarded to the political rights and civil liberties checklists determines the political rights and civil liberties ratings. Each point total corresponds to a rating of one through seven, with one representing the highest and seven the lowest level of freedom. The ratings process is based on a checklist of 10 political rights questions (grouped into three subcategories) and 15 civil liberties questions (grouped into four subcategories). In this study, rating of the political rights is used to measure democracy. The original ranking from one to seven (with 1 representing the most score and 7 the least score) has been converted here to a scale from zero to one, where zero corresponds to the fewest political rights and one to the most political rights.

The index by the Fraser Institute is employed to measure the economic freedom. The index is developed based on three key notions: individual choice and voluntary transaction, free competition, personal and property protection. The index has five underlying components,

namely government intervention, legal structure and security of property rights, access to sound money, freedom to trade with foreigners and regulation of credit, labour and business. The index is scaled from 0 to 10 with 10 representing the highest level of freedom.

RESULT AND DISCUSSION

The first step of the analysis is to examine the influence of economic freedom on FDI inflows. As explained before, the difference-GMM estimator can be poorly behaved when the series are persistent, which is common in a short panel like our study. Therefore, the logical step to take is to utilize the two-step system-GMM estimator. However, the use of the two-step estimator in a small sample may not be optimal and the efficiency gain over the one-step estimator in hypothesis testing. Windmeijer (2005) suggests a procedure that improves the two-step estimator that makes correction to the variance-covariance matrix. Therefore, this study uses this methodological procedure and report result based on the two-step system GMM estimator

As shown in table 1, the results show that the coefficient of the main variable (i.e. economic freedom) is positive and significant. Specifically, the result shows that improvement in index of economic freedom by 1% will increase FDI inflows by 0.26%. This finding is consistent with the findings by Quazi (2007), Bengoa-Sanchez (2003), and Azman-Saini *et al.* (2013). They find that economic freedom is an important factor to attract FDI inflows by Asian and Latin American countries. In addition, the coefficients on market size, return on investment and human capital are positive and significant. However, the finding for democracy shows that democracy has negative impact on FDI.

Table 1: FDI and Economic Freedom

	Coeff.	S.e. [#]	p-value
Lag FDI _{it-1}	0.52	0.14	0.00
Market Size	0.13	0.04	0.00
Openness	0.00	0.00	0.12
Return on Investment	0.13	0.04	0.00
Infrastructure	0.00	0.01	0.76
Human capital	0.05	0.03	0.07
Economic freedom	0.26	0.14	0.06
Democracy	-0.03	0.01	0.01
Observation		435	
Instruments		18	
Arellano-Bond test AR(2) test (p-value)		0.44	
Hansen test (p-value)		0.61	

Notes: S.e. is robust standard error. [#] indicates standard errors corrected for finite samples following Windmeijer (2005). All variables are in logarithm form. The variable of FDI is the log of (1 + averages over the five-year period). Moreover, the variable of Democracy is the log of (1 + beginning of each five-year period). In addition, the original ranking from 0 to 7 has been converted here to a scale from 0 to 1, where 0 corresponds to the zero political rights and 1 to the most political rights.

The above result is consistent with other scholars such as Oneal (1994), Jessup (1999), Emmert and Tuman (2004), and Arslan and Ökten (2010) who find negative impact of democracy on FDI. They claim that democracy might influence negatively on FDI inflows because non-democratic government may provide labors at lower cost. Moreover, Jessup (1999) believes that MNEs choose autocratic regimes because of less executive constraint. Moreover, the results indicate that the coefficients on openness and infrastructure are not significant at the usual level. More importantly, the p-values of second serial correlation (i.e. AR (2)) and Hansen over-identification tests are big enough to conclude that the models are correctly specified and the instruments are valid.

The next step of the analysis is to evaluate the simultaneous influence of economic freedom and democracy on FDI inflows. To test the objective, the interaction specification is used which include an interaction term constructed as a product of economic freedom and democracy index is added to the baseline model. However, it should be noted that the inclusion of an interaction term may induce multicollinearity problem as the interaction term tends to be strongly correlated with the variables used to construct them (Darlington, 1990). Following two-step procedure is employed to remedy this problem: First, the interaction term is regressed on the variables of economic freedom and democracy. Second, the residuals generated from the regression in first step are used instead of the interaction term in our estimation (Burill, 2007). The result of estimating interaction specification is reported in table 2. The p-values of second serial correlation (i.e. AR (2)) and Hansen over-identification tests are 0.44 and 0.61 respectively. Accordingly, the null hypothesis is not rejected meaning that the models are correctly specified and the instruments are valid.

The main finding shows that the coefficient on the main variable (i.e. economic freedom) is positive and statistically significant at the level of 10%. However, the coefficient on democracy and also the interaction term EF x DEM is not significant at the usual level which suggests that the democracy has no significant effect on the FDI inflows. In addition, the coefficients on market size, return on investment, and human capital are positive and significant. Furthermore, the results indicate that openness and infrastructure do not affect FDI inflows.

Table 2: Simultaneous impact of EF and DEM on FDI inflows

	Coeff.	S.e. [#]	p-value
FDI _{it-1}	0.51	0.15	0.00
Market Size	0.14	0.04	0.00
Openness	0.00	0.00	0.20
Return on Investment	0.14	0.04	0.00
Infrastructure	0.00	0.01	0.75
Human capital	0.05	0.03	0.14
Economic freedom (EF)	0.26	0.13	0.06
Democracy (DEM)	-0.02	0.02	0.39
Interaction of EF x DEM	-0.01	0.03	0.64

Table 2 (Cont.)

Observation	435
Instruments	18
Arellano-Bond test for AR(2) (p-value)	0.44
Hansen test (p-value)	0.61

As a robustness check, the possible effect of outlier observations on the estimation results is assessed. The outliers are detected using Cook’s distance measure which is one of the most effective techniques specially when combined with graphic diagnostics like squared residuals versus Leverages plot (Blatná 2006). Cook's distance measure is a common statistical test that indicates the impact of an observation on the estimated regression coefficient. According to this procedure, the higher the Cook's distance value is, the more influential the corresponding point on the estimated regression. This study takes the conservative approach of using $4/N$ as a cut-off point following Bollen and Jackman (1990) and Blatná (2006), where N is the number of observations. The test results suggest that 16 countries are potential outliers which include Barbados, Benin, Chile, Republic of Congo, Costa Rica, Finland, India, Israel, Kenya, Malawi, Sierra Leone, Singapore, Sweden, Syria, and Zambia. The following figure, show a scatter plot of squared residual versus leverages. The observations with high combination of leverage and residual are influential points.

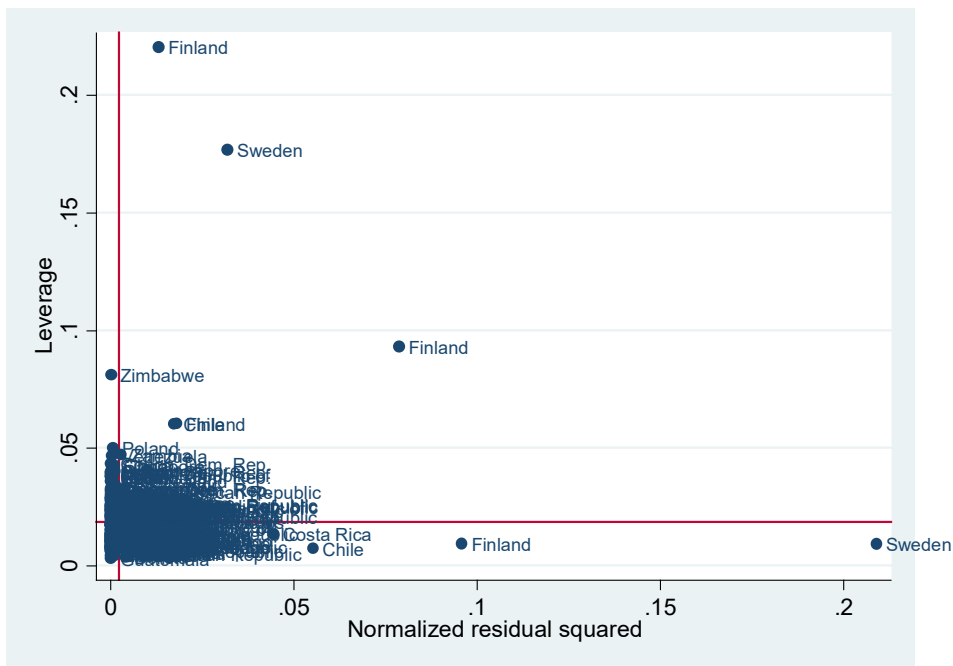


Figure 1: Identification of outliers, FDI determinants Insert figure 1 here

Table 3 presents a new result that excludes outliers. As shown in the table, the exclusions of outliers did not alter the results significantly. The new result suggests that coefficient on economic freedom is significant and the one on the interaction term remains insignificant. The

p-values of second serial correlation (i.e. AR (2)) and Hansen over-identification tests are 0.88 and 0.26 respectively. They are big enough to conclude that the models are correctly specified and the instruments are valid. The overall findings suggest that there is no evidence to support that simultaneous occurrence of economic freedom and democracy is important in attracting FDI inflows. This finding is not consistent with Friedman’s prediction that that free markets and political freedom are inseparable.

Table 3: FDI Determinants without Outliers

	Coeff.	S.e.#	p-value
FDI _{it-1}	0.56	0.18	0.00
Market Size	0.12	0.05	0.03
Openness	0.00	0.00	0.21
Return on Investment	0.12	0.05	0.03
Infrastructure	-0.01	0.01	0.38
Human capital	0.03	0.02	0.11
Economic freedom (EF)	0.28	0.17	0.09
Democracy (DEM)	-0.03	0.02	0.30
EF x DEM	0.00	0.03	0.93
Observation		360	
Instruments		18	
AR(2) test (p-value)		0.88	
Hansen test (p-value)		0.26	

CONCLUSION

This study investigates the simultaneous role of economic freedom and democracy in attracting FDI inflows. To investigate the simultaneous influence of democracy and economic freedom on FDI inflows, the interaction specification is employed. Using a dynamic GMM panel estimator, this study uses a sample which consists of 87 countries over the period of 1981-2010. This study’s primary finding illustrates that the impact of economic freedom on FDI inflows is positive and significant. However, the results suggest that the democracy (i.e. political freedom) has no significant effect on FDI inflows. More importantly, the findings indicate that there is no evidence to support our hypothesis that simultaneous improvements of economic freedom and democracy are required to attract MNEs. Instead, the results suggest that improvement in economic freedom alone is sufficient to attract more FDI inflows. This finding is not consistent with Friedman’s prediction that free markets and political freedom are inseparable. Hence, MNEs may only respond to improvements in the freedom of economic activities, not the level of democracy. There are many countries which experienced a good score of economic freedom but they are not democratic. The countries such as Bahrain, Qatar, Armenia, and United Arab Emirates are ranked among first 50 countries in economic freedom index; however, they are rated as non-democratic countries. These economies have succeeded to receive a significant amount of investments from MNEs. Accordingly, some non-governmental organizations

(NGOs) such as Amnesty International consider FDI as a tool of exploitation. The MNEs are blamed for contributing to the conditions that lead to human rights conflict. Therefore, the MNEs are reminded that they have a responsibility to contribute to the promotion and protection of human rights and democracy. The MNEs have been advised to promote greater social responsibility in their operations and improvement of democratic institutions.

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