LABOR MARKET FLEXIBILITY, FOREIGN DIRECT INVESTMENT AND ECONOMIC GROWTH IN MALAYSIA

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ABSTRACT

During the last two decades, foreign direct investment (FDI) has developed far more rapidly than international trade. The main contribution of FDI to host countries is inward flows of capital and technology that enhance innovation thereby potentially improving economic growth. The inflows of FDI will be depending on favorable location factors at host country like labor market condition. The labor markets at host countries play an important role to adapt the inflows from FDI. Host country with low levels of employment protection and flexible of labor market are commonly perceived to provide an environment conducive to investment. The purpose of this paper is to examine the role of labor market flexibility in mediating the impact of FDI on economic growth in Malaysia. This study employs Autoregressive Distribution Lag (ARDL) method proposed by Pesaran et al. (2001) on a comprehensive sample period from 1980 to 2010. The data for labor market flexibility based on the labor market regulation in Fraser index, growth based on gross domestic product (GDP) and FDI based on the inflows of foreign direct investment. In line with previous literature this paper finds that labor market flexibility has a positive impact on the volume of FDI at the same time enhance economic growth in Malaysia.

Keywords: *Labor Market Flexibility, Foreign Direct Investment (FDI), Autoregressive Distribution Lag (ARDL) and Malaysia.*

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1.0 Introduction

The labor markets at host countries play an important role to adapt the inflows from foreign direct investments (FDI). The labor markets should able to absorb the differences in the nature of technology employed by home countries as compared to host countries. Home countries have a bundle of intangible assets such as sophisticated product differentiation, organizational and management skill, and superior technology which provides some advantages to host countries. Theoretically, labor market institution at host country is one of the important determinant of FDI inflows and also location of Multinational Corporations (MNC's) decision and because of that, there is growing acknowledgment among government in developing countries that labor market reforms are necessary for attracting the inflows of FDI. Labor market institution must be protected by employment protection policies in order to make sure that foreign market did not taking advantage on host country labor market. Pissarides (2001) define an employment protection policies encompasses regulations, either legislated or written in labor contracts that limit employer's ability to hire or fire workers without delay or cost. However, the rigid labors markets will slow down an inward FDI due to a reduction in an investment's profitability because the labor market rigidities will impact of high adjustment and exit cost on FDI, whereas this will prevent MNC's from reacting to changes in the comparative advantage at the host

country. As a result, host countries government policies will affect the labor market indirectly to attract FDI.

The best alternative to increase quantity of FDI is host countries need to provide the universal flexibility of labor market. Host countries with low levels of employment protection and a flexible labor market are commonly perceived to provide an environment conducive to investment, employment and structural change. The labor market flexibility being one of the various determinants of FDI selection of a favorable location, thus the degree of the labor market flexibility is likely overtime influence FDI. Firms those seeking the maximization of profit are most interested to locate in countries with more flexible labor markets, which afford firms more freedom to adjust to prevailing economic conditions. The globalization of production processes by MNC has encouraged policymakers around the world to redesign their labor market regulations to provide greater flexibility to the operations of MNCs. The rationale is that increased flexibility in labor market regulations will make a host country more attractive to MNCs looking at alternative locations and will result in greater FDI. Location decision of MNCs points to the high priority attaching to labor market flexibility issues in determining the investment location. Thus the labor market flexibility will have a substantial impact on the nature of FDI and will affect the practices and behavior of inward investing organizations.

Labor market flexibility can be determined if the operation of market force are freely from the rigidities and/or restriction of powerful actors such as a monopsony employers, trade unions and government on the labor market. A flexible and efficient labor market, combined with a stable macroeconomic environment, implies an economy that is fairer, more competitive and more productive. It also implies an economy that is better able to adapt to the changing economic environment. Her Majesty's Treasury[1] (commonly known as HM Treasury) identify three basic 'overall' definitions of the labor market flexibility; (1) Flexibility as the speed with which the labor market can adjust in response to an economic shock; (2) A flexible labor market as one that exhibits a good equilibrium, i.e. a low structural unemployment rate; and (3) A flexible labor market as one that has institutional features that allow wages and employment to adjust smoothly and freely to equate supply with demand.

1.2   Problem statement

For many years, researchers have debated about the economic growth and total factor productivity. Among the key factors of growth and productivity are the level FDI and location of MNC's. One of the important motives of inflows of FDI and MNC's to invest in transition countries are exactly to capture of new markets. For this purpose, Babic and Strucka, (2001), it is important to know whether the market is a growing market. The growing market can be identified based on GDP of the host country, GDP per capita and growth rate of GDP. Larger host countries markets may be associated with higher FDI due to larger potential demand and lower costs due to scale economies. There are few factors at host countries that attract the location of MNC and investment decision. One of them is cost of labor. Relocation of production to regions with lower labor costs has been reported as an important or crucial motive of MNC for FDIs in developing countries. The location decision of MNC's points to the high priority attaching to labor market flexibility issues in determining the investment location.

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[1] Her Majesty's Treasury (HM Treasury) is the United Kingdom's economics and finance ministry.

1.3   Research question and objective of study.

The main question that arises here is does labor market flexibility play a significant role in mediating the impact of FDI on economic growth? To answer this question, we have to examine the role of labor market flexibility in mediating the impact of FDI on economic growth in Malaysia.

1.4   Conceptual framework

Based on the goal of this study, we propose a conceptual framework that diagrammatically reflects the intention.
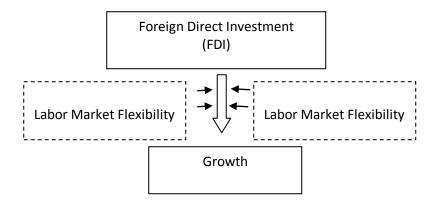
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            ┌─────────────────────────────┐
            │  Foreign Direct Investment  │
            │           (FDI)             │
            └─────────────────────────────┘
                           │
  ┌ ─ ─ ─ ─ ─ ─ ─ ─ ┐   ↓   ┌ ─ ─ ─ ─ ─ ─ ─ ─ ┐
    Labor Market Flexibility      Labor Market Flexibility
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                    ┌──────────────┐
                    │    Growth    │
                    └──────────────┘
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Figure 1: The Conceptual Framework.

1.5   Significant of the Study

This study contributes to the literature by providing the empirical evidence on the significant role of labor market flexibility in mediating the impact of FDI on the output growth. Bound test analysis is better way to understanding the relationship between the labor market flexibility and FDI and it can accommodate the meaningful possibility that FDI 'kicks in' on growth only after including the labor market flexibility.

1.6   The Scope of the study

Based on the arising issue that discusses previously, the further discussion need to be conduct to answer the issue. The selection of countries based on the developing countries over the 1980-2010 periods. In order to examine the role of labor market flexibility in mediating the impact of the economic growth, we estimate by using Autoregressive Distributed Lag (ARDL) based on Pesaran et al. (2001).

1.7   Organization of study

The rest of the paper is structures as follow. In section 2, we provide an overview of related empirical work on labor market flexibility, FDI and economic growth. In section 3, we describe the data set that we use and methodology to analyze. The empirical analysis based on Auto-regression distribution lags (ARDL) in section 4 and finally in section 5 is conclusion and recommendation.

2.0 Literature Review

The issues of FDI in promoting growth have been studies by numerous of researchers (i.e Lipsey (2000), De Mello (1997); Oliva and Rivera-Batiz, (2002); Ma (2009) and Choe (2003)). Some of them study the significant of FDI and growth on specific countries. Study on Latin America countries by Bengoa et al. (2003) for a sample of 18 countries for 1970-1999 shows that FDI is positively correlated with economic growth in the host countries and De Gregorio (1992) finds a positive and significant impact of FDI and growth in a panel of 12 countries over the period 1950-1985. Another country-specific studies that have explore the link between FDI and economic growth includes Mattaya and Veeman (1996) on Malawi; Kabarsi et al. (2000) on Egypt and Ouattara (2005) on Senegal. Dees (1998) found that FDI played an important role in promoting economic growth in China. By analyzes on a sample of OECD and non-OECD countries for the period 1970-1990, De Mello (1999) claimed that FDI has a positive impact on growth. In order for newly industrializing economy to catch up with the world's most advanced countries, Yao and Wei (2007) stress that FDI is a powerful driver of economic growth.

Bezuidenhout (2009), FDI is seen as a vital factor in inducing the growth rate, but only if the inflows is properly managed it will lead a growth. In other words, FDI generates "growth effects" only when the business environment is suitable that supported by Xu and Zhong (2011) which both home and host country characteristics significantly play crucial role in determining the FDI. The cyclical factors in the economies of home and the host countries seem to be an important factor for the magnitude of the FDI flows; not only these but some other factors such as trade openness index, human development index, population and infrastructure are also found to have significant factors motivating FDI inflow.

The inflows of FDI will depend on economic condition at host country especially the degree of labor market. Thus, the degree labor market flexibility is likely over time to be influenced by FDI, in addition to it being one of the various determinants of its selection of a favorable location in which to cite its production facilities. Thus, the technological and other competitive advantages inherent within FDI are likely to increase the productivity of skilled workers in the domestic sector (Barrell and Pain, 1997; Blomström, 1989; Driffield, 1999; Driffield and Taylor, 2000). Whyman and Baimbridge (2006) classified the determinants of FDI based on non-policy and policy factors and labor market flexibility include in policy factor is the of the host country. This factor can be considered vital in the choice of FDI host country because an entire production process is left to the hands of the host country labor force. In order to encouraging greater levels of foreign direct investment and establishment of MNCs, the national governments have to reduce labor market rigidities by increased internal flexibility necessitates both the legal authorization to engage in such practices and openness of nation. Study by Gunnigle and McGuire (2001) on the location decision of MNCs, points to the high priority attaching to labor flexibility issues in determining the investment location outcome. Therefore, it is likely that the approach adopted by national governments to labor market flexibility will have a substantial impact on the nature of foreign direct investment and will affect the practices and behavior of inward investing organizations.

Storey et al. (2002), labor market flexibility is fast becoming a key requirement for multinational organizations decision to make investment. A few studies indicate that MNC's give substantial weight to national differences in deciding upon levels of investment; i.e Cooke and Noble (1998); Cooke (2001); Ferner and Quintanilla (1997). Bentolila and Bertola, 1990; Cooke, 1997; Cooke

and Noble, 1998; Görg, (2002); Haaland et al, (2003); Dewit et al. (2003) indicate that flexible labor markets are significant attractors for FDI. Similarly with Haaland et al. (2003) in theoretical paper demonstrate a trade-off between FDI incentives and labor market flexibility and conclude that a country with a more flexible labor market should find it easier to attract FDI. Javorcik and Spatareanu (2004), suggest that greater flexibility in the host country's labor market is associated with a higher probability of investment taking place as well as with a larger volume of investment.

3.0 Methodology

To empirically analyze to role of labor market flexibility in mediating the impact of FDI on economic growth in Malaysia, we estimate the model based on method proposed by Pesaran et al. (2001) that is Autoregressive Distributed Lag (ARDL) or more precisely is bound test approach in order to estimate the relationship of labor market flexibility on FDI impact to economic growth in short run and long run.

3.1 Description of Sources of Data

The data set consists of time series over the 1980–2010 periods for Malaysia. GROWTH is the average growth rate of GDP per capita for country i in period t, FDI figures represent the net inflows of foreign investment to acquire a lasting management interest (i.e. 10 percent or more of voting stock) in domestic enterprise, and is expressed as a ratio to GDP; and LMF is labor market flexibility that can be measured by weighted average of three indicators; flexibility of hiring, conditions of employment and flexibility of firing and the data of FLM based on index in Fraser Index of economic freedom.

3.2 Model Specification

In order to analyze the role of labor market flexibility in mediating the impact of FDI on economic growth, the models develop with economic growth as dependent variable with the FDI and labor market flexibility as independent variables.

$$GROWTH_t = f\ (FDI_t, FDI\ x\ LMF_t)$$

$$GROWTH_t = \beta_0\ +\ \beta_1 FDI_{t-1} + \beta_2 [FDI_{t-1}\ x\ LMF_{t-1}] + \varepsilon_t$$

Based on the above model, by using the autoregressive distributed lags (ARDL), the model will be

$$\Delta GROWTH_t = \beta_0 + \beta_1 FDI_{t-1} + \beta_2 [FDI_{t-1}\ x\ LMF_{t-1}] + \sum_{i=1}^{3} \beta_{3i}\ \Delta GROWTH_{t-1} + \sum_{i=1}^{3} \beta_{4i} \Delta FDI_{t-1}$$
$$+ \sum_{i=1}^{3} \beta_{5i} \Delta\ [FDI_{t-1}\ x\ LMF_{t-1}] + \varepsilon_{t-1}$$

For the examination of long-run relationship the bound cointegration test based on critical values taken from Pesaran (2001) will be used the null and alternative hypotheses are as below:

$H_0: \beta 1 = \beta 2 = 0$ (No long-run relationship)
$H_1: \beta 1 \neq \beta 2 \neq 0$ (Have long-run relationship)

Variable	ADF Test Level		ADF Test First Difference	
	No Trend	Trend	No Trend	Trend
Growth	-2.64*	-2.14*	-4.67***	-4.88***
FDI	-3.65***	-3.17**	-6.01***	-5.72***
FDI x LMF	-3.82***	-4.35***	-9.31***	-9.18***

Note: The null hypothesis is that the series is non-stationary, or contain unit root. The rejection of null hypothesis for ADF and PP test is based on MacKinnon (1996) critical value. The symbol of ***, ** and * indicates the rejection of null hypothesis of non stationary at 1%, 5% and 10% significant level.

4.0 Discussion and empirical result

4.1 Result of the unit root test

A unit root test was done for the dependent variable using Augmented Dickey-Fuller (ADF) and Phillips-Perron test to satisfied the pre-requisite condition of the dependent variable being non stationary or contains a unit root in I(1) and stationary at I(0) as prescribed by Pesaran (2001). Based on ADF test statistic at Table 1, it was found that all series are stationary at level. With trend growth stationary at 10% significant level, FDI at 5% significant level and the interaction between FDI and labor market flexibility stationary at 1% significant level. At first difference ADF test, all variables are stationary at 1% significant level.

Table 1: Result for ADF test for the dependent variable

For the examination of long run relationship the Wald test (F-statistic) was calculated by imposing restriction on the estimated long-run coefficient as explained in this paper, we obtained a F-statistic of 98.67 with is greater than upper bound value (refer to Table 2), thus we can easily reject H_0 and can conclude that there is a long run relationship between the dependent variable total factor productivity with the independent variables. The bound test was applied to estimate the model, and the results are reported in Table 3.

Table 2: Bound Test for long run relationship between dependent and independent variables.

4.2   Short run and long run estimated coefficients.

Table 3: Result short-run and long-run coefficient

Variables	Short Run Coefficient	Long Run Coefficient
FDI	0.2360**	0.3021***
FDI x LMF	0.2965**	0.3790***

Note: The asterisks ***, **, * indicate the following levels of significance: 1%, 5% and 10%.

Table 3 indicates the relationship between FDI and interaction term of FDI with labor market flexibility to economic growth. The result show that, all the variables are significant determines the economic growth in Malaysian for the short run and long run. From the table 4, the interaction term of FDI with labor market flexibility is the main contributor in promoting economic growth, as we can see from the table, in short run the coefficient show that 29.65% contribute to the Malaysia economic growth and 37.9% in the long run. The result of FDI effect to Malaysia economic growth in short run is 23.6% and in long run is 30.21%. The main finding that we can conclude is, labor market flexibility play an important role in order to attract the inflows of FDI to Malaysia country and at the same time will boost country economic growth.

5. Conclusion and Recommendation

In line with the empirical discussion, the result of this paper found that labor market flexibility play an important role in mediating the impact of FDI on Malaysia economic growth. Country with

	Critical value	
	Lower Bound	Upper Bound
1 % significant level	3.74	5.06
5% significant level	2.86	4.01
10% significant level	2.45	3.52

Note: Source: Pesaran *et al*. (2001, p. 300), Table CI(iii) Case III: Unrestricted intercept and no trend.

more flexible in labor market will 'kick in' the inflows of FDI and country can benefit in terms of increasing the level of economic growth. This result is consistence with Gunnigle and McGuire (2001) and Storey et al. (2002) that labor market flexibility is the most important factor that attracts the inflows of investment at host countries. Governments play an important role to form any labor market regulation because any modification of this market will affect the level or inflows of foreign investment either through FDI or location of MNC's.

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