Foreign Direct Investment Effect on Urban Wages in MENA Countries

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Abstract

This paper use the urban set data for studding the FDI impact on average wage level in MENA countries. The results show that the openness to FDI tends to increase wage level of MENA countries. The positive impact remains significant after controlling for the capital labor ratio, industrial structure and human capital stock. Our results also suggest that both physical capital and human capital accumulation tend to raise the average wage level.

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1 Introduction

Prior to 1980, developing countries prohibits foreign direct investment flows. But these countries allocate the advantages for attracting of foreign direct investment after appearance of FDI advantages. The privileges of these capitals are: employment, spillovers of knowledge and technology, increasing of exports and GDP and other positive externalities. FDI have also an impact on the level of wages in the host countries. During the years 80, in the USA and in the some of industrial countries skilled labor wages increased in the proportion of unskilled labor wages. In the same years, foreign direct investment has grown in these countries. In the recent years, wage averages in the Swede and Irish firms have increased and on the other hand FDI has increased in these countries and other countries in the world. Moreover, some of theories show that FDI cause decreasing of wage because of decreasing of workers bargained power.

In this paper we investigate that does increasing of FDI decrease or increase urban wage in Mena countries. Therefore, we lay first the theoretical basis in this case and then test this effect with panel model data.

Feenstra and Hansan (1996), by a model revealed that capital flow from North countries to South one augment relative wages of skilled worker in both region. Taylor and Drifficld (2005), Figini and Gorg (1999) studied the data of Ireland and UK and show that the relationship between FDI and wage is positive and significant. Blonigen and Sloughter (2001), show that there is not significant relationship between inequality wages and FDI. Here inequality is inequality between skilled and unskilled labor force. Tsai (1995) have studied the relationship between FDI and wage inequality for 33 developing countries and have found that FDI increase wage with 11 developing countries review skilled and unskilled wage gap and shown that FDI augment wage gap. Similar to Aitken et al (1996), have shown that multinational firms augment productivity of labor force with transfer of knowledge to the host countries. This high productivity is crystallized in increasing of wages.

2   Theoretical framework

In theoretical discussion foreign direct investment effects on the wage level have widely studied. As very theoretical discussion, there are different opinions in case of FDI and its effect on wage. In this paper we study tow different views:

Neo classical economists believe in that increasing of capital lead to increasing of labor productivity and in turn lead to increasing of wage. The multinational firms usually have a big size and the high skilled labors; therefore average wage in these firms is higher than domestic firms. When these firms localize in other countries the wage level in the host countries will increase. The labor productivity in these firms is higher than domestic firms for tow reasons: first, the labor force in these firms is high skilled and these enterprises possess the

high technology second, entre of these firms in the host country increase capital level in the country economy. All in all, the wage level in these economies increases, because of high productivity in the foreign firms. Greenaway and Wakelin (2001) have found positive relationship between FDI and average of wage in UK.

On the other hand, many of economists oppose above opinion. They apply bargaining power between employer and worker for our reasoning. Reich (1985), Bowles and Gintis (1990), studied a theoretical bas for lay relationship between wage and bargaining power. They lay that although employer and worker can execute a contract and determine work hours but this contract don't guarantee that the workers do their tasks very well. This means may be they don't do actual work hour. Therefore, worker and employer always bargain on the actual wage. Now, presence of high technology due to FDI flow decrease bargaining power of workers. Therefore, in this condition worker is obliged accept a low pay off. Therefore, the section in which FDI is high the averages of wage decrease. On the other hand, competition between foreign and domestic firms for cost cutting cause that the domestic firms also suggest lower wages.

3 The economic analysis

For studying the effects of FDI on wage, we use panel data. This model considers the variables effect such as foreign direct investment, wage and with the time dimension. In order to avoid from spurious regression, we apply the unite root tests and with Hausman test we choose the type of model: fixed effect, random effect.

3.1 Data and Methods

We apply a panel data model for estimation of FDI effect on urban   wage. Our model is following:

$$WAG_{it} = \beta_0 + \beta_1 FDI_{it} + \beta_2 \frac{FDI_{it}}{GDP_{it}} + \beta_3 \frac{FDI_{it}}{K_{it}} + \beta_4 \frac{K_{it}}{L_{it}} + \beta_5 HUM_{it} + \varepsilon_{it}$$

where WAG is urban wage, FDI is foreign direct investment,
FDI/GDP is foreign direct investment GDP ratio,
FDI/K is foreign direct investment capital ratio,
K/L is capital labor ratio and HUM is human capital (expenditures on education)

Before proceeding to estimate panel data, we carry out unit root tests to examine whether the variables are stationary. The data set used covers 6 countries over the period 1980-2008 (Iran, Egypt, Kuwait, Turkey, Oman, Saudi Arabia).

The sources of variables are UNdata, the World Bank Group, UNSTAT, MNEs, LABORSTA, UNCTAD and Growth Data Resources.

Table 1: Unit root test of panel data (1980-2008)

FDI	FDI/K	FDI/GDP	K/L	WAG	HUM
-3.01*	-6.24*	-4.22*	-5.81*	-3.42*	4.32*

The variables are stationary at the 5% confidence level

Table 2: Panel analysis, country fixed-effects, 1980-2008

Dependent variable: WAG

Independent variables	(1)	(2)	(3)
Constant	1.23**	-1.86	2.13
	(2.12)	(-1.04)	(1.06)
FDI	0.061**	0.032*	-0.029**
	(2.01)	(1.80)	(-2.14)
FDI/K	0.012	0.042*	0.035
	(1.13)	(1.85)	(1.32)
FDI/GDP	0.032***	0.071**	0.034*
	(3.11)	(2.34)	(1.83)
K/L		0.031*	0.031**
		(1.86)	(2.22)
HUM			0.002**
			(2.31)

Note: t-statistics are provided in parentheses.
      * , ** and*** represent significance at the 10%, 5% and 1% respectively.

Since the Hausman test statistic is $X^2 = 24.1$ (P = 0.00), we apply fixed-effects model instead of random-effects.

Before estimating the model, we study the variables' stationarity by Im-Pesaran-Shin test to avoid spurious regression. In Table 1 the results indicate that the variables are stationary at the 5% confidence level. Therefore we can apply our model without spurious regression.

In Table 2 we have run the benchmark model. The results in the first column show that FDI, foreign direct investment GDP ratio and foreign direct investment capital ratio c a positive and significant effect on urban wages. We can accept the first opinion for foreign direct investment. This means that FDI bring productivity in these countries and high productivity increase urban wage. In the second column we have introduced capital labor ratio. This variable also has a positive effect on urban wage, because the high capital relative to labor force carries out the high productivity for labor force. In the third column we have added the human capital in to the model. The results in this model show that high human capital increases urban wage. In the last model FDI have a negative effect on urban wage may be it is for low bargaining power for labor force.

4 Conclusion

The aim of this paper is investigation of foreign direct investment effect on urban wage in the Mena countries. The period of study is 1980-2008. The unit root test of IPS shows that the variables are stationary and we haven't spurious regression. But the variables are stationary in the level i.e. there is not long run relationship between the variables. The Huasman test reveals that we should apply fixed effect model.

This paper use the urban set data for studding the FDI impact on average wage level in MENA countries. The results show that the openness to FDI tends to increase wage level of MENA countries. The positive impact remains significant after controlling for the capital labor ratio, industrial structure and human capital stock. Our results also suggest that both physical capital and human capital accumulation tend to raise the average wage level.

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