INTERNATIONAL LABOR MIGRATION AND THEIR EFFECTS ON WELFARE OF NATIVE INHABITANTS IN HOST COUNTRY

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1. Introduction

Globalization has created massive and irresistible impacts on the world business and industry over the last few decades. Undeniably, it triggered foreign trade and international movement of technology, labor, and capital. Labor migration is among the scenarios all over the world due to the trend of globalization. These days, movement of labor is a universal issue and the activity itself has its own impact on the sending and receiving countries. Those who move to seek employment at any foreign countries are generally known as migrant workers.

The term migrant worker refers to a person who enters a country (of which he or she is not a national) with or without a valid entry and work permits to be gainfully employed in various economic sectors.

The paper aims to report on a study concerning international labor migration and their impacts on the host country. The objective of the study is to investigate the effect of international labor migration on (i) the relative price and the wage rate, and (ii) the welfare of the native inhabitants in the host country. The methodology for the study involves literature search on macroeconomic theories related to the subject understudy. Consequently, a theoretical model based on three-factors (unskilled labor, skilled labor and capital) and two-commodity (tradable and nontradable) model is developed to measure the effects. This paper also provides a brief overview on the labor migration scenario in Malaysia. It is hoped that for the purpose of future research, the model will be a suitable methodology to be used to measure the effects on the Malaysian economy.

2. International labor migration

Millions of people moved to other countries in pursuit of better opportunity. Some migrates in search of work and higher pay or good working environment while others merely avoiding the conflicts in their home countries with the hope of seeking better life in a foreign land. Irrespective of the reasons, international labor migration is a common scenario all over the world.

Labor migration began during the time of colonialism, though at the time it was done by force i.e; slave trade. When the slave trade was abolished, indentured labor took its place. During the industrial revolution in Europe, many people began to move voluntarily (Wells, 1996). Nevertheless people do not automatically migrate when incomes are higher in one place than another, but their desire to migrate depends on: (i) comparative wage levels, actual and expected; (ii) comparative unemployment rates and unemployment benefits; (iii) the availability of housing; and (iv) the cost of migration: travel costs (including availability of foreign exchange), information costs, and the psychic cost of leaving one's culture, friends, and relations (Layard, R. et.al., 1994)

Malaysia is one of the receiving countries with regards to international labor migration. The country's economy has consistently recorded impressive and sustained economic growth. Consequently, it continues to attract migrant workers, particularly Indonesians. In contrast with the situation in many advances countries, where international labor migration is concerned with those who migrate for work and permanent settlement, the focus on international labor migration in Malaysia primarily centers on contract labor migrants. They are unskilled workers who are imported for a short duration on a contract basis to alleviate labor shortages in specific sectors (Kanapathy, 2006).

In Malaysia, skilled migrant workers are referred to as 'expatriates', while semi-skilled and unskilled are popularly known as 'foreign workers' or 'migrant workers'. Table 1 shows the number of unskilled migrant workers (in thousand) as percentage of total employment 2001-2007.

Table 1 Number of migrant workers (in thousand) as percentage of total employment 2001-2007

Year	2001	2002	2003	2004	2005	2006	2007
Migrant Workers ('000)	849.8	1067.5	1337	1470.1	1815.2	1869.2	2044.8
% of Total Employment	9	11	14	15	17	17	18

Source: Immigration Department of Malaysia, 2007

According to the Immigration Department of Malaysia, as at end 2007, the number of registered migrant workers in Malaysia totaled 2.04 million accounting for 18% of total employment. They are mainly engaged in semi and unskilled jobs in the manufacturing sector (36%), agriculture (25%), construction (14%) and services (25%). Meanwhile, as at end of July 2007, a total of 35, 052 expatriates were employed in the country as professionals, specialists and skilled workers (Economic Report, 2007).

Although their contributions to the country's economic growth are undeniable, the unprecedented influx of unskilled migrant labors, following unabated high growth since mid-1980s, had raised several social, political and economic concerns. The popular perception was that migrant labors were affecting local unskilled labors; both in wages and living standard.

Many studies have been done to address the issues related to labor migration (i.e; Ethier, 1985, 1986, Kondoh , 1999, Chao 2002, Carter, 2005, Kanapathy, 2004, 2006a, 2006b and Sharina et al., 2007). In addition, there have been a growing number of studies on the welfare effects of migrant workers on the native inhabitants of the host country. The main debate focuses on the question whether the migrant labors were displacing local labors and suppressing wages and living standard.

These studies, for example Kondoh (1999) concluded that under perfect competition environment; permanent, temporary, and cross border migration have very different effects on the host country. He found that immigration is beneficial to the host country. Whilst Chao (2002) introduces imperfect competition for the non-traded sector and his paper suggested that if the nontraded sector is relatively skilled-labor intensive, immigration of skilled workers is welfare enhancing while entry of unskilled workers can be welfare reducing. Carter (2005) analyzes illegal immigration and the effects of immigration enforcement policies. He concluded that an increase in migration depth lowers migrant wages and raises the income of host-country capital and labor, but when migrants move into what had been host-country jobs, native labor may be suffer. Kanapathy (2006) studied the impact of migrant workers on the Malaysian economy. According to her, cross-country empirical evidence suggests that immigration has not caused any net increase in the unemployment rate in the host country, and any negative impact of migration on wages is small.

Previously, we have developed a model to study the same aforementioned issue. The two-factors and two-commodities model (Sharina et al., 2007) was developed by taking into consideration that migrant labors are only employed in the nontradable sector and the labor endowments (both native and migrant labors) are immobile between sectors. In addition, the wage between labors in tradable and nontradable goods was assumed to be of different rates. In the paper, the immobility factor labor is assumed to represent an extreme short run scenario. In the very short run it is difficult for any factor to be moved and be productive in another industry. Thus, the difference wage rate between the two commodities.

The study theoretically concludes that if the nontradable good is capital intensive, (i) an increase in the inflow of cross-border labor raises the relative price of nontradable good; (ii) an increase of the inflow of migrant labors lowers wage rate and raises the rental price; and (iii) a marginal increase in the inflow of cross-border labor give rise to an aggregate welfare gain of natives in the host country. The opposite result occurs if the nontradable good is labor intensive. However, the paper did not analyze the effect of trade upon welfare as trade of goods was not considered clearly. Another point to be revised in the paper was that there was no liquidity in domestic labor market.

This paper is an attempt to fill this gap and the results are directly obtainable from the paper above. We propose a three factors and two commodities model to further investigate the effects of migrants on (i) the relative price and the wage rate, and (ii) the welfare of the native inhabitants in the host country under perfect competition environment. Hypothetically, the increasing number of unskilled migrant labors in the country will eventually causes the decreasing wage rate of the local unskilled labor but at the same time increase the wage rate of skilled labor. However, the model will be analyzed using comparative statics to draw the results.

3. The model

The model is developed by considering a country with small open economy. There are goods; tradable and nontradable and three factors; unskilled labor, skilled labor and capital. The study focuses on unskilled migrant labors. It is assumed that unskilled labor, both local and migrants are employed in both sectors whilst local skilled labor, are employed only in the tradable goods. Labor is immobile between sectors and capital is internationally mobile. The country is accepting foreign capital (FDI) in the tradable goods to boost its capital in order to achieve profit maximization. Assume that there is a regulation for introducing foreign capital. The domestic capital market is close, while the tradable sector can also include foreign capital as an input. As a result, the rental of domestic capital and that of foreign capital is different at the equilibrium.

The production function for tradable goods is $T = T(L_T, \overline{L}_T, K_T + V_T)$ and that of nontradable goods is $N = N(L_N, K_N)$. L_T and L_N are inputs of unskilled labor while K_T and K_N are inputs of capital for the production of the tradable and nontradable goods, respectively. In addition, $\overline{L}_T$ is the input of skilled labor and V_T is the capital through the foreign direct investment (FDI) from foreign countries in the tradable good. Both functions are assumed to be linearly homogeneous. It is further assumed to be under perfect competition and full employment condition. By taking the tradable good as numeraire, thus the price of goods in the commodity, p_T is equal to 1. The following equations are derived from the aforementioned assumptions:

$$\omega = \frac{\partial T}{\partial L_T} = p_N \frac{\partial N}{\partial L_N} \tag{1a}$$

$$\frac{\partial T}{\partial K_T} = p_N \frac{\partial N}{\partial K_N} = r \tag{1d}$$

$$\overline{\omega} = \frac{\partial T}{\partial \overline{L}_T} \tag{1b}$$

$$L_T + L_N = L + L_M \tag{1e}$$

$$\frac{\partial T}{\partial V_T} = \hat{r} \tag{1c}$$

$$K_T + K_N = K \tag{1f}$$

Equations (1a) and (1b) show the difference wage rates between the unskilled and skilled labors. p_N represents price in the nontradable goods, ω is wage rate of unskilled labor in tradable and notradable goods and $\overline{\omega}$ is the wage rate of skilled labors. Equation (1c) and (1d) portray the difference rental of local and foreign capital. r refers to rental of local capital endowment in both goods while $\hat{r}$ is the rental of foreign capital invested only in the tradable goods. L and K are the endowment of labor and capital in the host country of which both are assumed to be given and constant. L_M represents the inflow of unskilled migrant labor, employed in both tradable and nontradable goods. The unskilled migrant labors remit their earnings mainly to their families at home country. For simplification, it is assumed that all of their income is spent in the home country. The total income of factors endowments in the host country is denoted as:

$$Y = rK + \overline{\omega}\overline{L}_T + \omega L$$

Y is the total income, a sum of rK; rental of local capital, $\overline{\omega}\overline{L}_T$; total wage of skilled labor in tradable goods and ωL; total wage of local labors in tradable and nontradable goods.

The supply function of the two goods relies on the relative price and the inflow of migrant labor whereas the demand function depends on the relative price and the total income spent in the country. It is denoted in equation (2):

$$D_N(p_N, Y) = S_N(p_N, L_M) \tag{2}$$

$$\bar{r}V_T = T(L_T, \bar{L}_T, K_T + V_T) - D_T(p_N, Y) \tag{3}$$

Equation (3) shows the trade balance with $\bar{r}V_T$ represents the total income of foreign country from the FDI invested in the tradable good in host country and the RHS is the goods exported to foreign country. T is total output of tradable good and D_T is the total demand of tradable good in the host country.

In this general equilibrium system, equations (1a), (1b), (1c), (1d), (1e), (1f), (2) and (3) determine 11 endogenous variables; p_N, L_T, L_N, K_T, K_N, V_T, Y, $\bar{\omega}$, ω, r and T if L, K, $\bar{L}_T$, L_M and $\hat{r}$ are given exogenously.

4. Conclusion

This paper discusses the effect of international labor migration on the host country from the economic point of view. Theoretical three factors and two commodities model was developed by taking into consideration that unskilled migrant labors are employed in both tradable and nontradable sectors and the local skilled labors are employed in tradable sector only. The labor endowments (both native and migrant labors) are immobile between sectors and capital is internationally mobile. The model also considers the inflow of FDI in tradable goods to boost the economy through profit maximization behavior. By analyzing the equilibrium model, the effect of labor migration upon the welfare can be derived through comparative statics. The results of comparative statics will be shown at the presentation due to lack of space.

In addition, the paper provides an overview on the labor migration scenario in the Malaysian economy. For the purpose of future research, the model will be expanded to suit the Malaysian economy and it will be used to analyze the effects of migrant labors on the country.

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