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Research on Immigration and Integration in the Metropolis

Malaysian Immigration Issues: An Economic Perspective

A report prepared for
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Abstract: Malaysia experienced a sustained period of rapid economic growth over the last two decades, which led to a critical labour shortage in the construction, agricultural, and service industries. To supplement a slow growing domestic labour force Malaysia introduced a temporary foreign workers program. Under this program by 1998 10 per cent or more of the Malaysian labour force consisted of temporary workers from Indonesia, the Philippines, Thailand and Bangladesh. This paper develops a theoretical model to analyse the costs and benefits to Malaysia of various skill levels of temporary movement. Finally, the economic costs of a migrant return policy are explored in light of the recession in Malaysia and the consequent decline in the demand for temporary labour. Policy measures for the selected retention of temporary workers are suggested.

I.   Introduction

Modern immigration policy finds its theoretical underpinnings in the work of Rawls (1971) or Berry and Soligo (1969). Berry and Soligo argued that if an immigration policy improved the average welfare level of the resident population, then that immigration policy met their criteria for acceptance. However, Dales' (1964) historical modeling of Canada's immigration experience indicated that, while immigration can raise total gross national product of a country, increased immigration may simultaneously reduce resident income per capita. Following Rawls, I have extended Dales' view by arguing that only immigration policies that improve the living standards of the bottom half of the income distribution for the resident population should be considered welfare-improving.
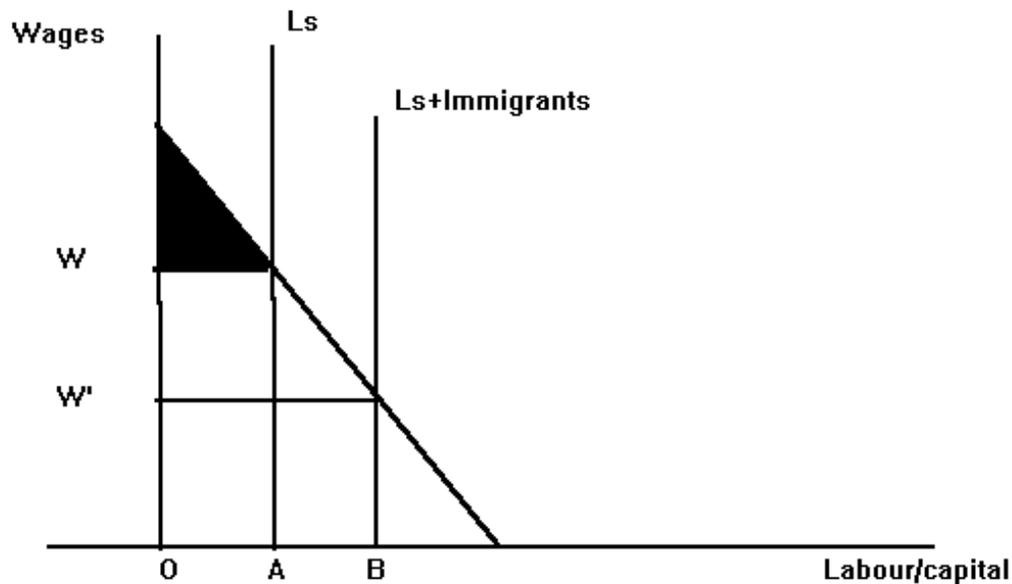

Figure 1: Static Harberger Triangle with immigration

Figure 1, which contains the static elements of a Harberger triangle, illustrates the case of immigrant entry that raises GDP, and simultaneously reallocates income to the capitalists while lowering the resident wage rate. In other words, as A-B immigrants enter, resident wages are lowered to (W') while the original returns to the capitalist (shaded triangle) increase. Thus, an immigration policy that led to this outcome would be welfare-improving in the Berry and Soligo sense. Under the DeVoretz rule, however, the immigration policy should be abandoned since real wages decline while income to the presumed richer capitalists rises.
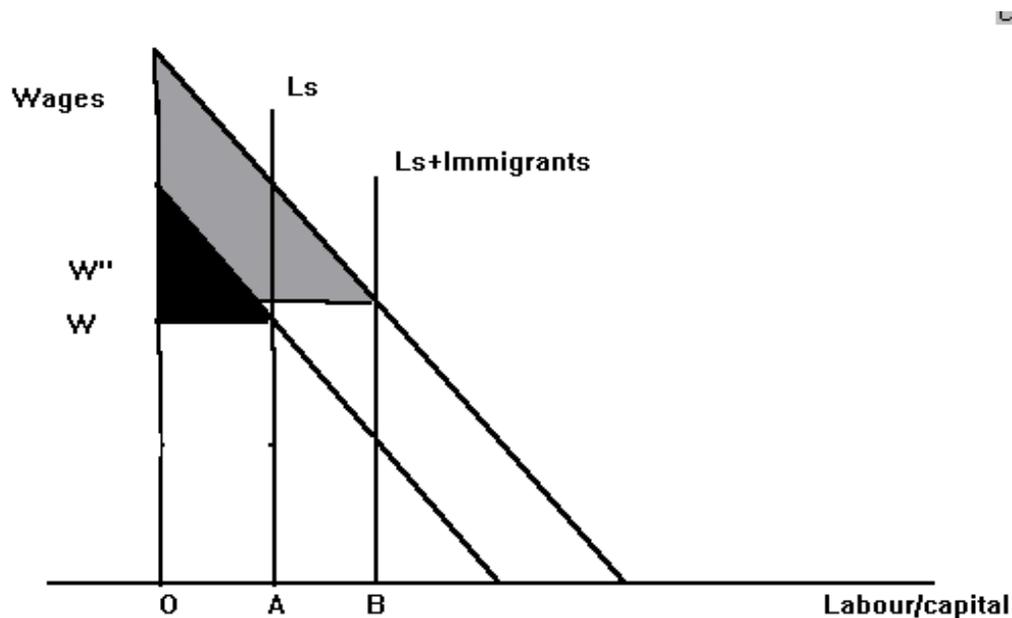

Figure 2: Dynamic Harberger Triangle with Immigration

Figure 2 illustrates a case in which immigration is welfare-improving for both capitalists and resident wage earners and satisfies the DeVoretz rule. Under this optimistic scenario, A-B immigrants enter with either a complementary skill set, or technical knowledge, or embodied human capital, or some combination of these factors.

Under these optimistic conditions, the demand curve for labour shifts to the right since
the marginal productivity of foreign-born and native-born labour is raised from the
above-cited factors. If the demand curve shifts more than the supply curve, then
immigration leads to an increase in wages for both resident and immigrant workers along
with a simultaneous rise in the capitalists' share.

In the absence of negative externalities or a collapse in intergenerational public
finance transfers, immigration policies that lead to outcomes similar to Figure 2 are to be
preferred to outcomes depicted under Figure 1. Thus, to insure welfare-improving
outcomes for at least the lower-income classes, foreign-born labour should be admitted in
sectors that yield the results embedded in Figure 2.

II.   Sectoral Analysis

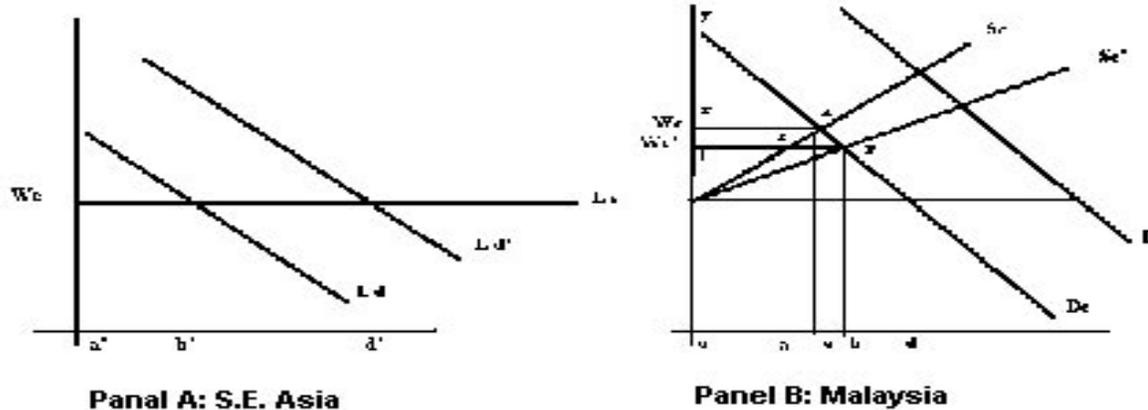**Panal A: S.E. Asia**   **Panel B: Malaysia**

Figure 3: Wage and Employment effects of Immigration

Figure 3 presents a composite version of Figures 1 and 2 and will direct us to a
more detailed sectoral analysis of the various Malaysian labour markets. Panel A
represents the labour market for the immigrant-sending regions of Southeast Asia

(Indonesia, Philippines, etc.) whose wage is a constant and low We. A horizontal labour supply curve implies that unlimited amounts of unskilled labour are available for the Malaysian labour market depicted in panel b. Under the original set of demand and supply conditions prior to immigration, Wc is the domestic wage rate with O-A employment. With immigration, the supply curve shifts downward and the wage depresses to Wc' with a-b immigrant arrivals. Furthermore, domestic employment declines by e-b. Wages and domestic employment would only be restored if the labour demand curve shifts to Dc'. This shift in labour demand is owing to complementary capital or technology entering with the unskilled immigrants.

Figure 3 depicts the economic gains (or losses) that can arise under immigration. The severity of these outcomes varies by sectors within Malaysia depending on the existing technical economic conditions in each sector. In particular, labour supply and demand elasticities for labour coupled with the existence of complementarity domestic labour or capital will determine which outcome — optimistic or pessimistic — characterizes a particular sector.

These technical conditions must be estimated to insure us as to whether the expansion of the foreign labour supply in a particular sector will depress or raise wages in panel b of Figure 3. Given the absence of sectoral labour and capital data to estimate the required elasticities, we will devise various analytical constructs to characterize Malaysian sectoral labour markets and ultimately allow us to design a research programme to measure the sectoral impact of immigration.

III.   Analytical Constructs

We divide the Malaysian economy into four stylized sectors to depict the various optimistic or pessimistic scenarios that can result from increased immigration.

Agricultural Export Sector

First, we ask: does the immigrant labour-absorbing agricultural export sector yield the results appearing in Figures 1 or 2? The stylized production conditions for this sector suggest that the production function uses both land and unskilled labour intensively with

a limited amount of complementary domestically supplied management (skilled) labour. Given a competitively determined world (i.e. fixed) agriculture export price, then additions of immigrant labour will raise the returns to both domestic (management) labour and landowner. Further, no domestic unemployment of unskilled labour will result from increased immigration if the unskilled domestic reservation wage exceeds the total cost of foreign labour (opportunity wage rate plus employer taxes on imported labour).

Under this asserted and unique set of conditions for the agricultural export sector, Figure 2 applies and resident wages will improve and landowner returns will rise with increased immigration. Thus, Malaysian GDP will increase and the wages earned by the lowest income group will improve. Finally, it is important to note the unique conditions which led to these optimistic conclusions, namely, the small-country trade assumption (i.e. fixed world output price) and a high domestic reservation wage.

One negative externality, which may alter the above conclusion, is the foreign remittance effect. In short, foreign agricultural export workers remit monies, which has a negative balance of payments effect for all Malaysians. However, in this export sector, the output of immigrant workers generates foreign exchange earnings in excess of their remittances, so that overall, Figure 2 still obtains.

Given this construct, a research programme analyzing the foreign labour impact in the agricultural sector would attempt to answer the following set of questions:

1. Does the rural reservation wage actually exceed the effective foreign wage including employer taxes on foreign labour?

2. What are the percentage income shares for foreign-born and domestic labour as a percentage of value added in individual agricultural export producing sectors?

3. What are the changing trends in the above shares as the Malaysian economy expanded and contracted over the business cycle?

4. What are the absolute remittances of the foreign born in this sector relative to the sector's foreign earnings?

Household Sector

A second useful analytical construct is to visualize a sector (or sectors) that produces non-tradable services with foreign-labour-intensive techniques. Examples would be household or domestic workers; maids, child minders, etc. The case for a welfare-improving situation (i.e. Figure 2) under increased immigration in the household sector would require that the opportunity cost of the previous Malaysian-born maid or child minder be positive. In short, the Malaysian-born female labour force participation rate must rise as a consequence of importing foreign labour to insure that the opportunity cost of the displaced Malaysian is positive. If this condition does not hold, then increasing the number of foreign care-givers or maids will not increase Malaysian GDP. Rather, after immigration, only simple consumption reallocation will occur within the Malaysian household with no output or income growth.

In addition, foreign service workers remit cash home, which creates a negative externality in the form of growing remittances on the balance of payments. Given this externality, some increased domestic output (export earning or import substituting) must result from increased foreign household workers. Again, foreign labour must release Malaysian labour to produce foreign exchange earnings activity to offset the remittance effect. To analyze if the case for increased immigration (Figure 2) or less immigration holds (Figure 1) for the household sector, we again pose a set of research questions:

1.   Is there a significant difference between the female domestic reservation wage and female foreign-born effective wage over the last 10 years?

2.   What has been the trend in the above over the recent business cycle?

3.   What is the size of the remittances of foreign-born household labour?

4.   What is the trade-off between increases in female foreign-born household labour and increases in the Malaysian female labour force participation rate?

Construction

The third foreign-born analytical sector of interest is the construction sector. This sector is intensive in foreign labour and produces (almost) exclusively domestically produced commodities. Given a high male Malaysian reservation wage, and the continued use of

labour-intensive technologies, the importation of foreign-born labour can be argued to be welfare-improving in the short run and welfare-decreasing in the long run. The explanation for this paradox is straightforward. Given the high reservation wage for domestic labour and low foreign-labour wages, the production of a physical structure increases the demand for domestic complementary inputs (land and semi-skilled or skilled labour) and Figure 2 results. The continued use of foreign labour, however, does not allow for a choice of construction techniques consistent with domestic relative input prices. In the absence of foreign labour, the adaptation of capital-intensive construction techniques would have led to relatively highly paid labour as productivity improvements appear in the construction industry. Thus, in the absence of wage-depressing foreign-born labour, the demand curve for domestic construction labour will shift to the right increasing domestic wages and domestic employment beyond the existing reservation wage.

How, then, do we decide on an immigration policy for the construction sector? If the productivity gains implied by best-practice construction techniques available are less than the rate of discount, then you allow in foreign labour. Otherwise, you gradually close the sector to foreign labour and let wage rates rise, which would result in capital substitution. This assertion leads to another set of research questions:

1.   What has been the rate of change in labour productivity in the Malaysian construction industry?

2.   How has this labour force productivity increase varied over the business cycle and across construction sectors vis-à-vis the percentage of foreign-born labour?

3.   What are the estimated remittances of foreign-born workers in the construction industry?

4.   What is the leakage in this industry? How many workers migrate from the construction industry to the general service sector?

5.   What is the ratio of the reservation wage to the foreign-born effective wage in this sector over time?

6.   Given a set of discount rates, what is the trade-off in productivity gains from adopting a best-practice construction technology versus labour-costs savings implied by a continued dependence on foreign labour?

Mixed Sector

There exists a mixed fourth sector of interest consisting of manufacturing and/or modern service production (finance or tourism), which absorbs foreign labour. The outcome here is depicted in Figure 1 since a reservation wage is not actively withholding domestic labour. Thus, unless foreign-labour inputs provide complementary human or financial capital, the outcome depicted in Figure 1 results and no amount of foreign labour is domestically welfare-improving. The caveat is if the modern service or manufacturing sector is a vital foreign exchange earner. One central research question derives from this characterization: what is the ratio of foreign-born remittances from the domestic highly skilled service worker vis-à-vis the foreign-exchange earnings of this sector?

IV. Public Finance Implications

The above analysis and the associated research questions focused solely on labour market outcomes. The impact of immigrants on public finance issues must be explored to finalize this analysis before we turn to a suggested research strategy.

J. Simon (1984) argued that the only case for (or against) immigration arose from the public finance question. If the foreign-born simultaneously consumed less public services and paid more taxes than the native-born population, immigrant expansion was seen to be welfare-improving.

Figure 4 depicts the normally argued life-cycle nature of public goods consumption and associated tax payments relative to the native-born.

Figure 4: Life-Cycle Consumption and Tax Payments by Foreign Birth Status

The life-cycle earnings and consumption paths of the two populations — foreign-born and Malaysian — determines whether a net transfer from the foreign-born population to Malaysians occurs. In the case depicted above, the outcome is clear: the foreign-born pay more in taxes than they use in public services since they enter Malaysia at a prime income-producing period (after age 20). Moreover, the foreign-born consume moderate amounts of public services until later in life. Hence, a positive (discounted) public finance transfer occurs.

This picture can be reversed, however, if immigrants have dependants or if their income-earning possibilities drop. In addition, the cost of public services ignores the queuing problem since, at best, public services are valued at average cost. Hence, the short-run impact of immigrants on "congestion costs" must also be considered. This typical depiction of the public finance of immigrants leads to the following set of questions in the Malaysian context:

1.   What is the net public finance transfer of the foreign born during periods of full employment?

2.   How does this transfer vary by skill level or sector?

3.   How does this transfer differ by years of residency?

4.   How does this transfer differ by country of origin?

IV.   Research Plan

The combined labour market analysis depicted in Figures 1 and 2 and the public finance transfers implied by Figure 4, constitute a research framework for deducing if immigration (or emigration) to (from) Malaysia is welfare-improving for the resident population. The suggested research plan is as follows. Given the anticipated paucity of immigrant-specific data, I suggest that questions which involve the use of readily available public data be answered first. This would include an estimate of the public finance impact of immigration. Here, tax contributions can be estimated both by construction and public goods consumption, and econometrically from the native-born population's characteristics.

Next, the agricultural export sector should be analyzed given the availability of data on export earnings, wages and an inferred reservation wage from the modern urban service or manufacturing sector. Given the possible negative externalities and low output-producing effects from further imported domestic workers, a series of studies addressing the set of questions posed above should be carried out in a sample survey form to determine if Malaysian female labour-force participation is sensitive to additions of foreign household labour.

Finally, the construction industry needs little study at this point given its current dormant state. Likely sources of external funding are numerous. To date, the author has contacted the World Bank, the Metropolis Project, Carnegie Endowment for International Peace, Foreign Affairs Canada. Other potentially interested parties are ILO, IMF and regional Asian sources.

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