

Host Country Migration Policy: Permanent, Guest-worker or Mode IV?

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Introduction

Introduction

- ✦ **Host countries: GW programs to increase work force without permanent increase in their population;**
- ✦ **However, they became unpopular due to massive overstaying (Bracero, Gastarbeiter programs. Also post-1973 demand fell;**
- ✦ **The dramatic growth in temporary migration since the 1990s may reflect increasing reluctance to admit permanent migrants, particularly unskilled ones.**

Introduction

- ✦ **In fact, attitudes have worsened in recent years. Over half of host country natives favor increased immigration restrictions: Italy- 87%, Spain-77%, UK and US-75%, France-68%, Germany-66%, Sweden-53%.**
- ✦ **Host countries' immigration regimes are unlikely to be sustained if they do not perceive them as beneficial.**

Guest-worker Policy

This paper examines what migration programs – permanent, GW or Mode IV – can best achieve host countries’ objectives.

- Components of the GW policy:

- i) The host country defers part of the payment of GWs’ income and returns it with interest if they leave at the end of the contract period; otherwise, they forfeit it;**

Guest-worker Policy

- ii) **Employers must purchase a government bond which they redeem with interest when the GW leaves and forfeit if the GW overstays; and**
- iii) **The host country government maximizes its objective function by determining the size of the GW program, the share of income that is deferred, and the value of the bond.**

Guest-Worker Model

- Assume a developed and a developing country, both using labor to produce a non-storable good under perfect competition and CRS. This implies constant labor productivity and real wage;
- The host country technology level (and thus its wage rate W^N) is higher than the home country technology level (and wage rate W^S);
- Individuals live and work for two periods;
- Risk neutrality and a subjective discount rate $\rho = 0$ is assumed throughout.
- Given excess immigration demand, the GW quota is assumed to be binding.

Guest-Workers

- ✦ GWs earn $W < W^N$, the native's wage rate, with $W > W^S$, the source country wage rate;
- ✦ Those who enter at period 1 must decide whether to return home at the end of the period or overstay;
- ✦ The wage rate W^I in the illegal job market is lower than W in the legal one, i.e.,
$$W^S < W^I < W < W^N$$
- ✦ GWs in period 2 cannot overstay since they only live two periods.

Guest-Workers

The overstaying cost is the sum of three components:

- (i) the cost αW of forfeiting the deferred share α of the income W earned;
- (ii) the income W^S the guest-worker would have earned upon return to source country at end of period 1;
- (iii) a heterogeneous psychic cost v_i of living away from home and being illegal.

Guest-Workers

- Total cost is $\alpha W + W^S + v_i$; v_{ψ} equates benefit and cost: $W^I = \alpha W + W^S + v_{\psi}$, or

$$v_{\psi} = W^I - \alpha W - W^S = X - \alpha W$$

- With v_i distributed uniformly over the unit interval $[0,1]$, the cdf $F(v_{\psi}) = v_{\psi}$.
- Thus, a share v_{ψ} overstays and a share $(1 - v_{\psi})$ returns home at the end of period 1.

Employers

- Native workers earn their MP = $W^N > W$

LEGAL EMPLOYERS

- Per GW profit $Y = W^N - W$;
- There are no profits from hiring native workers.
- Employers create firms to hire GWs (they must also do so by law since GWs need employment contract).
- Total employer benefits equal
 $EB = YN_G - v_\psi BN_G$; $N_G =$ quota, $B =$ bond value.

Employers

- 💡 **Bond = tax on firm when GWs overstay. If GWs can be screened, though it would seem optimal to do so for firms with more GWs than a critical value, they can in fact do better (rules vs. discretion).**
- 💡 **Assume not only that firms are rational but that other firms and the government know they are rational. Firms announce that, no matter the value of the bond, they will not screen. Then, an ‘optimizing’ government understands that the bond policy will have no impact and it does away with it. Thus:**
- 💡 **$EB = YN_G$**

Illegal Employers

- **Profits** $IB = v_{\Psi} N_G Z$,
with $Z = (W^N - W^I)$
- **The population prefers legal to illegal activities, and considers the contribution of illegal employers' profits to social welfare to be equal to be less than IB , namely:**

$$\gamma IB = \gamma v_{\Psi} N_G Z$$

where $0 \leq \gamma < 1$

Social Cost

- Migrants generate a social cost $SC(N_G)$ for natives, with $SC' > 0$, $SC'' > 0$.
- The social cost weights of legal GWs, PM and illegal or overstaying GWs (OGW) are assumed to be $\mu < \phi < \eta$
- The social cost for legal GWs is μN_G^2 and for illegal ones is $v_\Psi \eta N_G^2$

Thus, the total social cost is $SC = (\mu + v_\Psi \eta) N_G^2$

Fiscal Revenue

-The government's benefit from keeping a share α of illegal GWs' income is

$$GB = v_{\Psi} N_G (\alpha W)$$

Government Objective Function

The government's objective function is:

$$V_G = EB + \gamma IB + GB - SC = (Y + \gamma v_\Psi Z + v_\Psi \alpha W)N_G - (\mu + \eta v_\Psi)N_G^2$$

where V_G is welfare under GW policy.

- The government maximizes V_G with respect to three policy measures: the share of income α whose payment is deferred, the size of the quota N_G , and the value of the bond B (with the optimum being $B^* = 0$)**

SOLUTION

$$N_G^* = \frac{2(\mu - Q) + \eta(X + \gamma Z)}{2\eta^2}$$

where

$$Q = \sqrt{\mu^2 + \eta\mu(X + \gamma Z) - \eta^2 Y};$$

and

$$\alpha^* = \frac{X + \eta N_G^* - \gamma Z}{2W}.$$

Policy Implications

- An increase in W^S reduces the incentive to overstay and lowers v_ψ^* and α^* , and therefore raises N_G^* and V_G^* .*
- Thus, host countries can reduce the incentive to overstay and increase welfare by accepting GWs from better off source countries.*
- A decrease in W^I reduces the incentive to overstay and thus lowers v_ψ^* and α^* . However, the impact on N_G^* and V_G^* is ambiguous because of the reduction in illegal profits.*

Policy Implications

- An increase in W reduces legal profits and thus reduces N_G^* and V_G^* .***
- The same result obtains when public services to legal GWs are increased.***
- Thus, policies that guarantee GWs a decent wage rate and/or decent public services reduce legal employers' profits and/or government revenues, resulting in a decrease in N_G^* and V_G^* . The reduction in welfare is smaller if natives obtain satisfaction from improvements in the treatment of GWs or could even be positive.***

Policy Implications

- *An increase in μ or η leads to a decrease in N_G^* and V_G^* .*
- *Thus, a policy designed to further GW integration and promote tolerance by natives towards immigrants would result in an increase in N_G^* and V_G^* .*

MODE IV

Difference between Mode IV and GW program:

- ✦ **A GW program entails a contract for temporary employment between a host country employer and a foreign *individual*;**
- ✦ **Mode IV entails a contract for the temporary movement of service providers between a host country and a foreign *firm*;**
- ✦ **Mode IV is expected to be associated with a substantially lower degree of overstaying than GW because:**

MODE IV

- ✪ 1. The host country can penalize the foreign firm (FF) through a large fine or by denying it the right to operate in that country if any of its employees defects. This provides an incentive for the FF to screen prospective workers and monitor them;
- ✪ 2. The migrants have an incentive to monitor each other because they all lose if one of them defects;
- ✪ 3. The FF can also defer part of the payment to its workers until they return home;

Mode IV

- ✪ **4. FFs could hire short-term migrants with similar background (such as religion, ethnicity, and especially location) as they would a) likely internalize the negative externalities they would generate on their family and community back home by defecting, and b) be subject to sanctions or at least some form of ostracism upon return;**
- ✪ **5. If hiring from a specific village or town, a FF could inform the authorities it will cease hiring there if any of the workers defects;**
- ✪ **6. The FF could demand that local authorities buy a bond which they would forfeit if one of the workers did not return**

Mode IV - Model

- Assume that a FF can reduce overstaying to zero for a fixed setup cost FC (e.g., travel to the foreign recruitment location) and that it is optimal to do so, i.e., $V_M = V_M^* = 0$.
- The host country taxes FFs' earnings at a rate t , with fiscal revenue equal to tYN_M . Assuming zero extra-normal profits for the existing FFs, we have $(1 - t)YN_M = FC$.
- The host country maximizes $V_M^* = tYN_M - \theta N_M^2$, with $\theta < \mu$, i.e., people prefer Mode IV-migrants to GWs because they know that part of the GWs will overstay.

Mode IV - Solution

- Then $N_M^* = \frac{Y}{2\theta}; t^* = 1 - \frac{2\theta nFC}{Y^2}$,
where n is the number of identical FF. The optimum is $V_M^* = \frac{Y^2}{4\theta} - nFC$
- Thus, N_M^* , t^* and V_M^* increase with the per-migrant profits and decrease with the social cost of Mode IV-type migrants. On the other hand, V_M^* and t^* fall as FC increases while N_M^* remains unchanged.
- In general, whether V_G^* is greater or smaller than V_M^* is ambiguous.

PERMANENT MIGRATION

- ✪ PMs do not overstay and thus do not generate government revenue;
- ✪ PMs generate a higher social cost than legal GWs because they are *permanent*, though GWs generate a higher social cost if they overstay. Thus:

$$\theta < \mu < \phi < \eta$$

💡 Under permanent migration, the welfare function is

$$V_P = 2(Y_P N_P - \phi N_P^2), \text{ where } Y_P = W - W_P$$

- The optimum is given by

$$N_P^* = \frac{Y}{2\phi}, V_P^* = \frac{Y^2}{2\phi}.$$

- Sufficient condition for $V_P^* = \frac{Y^2}{2\phi} > V_M^* = \frac{Y^2}{4\theta} - nFC$ is $2\theta \geq \phi$.

- Otherwise, whether V_P^* is greater or smaller than V_M^* is ambiguous.


- **However, attitudes towards permanent immigration of unskilled workers have worsened over time, i.e., φ has increased (and the possibility that $W^P > W$ as *PM* adapt to their new economic environment) raises the likelihood that host countries would prefer Mode IV to permanent migration.**

More Speculative

- This may not reflect reality. If, say, a GW policy exists, adding a permanent migration (PM) policy might plausibly raise the social cost of the GW policy, as well as that of the PM policy beyond the social cost under only one of the policies, i.e.,
$$V_{MP}^* < V_M^* + V_P^*.$$
- However, the welfare gain from a combination of any two (or of the three) policies should not result in a decline in welfare since an optimizing government can always refrain from implementing one (or two) of the policies and implement the one that generates the highest welfare.

Government Selection

- As discussed earlier, host country governments are concerned with overstaying GWs, and though individual values of v_i are not known, some groups are likely to have lower average v_i values than others.
- Ceteris paribus, married men are likely to have higher v_i values than younger single men and are thus less likely to overstay.
- Second, women are less likely to overstay as they tend to be more attached to the direct family left behind than men.



✦ Thus, host countries might approve a GW program, conditional on criteria likely to reduce overstaying, e.g., being married, with men hired for physically demanding jobs – e.g., construction and harvesting, and women hired for more traditionally female occupations such as nannies, maids or home care.

- ✚ Likelihood of overstaying under Mode IV is very low;
- ✚ Still, host countries reluctant to open up to such exports of services;
- ✚ No results from WTO's Doha round on this issue
- ✚ Issue of sovereignty;
- ✚ So, negotiations at bilateral or regional level;
- ✚ What can source countries offer in exchange?
Maybe open up to Mode IV at the top end
(banking, insurance etc) in non-preferential way

- ✦ With population ageing and economic growth, demand for at-home services (nannies, care for old people) is growing fast.
- ✦ Thus, seems sensible for home and host countries to do a pilot or experiment with low overstaying probability by restricting entry to women.
- ✦ If successful, it could be expanded to more regions and possibly to men.

CIRCULAR MIGRATION

🔦 Under circular migration, the rate of overstaying is

$$v_{\Psi}^C = W^I - qW - (1 - q)W^S - \alpha W = v_{\Psi} - q(W - W^S) < v_{\Psi}$$

with q = probability of being hired again.

- Thus, circularity reduces overstaying and thus results in a larger quota, i.e.:

$$N_C^* > N_G^* \text{ and } V_C^* > V_G^* .$$

Preposition 7

-Circular migration reduces the degree of overstaying, resulting in an increase in the size of the temporary migration program.

-Thus, host countries should consider an immigration strategy that adds circular migration to the other temporary migration policies or a combination of these.

REGULARIZATION

- ✿ **Short-run**: Regularization of illegal migrants is likely to be beneficial because it
 - i) reduces social costs;
 - ii) though it replaces higher illegal earnings that are disapproved of by lower legal ones, with an ambiguous impact;
- ✿ **Long-run**: Regularization may generate long-term losses if it results in expectations of future regularizations.

REGULARIZATION

💡 Assume regularization results in expectation of future regularizations with probability r . Then, the rate of overstaying is:

$$v_{\Psi}^R = rW^R + (1-r)W^I - W^S - \alpha W = v_{\Psi} + r(W^R - W^I) > v_{\Psi}$$

i.e., it increases since GWs hope for regularization to take place, and thus

$$N_R^* < N_G^* \text{ and } V_R^* < V_G^*.$$

Preposition 8

Regularization of overstaying migrants may provide short-term benefits for the host country but this are more doubtful over time if the policy results in expectations of future regularizations.

Thus, host countries should assess the impact of regularization on migrants' expectations of future regularizations as well as the tradeoff between legal and illegal profits before deciding whether or not to implement such a policy.

Conclusions

Host country governments should consider:

- i) The issue of discretionary policy and exposure to policy manipulation by private agents when deciding on an immigration strategy;
 - ii) Favoring female, married, and/or older temporary migrants (GWs or Mode IV) should reduce overstaying and increase the size and benefit from temporary immigration.
- 💡 The extent of the welfare gain from immigration policy package that consists of two or all three policies, as it is likely to be smaller than the sum of gains of each policy separately; and

Conclusions

- iv) Include circular migration as part of the policy package;**
- v) Whether a policy where firms would have to buy a compulsory bond is warranted;**
- vi) Select better-off source countries in order to reduce the degree of overstaying and raise immigration policy benefits; and**
- vii) Help migrants integrate and promote tolerance among natives, thus raising the benefits of the immigration policy.**



Extension

- **Illegal entry where host country offers to expand temporary migration quota against source country cooperation in reducing illegal entry;**
- **Optimal host and home policy in a game-theoretic framework where home country's objective function is modeled as well; and**
- **General equilibrium model of various migration policies and trade.**



THE END