

MEMORANDUM

No 18/2013

The Political Economy of Migration Policies in Oil-rich Gulf Countries

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The political economy of migration policies in oil-rich Gulf countries

Halvor Mehlum and Gry Østenstad *

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Abstract

We study the political economy of migration policies in oil-rich Gulf countries focusing on two policy dimensions: a) the number of migrants allowed into the country and b) the assimilation of migrants, where less assimilated migrants on short-term contracts remit more. We develop a two goods macro model with traded and non-traded goods. The migration of guest workers leads to a wage drop hurting citizen workers, while capitalists and oil rent earners benefit. When foreign exchange is remitted out of the economy, the real exchange rate depreciates. The remittance outflow benefits oil rent earners while capitalists and workers lose. Hence the three classes of domestic agents have diverging interests with regard to their preferred policy mix. The results are important for understanding the changes in migration policy in the Gulf, in particular in relation to the sharing of oil rents and on the political influence of the working class and the capitalists.

Keywords: Migration, Natural Resources, Gulf countries

JEL: O15, F22, P16,

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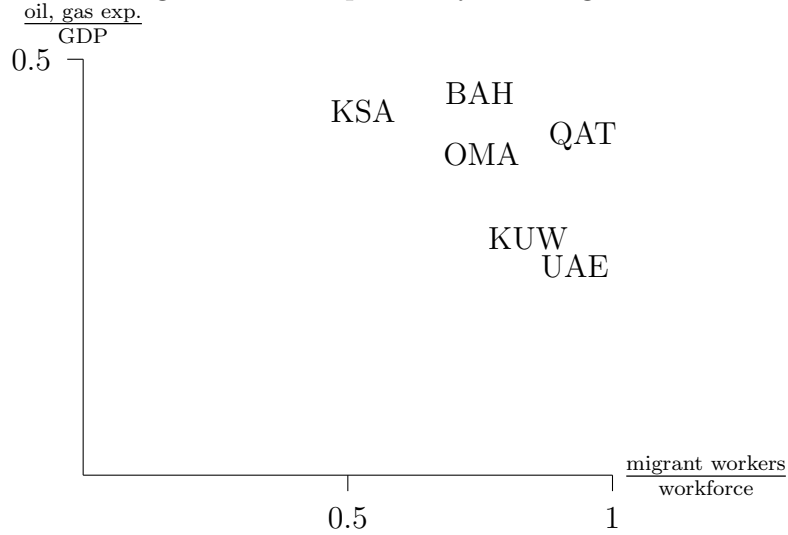
1 Introduction

Following the large discoveries of oil in the Gulf region there has been a rising demand for labor. As the national population was small and lacked the necessary skills to take advantage of the oil discoveries, labor was imported from abroad. The job opportunities in the Gulf region attracted millions of migrants, and today the Gulf countries have the highest proportion of migrant workers in the world. The migrants send a large amount of remittances back home, ranking the Gulf countries in the world top of remittance-sending countries. This labor inflow combined with the outflow of foreign exchange has major implications for the labor markets and the economy in general in the Gulf countries. This paper aims to work out the effects of migration and remittances on a migrant-receiving resource-rich economy. We study how the inflow of migrant workers and their sending of remittances will affect the welfare of different classes of Gulf citizens. In particular we ask what the preferences for different migration policies will be.

The Gulf countries we focus on in this study are the member states of the Gulf Cooperation Council (GCC): Saudi Arabia, Oman, Kuwait, Bahrain, Qatar and the United Arab Emirates (UAE). These economies share the characteristics of being highly dependent on oil while the majority of their workforce consists of migrant workers. Figure 1 illustrates oil dependency in relation to the fraction of migrant workers to the total workforce. It is clear from the figure that the Gulf countries have both a high ratio of oil and gas exports and a high proportion of migrants in the workforce. While the ratio of oil and gas exports to GDP ranges from 25 % in the UAE to 46 % in Bahrain, the fraction of migrants in the workforce ranges from 53 % in Saudi Arabia to 94 % in Qatar.

In Figure 2 we plot, for each host country, the amount of remittances per non-citizen worker against migrants' dependency ratio, expressed as the total non-citizen population over the number of non-citizen workers. While the migrants' dependency ratio is low in all the host countries, there is a negative correlation with the amount of remittances sent. Hence, in countries where migrants bring along their family the remittance outflow is generally less. A simple explanation is that most of the

Figure 1: Oil dependency and migrants



Data source: GCC Statistical bulletin 2011, Volume Nineteen. (Data from 2009)

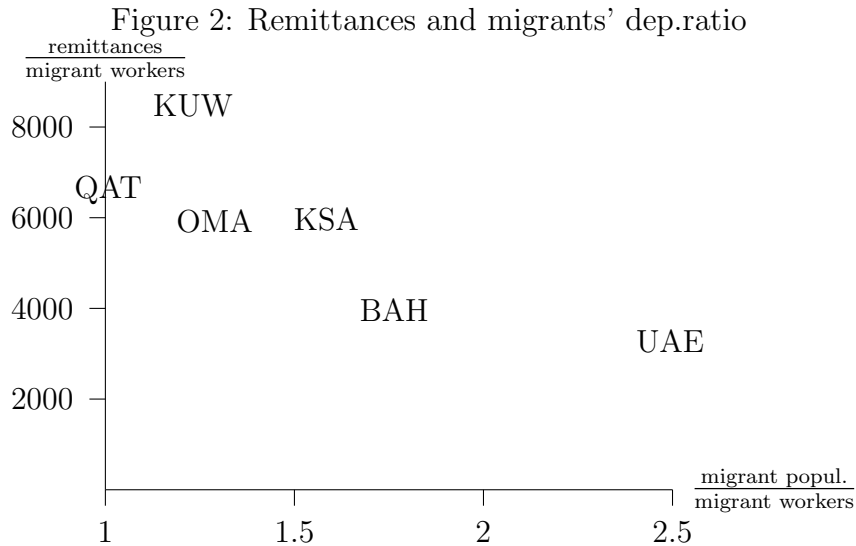
household income is spent in the home country when the migrant travels alone while it is spent in the host country when the rest of the household also migrates. Hence remittances outflows are intimately linked to policies restricting the guest-workers to bring their families.

The remittance outflows, estimated at 61 billion USD and 6,7 % of GDP for the whole GCC area in 2009 (CEIC Data), have a large impact on the Gulf economies and represent an important source of capital for the poorer migrant sending countries. The migration policies and ambitions for assimilation followed by the Gulf countries are an important determinant of these flows. This serves as a motivation for studying how preferences for migration policies are determined in these countries.

In this paper we focus on two policy dimensions: a) the number of migrant workers allowed into the country and b) the use of permits and regulation to control the assimilation and duration, where shorter duration implies larger amounts remitted.¹

While migrant workers contribute to domestic production and demand, they also channel demand out of the country by sending money back home. The inflow of

¹Lucas and Stark (1985) argue that temporary migrants who intend to return home are likely to send more remittances, as they might wish to invest in "fixed capital such as land, livestock, or a house, in public assets to enhance prestige or political influence, and in what might be termed social assets - the relationships with family and friends" (page 904). Dustmann and Mestres (2010) investigates empirically migrants' remittance behavior in a panel data study of immigrants in Germany. They find that temporary migrants send more remittances than permanent migrants, even when they condition on the location of the immediate family.



Data sources: GCC Statistical bulletin 2011, Estimates on remittances are from the database CEIC Data.

migrant workers pushes the wage level down and increases goods demand. The more money they send out the smaller the demand pressure on domestic prices. The costs and benefits for a particular citizen will depend on that citizen's sources of income and consumption pattern. In the following we build a model that highlights the effects on various citizens' welfare via shifts in functional income distribution and purchasing power, as the number of migrant workers change and as their remittance-sending behavior changes.

We find that different social groups have conflicting interests in regard to the two policy dimensions, and so policy outcomes are going to depend on the political influence of the various groups. For example: Individuals who earn all income from oil rents will want to see both high inflow of migrants and high outflow of remittances. The workers on the other hand will like to see minimal mitigation and minimal remittances. The capitalists, earning profits in the non-traded sector, would like to see high migration and minimal remittances.

There has been some theoretical modeling of the welfare effects of migration. Some studies focus on the effects on the returns to unskilled labor versus the returns to physical or human capital. Borjas (1995) develops a simple model of a single-good economy and shows that natives benefit from migration as long as migrants are sufficiently different from the natives in terms of their productive inputs. In

particular, if only natives own capital migration leads to an “immigration surplus”: While the wage decreases, this is more than offset by the increase in the return to capitalists as capital becomes relatively more scarce. Benhabib (1996) uses a similar framework for a political economy model, where natives vote on immigration policies that impose physical or human capital requirements on immigrants. In his model, majority voting will go in favor of welcoming migrants with a different capital endowment relative to the median voter. In our model, as we focus on resource rich economies, resource income plays the crucial role in determining the preferences for migration.

In our focus on the effect of migrants’ remittances on citizens’ welfare our work relates to Kondoh (1999), who distinguishes between the welfare effects of cross-border migrants versus permanent migrants, where the former are assumed to spend their entire income abroad. His model implies that remittances has a positive effect on citizens’ welfare when the non-traded sector is labor intensive and negative when it is capital intensive. In our model, the positive effect of remittances on the average citizen’s welfare is due to the increase in the real value of oil rents. The real value of profits and the real wage decrease as an increase in remittances lowers the price of non-traded goods by reducing demand pressure.

Our model also differs from the above by considering the welfare effects for individuals who are heterogeneous in the sources of income. While citizens who are largely dependent on wage income lose from increases in both migration and remittances, citizens who earn a large share of their income from profits gain from increases in migration but lose from increases in remittances. Finally, citizens with a high share of oil rents income gain from increases in both migration and remittances.

The relative importance of income streams in turn varies with the levels of migration and remittances. This can lead to nonlinearities in the support for migrants. For instance, the real value of even a small share of oil rents will become large when the stock of migrants is large. This implies that a wage earner with a small share of oil rents may for a sufficiently large stock of migrants start to gain from further increases. There is a somewhat similar nonlinearity in the support for illegal migra-

tion in Hillman and Weiss (1999): In an initial state where no migrants are present, the majority of citizens opposes both legal and illegal migration; nevertheless, given a sufficiently large stock of illegal immigrants that is confined to a specific sector, the endogenous policy is to permit even more migrants to enter the country.

To highlight the consequences of resource richness we consider an economy, so rich in natural resources that the traded goods sector, apart from the oil production, is completely closed down. The motivation for this is that large revenues from oil exports have led production in the traded sector to become entirely unprofitable, in line with a Dutch disease argument (see Corden and Neary 1982). In order to focus on the conventional economy we treat the oil-sector as an enclave outside of the conventional economy, generating costless flow of resource rents. Hence, all capital and labor is employed in the non-traded sector. Only citizens own capital while the workers are both citizens and migrants.

With these simplifications we do not explicitly incorporate three important types of workers. First, foreign specialists in the oil sector are not included. Therefore the migrants we consider should be seen as skilled and low skilled regular workers going into the conventional economy. Second, citizen workers in the oil sector are not included. If their wage is at par with the non-traded sector their interest is aligned with citizen workers in general. If their wage in the oil-sector is set independently, their interest will be aligned with other oil rent earners. Third, government employees are not included. Most Gulf states have large government sector with primarily citizen employees. These employees earn a wage, subsidized by oil rents, that is far above the market wage. Hence, the interest of government employees would be aligned with the interest of other oil rent earners.

We use the model to derive winners and losers among the citizens of policy reforms affecting migration and remittances. We derive implications for how an oil rich king might distribute wealth in order to secure support for his preferred migration policy. We also show that a liberal migration policy will gain increased support as the stock of migrants increases. Finally, we discuss the implications of our model in light of past developments in the various Gulf countries.

2 Model

The model we develop is a simple two goods macro model. It is a degenerate version of a traded/non-traded goods model as we assume that there is no domestic production of traded goods. Traded goods are imported and paid for by the oil rents. Hence, traded goods imports, denoted by M , are financed by oil rents Z net of remittances R . We do not model the oil sector explicitly, nor do we consider the amounts saved in sovereign wealth funds. Rather, we treat the use of income from oil exports, Z as exogenously given (by policy and the oil price).

$$M = Z - R \tag{1}$$

There are two types of individuals: Citizens, N_c , and migrant workers, L_m . Some of the citizens are also workers, L_c . When L_m is measured in efficiency units, and when assuming inelastic labor supply, total labor supply L is

$$L = L_m + L_c \tag{2}$$

While migrant workers only receive wage income w , citizens may receive income from three different sources. Citizens' possible income sources consist of a share of the national oil wealth (z_i), profit earnings (π_i), and wage income (w_i). Total income of a citizen individual is given by:

$$y_i = w_i + \pi_i + z_i, \quad i = 1 \dots N_c \tag{3}$$

The wage income may be zero or it may be equal to the general wage rate w . This captures the fact that citizens, at least in principle, compete with migrants for the same jobs.²

The higher wage level of Gulf citizens in general is due to policies rather than higher productivity. Thus, we can think of the wage income of Gulf citizens as

²In reality, most Gulf citizens earn higher wages than most migrant groups both in the private and in the public sector. The reason is policies put in place by the government, aimed at securing Gulf citizens well-paid jobs. Nevertheless, these policies are put in place precisely because of rising unemployment rates stemming from increased competition with migrants.

consisting of shares of oil rents or profits, depending on the incidence of the extra cost of employing a citizen rather than a cheaper migrant worker. In the following, we reserve the term “wage” as referring to the competitive wage. Using traded goods as numeraire, the aggregate citizen income is given by:

$$Y_c = wL_c + \Pi + Z \quad (4)$$

where Π denotes total profits.

While citizens are assumed to spend all their income on consumption, migrant workers may send a part of their income to their home country as remittances. Aggregate non-citizen income spent in the host country is

$$Y_m = wL_m - R \quad (5)$$

where R is total outflow of remittances. Thus, total income spent in the domestic economy is given by

$$Y = Y_c + Y_m \quad (6)$$

Citizens and migrant workers have identical Cobb-Douglas preferences given by $u_j = c_{Nj}^\alpha c_{Tj}^{1-\alpha}$ where c_{Nj} and c_{Tj} denote consumer j 's consumption of non-traded and traded goods respectively. Maximizing utility subject to the budget constraint $p_N c_{Nj} + c_{Tj} \leq y_j$, where p_N is the price of non-traded goods, we get the demand functions:

$$c_{Tj} = (1 - \alpha)y_j \quad (7)$$

$$c_{Nj} = \frac{\alpha y_j}{p_N} \quad (8)$$

It follows that we can represent the preferences by the indirect utility function

$$v_j = y_j p_N^{-\alpha} \quad (9)$$

where p_N^α is the true cost of living price index.

With expenditure shares given by α , total demand is given by:

$$C_T = \sum_j c_{Tj} = (1 - \alpha)Y \quad (10)$$

$$C_N = \sum_j c_{Nj} = \frac{\alpha Y}{p_N} \quad (11)$$

Non-traded goods, X_N , are produced by the use of capital, K , and labor L . The technology can be represented by $X_N = BL^\beta K^{1-\beta}$. We assume that the use of capital is fixed at $K = \bar{K}$. Since labor is the only variable input, we normalize B such that

$$X_N = L^\beta \quad (12)$$

We also allow for there to be some form of market power in the domestic market, such that the price p_N is set with a mark-up μ over marginal cost:³

$$p_N = (1 + \mu) \frac{w}{\beta L^{\beta-1}} \quad (13)$$

We get regular competitive pricing by setting $\mu = 0$. Profits include the gains from the mark-up plus payments to capital. In other words, profits are what is left when workers have been paid.

$$\Pi = p_N X_N - wL \quad (14)$$

In equilibrium we have that markets clear and trade is balanced, such that

$$M = Z - R \quad (1)$$

$$C_T = M \quad (15)$$

$$C_N = X_N \quad (16)$$

Note the recursiveness of the system with consumption being determined solely by supply. Consumption of traded goods is determined by access to foreign exchange ($Z - R$), while consumption of non-traded goods is determined by total labor supply

³This could for example be the result of monopolistic competition where non-traded goods consist of a given number of differentiated varieties with constant elasticity of substitution in demand.

via (2) and (12). Demand then determines relative prices. By combining (10), (11), (15) and (16) it follows that

$$p_N X_N = \frac{\alpha}{1 - \alpha} M \quad (17)$$

From (17) we see that any change in migration or remittances works via changes in goods available for domestic consumption. While C_N is determined by L , C_T is determined by M . Imports, M in turn is determined by remittances and oil income. Changes in L and M affect both income and relative prices. Solving the system (3)-(16) we can express the key variables p_N , w and Π in terms of the imports M and labor stock L :

$$p_N = \frac{\alpha}{1 - \alpha} \frac{M}{L^\beta} \quad (18)$$

$$w = \beta \frac{1}{1 + \mu} \frac{\alpha}{1 - \alpha} \frac{M}{L} \quad (19)$$

$$\Pi = \left(1 - \beta \frac{1}{1 + \mu}\right) \frac{\alpha}{1 - \alpha} M \quad (20)$$

These equations in combination with (1) and (2) determine how migration (via L) and remittances (via M) affect the determinants of income for the citizens.

3 Analysis

We are interested in understanding how the welfare of different citizens are affected by changes in migration and remittances. Recall that the indirect utility function of citizens is given by $v_i = y_i p_N^{-\alpha}$. We see that the welfare of citizens depends on their real income given by nominal tincome relative to the true cost of living index. In other words, what matters to citizens is what happens to their purchasing power.

Taking log differences of the indirect utility function (9), and using equations (3), and (18)-(20) we find the total effect on utility as a weighted sum of changes in labor supply and imports.

$$\hat{v}_i = \hat{y}_i - \alpha \hat{p}_N = \left(\alpha \beta - \frac{w_i}{y_i}\right) \hat{L} + \left(\frac{z_i}{y_i} - (1 - \alpha)\right) (-\hat{M}) \quad (21)$$

where a hat over a variable indicates relative change. We have the following proposition:

Proposition 1 *A citizen will benefit from more inflow of migrants if and only if his wage share is low: i.e. $w_i/y_i < \alpha\beta \Leftrightarrow (z_i + \pi_i)/y_i > 1 - \alpha\beta$. He will benefit from more outflow of remittances if and only if his oil rent share is large: i.e. $z_i/y_i > 1 - \alpha$.*

In order to gain intuition for the second result note that when remittances increase, the price of non-traded goods decrease. While wages and profits decrease proportionately with the price, the real value of oil rents increases.

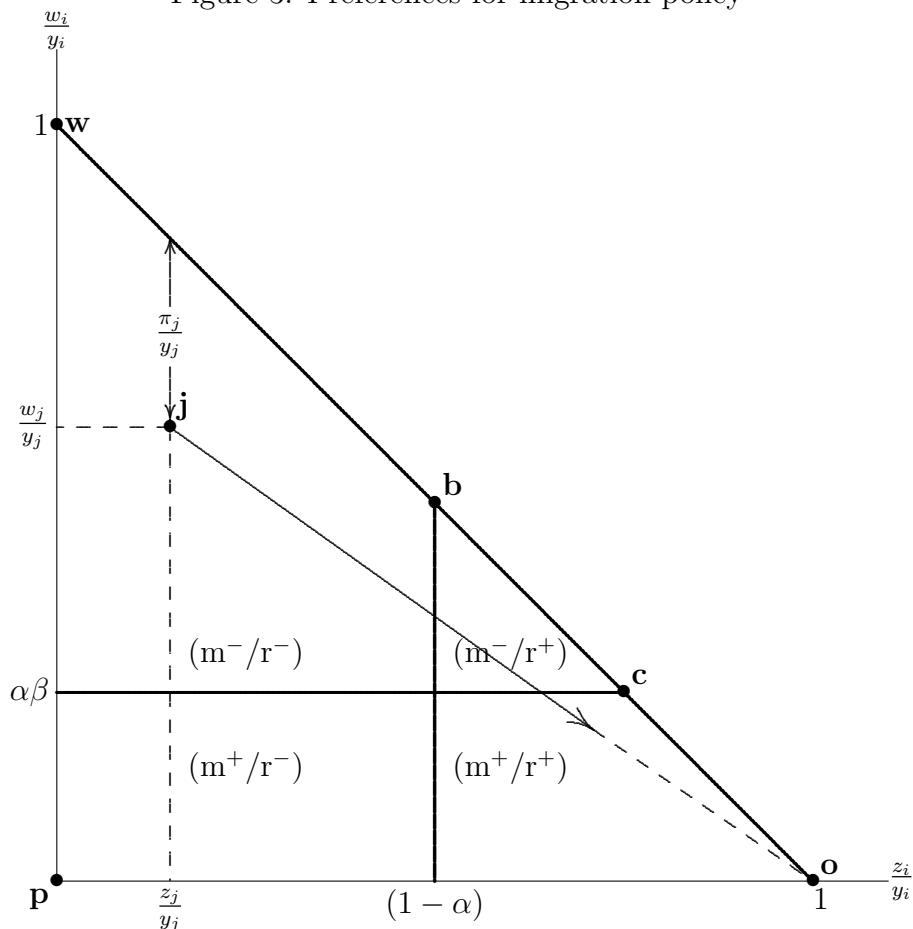
A citizen with $z_i > (1 - \alpha)y_i$ has income from oil rents that is larger than his traded goods consumption. He therefore uses part of the oil rents income for non-traded goods. It follows that his purchasing power increases when the price of non-traded goods go down with an increase in remittances.

A citizen with $z_i < (1 - \alpha)y_i$, however, uses his profit and wage income in part to pay for his traded goods consumption at relative price $1/p_N$. Following an increase in the relative price of traded goods, his purchasing power will drop.

The first result follows by similar reasoning: The purchasing power of a given amount of profits as well as oil rents in terms of traded goods is unaffected by migration. With a larger inflow of migrant workers the wage decreases proportionately more than the price of non-traded goods, as the marginal productivity of labor decreases with β . In order for a citizen to gain from migration, his wage share ($\frac{w_i}{y_i}$) must be less than the share of income spent on non-traded goods by at least the same factor β .

Based on the proposition we can conclude that a citizen worker who relies entirely on wage income would be hurt by increases in migration and remittances. A citizen who relies entirely on income from oil rents, e.g. the king, will benefit from both. Finally, a capitalist who exclusively receive profit income will benefit from migration but will lose from an increase in remittances.

Figure 3: Preferences for migration policy



3.1 Sources of income and migration policy preferences

Figure 3 illustrates citizens' preferences for policy for all income combinations. Measuring the oil rent share ($\frac{z_i}{y_i}$) on the x-axis and the wage share ($\frac{w_i}{y_i}$) on the y-axis, we get a triangular area covering all possible combinations of relative income. The three functional income groups are marked in the triangle's corners: workers in point **w**, capitalists in point **p** and oil rent earners in point **o**. A citizen earning a combination of all three sources will be located in the interior of the triangle. Individual **j** for example earns oil rents z_j and wage income w_j , while his relative profit income $\frac{\pi_j}{y_j}$ is given by the vertical (equivalent to the horizontal) distance to the diagonal.

We know from Proposition 1 that citizens with a wage share, w_i/y_i , smaller than $\alpha\beta$ will support migration, and citizens with an oil rent share, z_i/y_i , larger than $(1 - \alpha)$ will support remittances. This divides the triangle into four subareas, representing the relative income brackets for citizens who share preferences for policy. Citizens in the upper left area are against both increases in migration and in remit-

tances. They would like to see a drop in both. Hence the label (m^-/r^-) , where m and r stands for *migration* and *remittances* respectively. The lower left area, labeled (m^+/r^-) contains citizens with predominantly profit income. This group benefits from migration but would like to see a reduction in remittances. Citizens in the lower right area (m^+/r^+) have a high oil rent share, and support increased migration and would like to see an increase in remittance outflow. Finally, there is the group in the (m^-/r^-) region with some mix of oil rents income and wage income but little profit income. This group would like to see less migration while they gain from an increase in remittances. migration hurts them because their wage is depressed, but they benefit from remittances because the value of their oil rents go up.

3.2 Securing citizens' support for migration

In the Gulf economies, with their powerful monarchies, the interest of the king tends to prevail. But also in such non-democracies some degree of popular support is needed in order to implement policies. As made clear in Proposition 1 the king and his family, with oil revenue as the prime income prefers a large number of migrant workers and they prefer migrants to remit. Referring to Figure 3 we see that he will get support for such a policy by all citizens in the (m^+/r^+) region, who has quite a large fraction of income from oil rents. At the outset there might be few citizens in this region. If, for example, the king alone controls the oil rents all citizens will be located along the $\mathbf{w-p}$ line and only the king will be in favor both of a high number of migrants that send out remittances. In a situation with limited support, the king could compensate the citizens with cash handouts. This would only work, however, to the extent that the citizens accept that these handouts are an integral part of a package that also includes them welcoming remitting migrants.

The option for the king if he wants a majority of citizens to have personal interests that are aligned with his own is to distribute part of the oil rents. If he distributes sufficient oil rents it actually becomes in the interest of the citizens to support remitting migrants. An example is illustrated by the arrow in Figure 3. Here a citizen located at point \mathbf{j} is given oil rents that shrinks the relative importance of

wage income and profit income, and by the transfer he is moved into the (m^+/r^+) region. The movement is linear towards point \mathbf{o} .⁴

The cost of such a policy depends on the general income level of the targeted citizens. The least expensive ones are those who have modest income at the outset, and who are close to the (m^+/r^+) region. Citizen \mathbf{j} was quite far away and the movement of citizen \mathbf{j} represents an additional oil rents income equal to twice the original income, $\Delta z_j = 2y_j$. The general rule is that if citizen i gets additional oil rents income equal to the income at the outset, $\Delta z_i = y_i$, the position of citizen i is moved half the distance toward point \mathbf{o} .

How much oil rents does the king have to transfer to a pure wage earner in order to gain his support? To answer this question, we use second part of Proposition 1, labeling the transfer z_i^b and inserting for $y_i = z_i^b + w_i$. The condition for benefiting from migration is

$$\frac{z_i^b}{z_i^b + w_i} \geq 1 - \alpha \Leftrightarrow z_i^b \geq \frac{1 - \alpha}{\alpha} w \quad (22)$$

We see that the transfer must be larger the larger the wage and the smaller the expenditure share of non-traded goods. In particular, with equal expenditure shares an oil rent transfer of an amount equal to the wage is needed in order to convert a wage earner, who is hurt by remittances, into an individual supporting more remittances. In Figure 3 such a transfer will move the citizen from the worker position \mathbf{w} to point \mathbf{b} . At this point, the worker supports remittances, but he loses from increases in migration.

Gaining the wage earner's support for migration requires an even larger transfer. Using the first part of Proposition 1, labeling the transfer z_i^c we get

$$\frac{w_i}{z_i^c + w_i} \leq \alpha\beta \Leftrightarrow z_i^c \geq \frac{1 - \alpha\beta}{\alpha\beta} w \quad (23)$$

With equal expenditure shares and wage share in non-traded production of $2/3$

⁴To see this, recall that at any point in the diagram, $\frac{\pi_i}{y_i}$ is given by the vertical distance to the diagonal, and $\frac{w_i}{y_i}$ is given by the vertical distance to the x-axis. Their ratio is given by $\frac{\pi_i}{w_i}$, which is unchanged by increases in z_i .

would require a transfer of twice the wage in order to convert a wage earner into an individual supporting both more migration inflow and remittances outflow.

In the derivations above we considered requirements for support for both migration *and* remittances. The (m^+/r^+) region contains these citizens. If the king in fact manages to attract migrant workers who remit a large share of their income he could also count on the support of some of the citizens in the (m^-/r^+) region. These citizens dislike migrant workers but have sufficient oil rent income to benefit from remittances and might actually be better off if the incoming migrants remitted most of their income. Similarly, the king can also count on the support for remitting migrants from some of the citizens in the (m^+/r^-) region. These citizens benefit from migration but lose from remittances. Nevertheless, the gains from migration exceed the loss from remittances for some of them.

In order to explore these possibilities we consider the case where migrant workers remit their entire income. Denoting the increase in labor supply by dL and the change in imports implied by the remittances by dM , we have $dM = -wdL$. Then it follows from (19) that

$$\hat{M} = -\beta \frac{1}{1+\mu} \frac{\alpha}{1-\alpha} \hat{L} \quad (24)$$

Inserting in (21) we get

$$\hat{v}_i = \left[\frac{\mu\alpha\beta}{1+\mu} + \frac{\alpha\beta}{(1+\mu)(1-\alpha)} \frac{z_i}{y_i} - \frac{w_i}{y_i} \right] \hat{L} \quad (25)$$

This is positive for

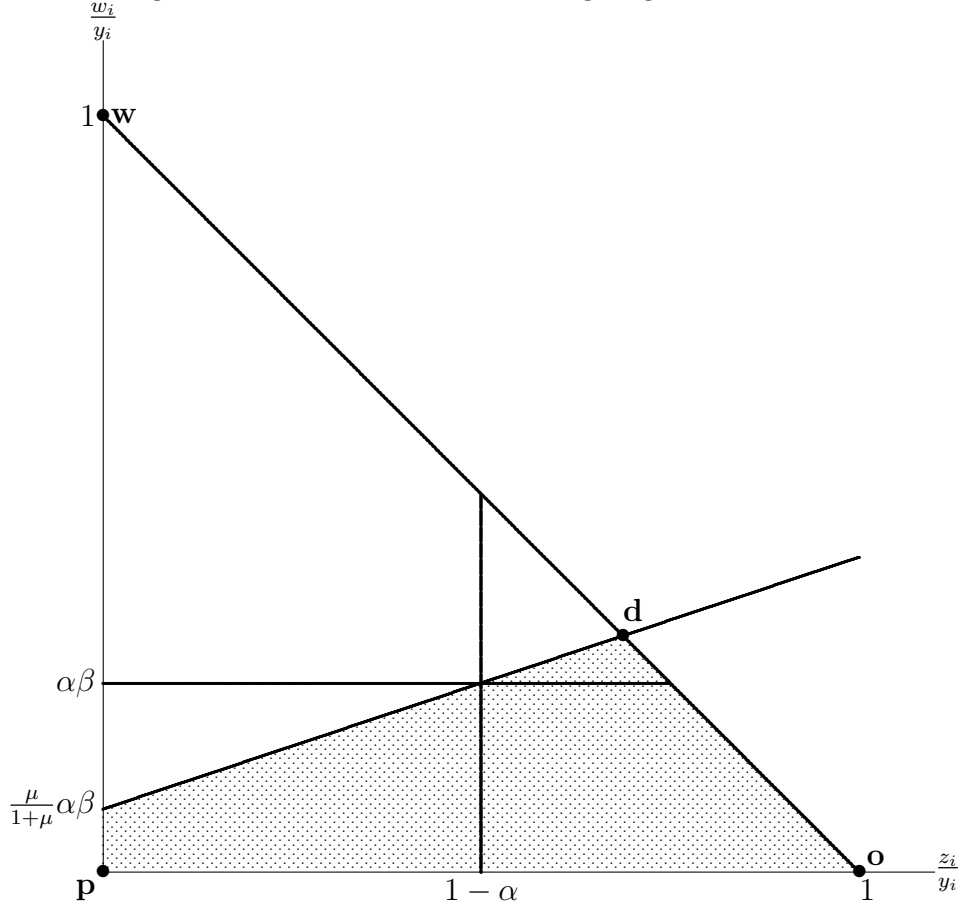
$$\frac{w_i}{y_i} < \frac{\mu\alpha\beta}{1+\mu} + \frac{\alpha\beta}{(1+\mu)(1-\alpha)} \frac{z_i}{y_i} \quad (26)$$

The shaded area in Figure 4 captures citizens who will support migration policies that attract workers who remit their entire income. This group is represented by the shaded area in Figure 4. In particular, pure capitalists support these remitting migrants.⁵

Now, a transfer that moves a citizen worker to point **d** is sufficient to gain his support for migrant workers, given that they remit their entire income. This transfer

⁵When the mark-up, μ , is positive they benefit, while they are indifferent when $\mu = 0$.

Figure 4: Preferences for remitting migrant workers



is given by

$$z_i^d = \frac{1}{1+\mu} \frac{1+\mu(1-\alpha\beta)}{1+\mu(1-\alpha)} \frac{M}{L} \quad (27)$$

A final alternative for the king would be a second best policy of attracting migrant workers who do not remit. In that case he could count on the support from the entire (m^+/r^-) region. This would be the preferred alternative in a country with a strong bourgeoisie middle class, who do not receive a large part of the oil rents. In such an economy important segments of society would be distributed along the $\mathbf{w-p}$ line, and competition could drive down μ . Then opening up for non-remitting permanent migrants would get support that remitting migrants would not get. The bourgeoisie would benefit from cheap labor in combination with increased product demand, provided that wage constitutes less than a share $\alpha\beta$ of their income.

The derivations above was done under the assumption that the income composition was unaffected by migration. This is the appropriate assumption when

considering a marginal increase in migration. When evaluating large-scale migration, however, we need to take into account how migration itself affects income composition.

3.3 Support for large-scale migrant inflow and remittance outflow

From Proposition 1 we know that a citizen with a sufficiently low wage share will support more migration. From (19) and (20) we also see that the wage share will decline to zero for L_m sufficiently high. Hence, anyone who has another income source than wage income will, for sufficiently high migration, benefit from even more migration.

There is a similar result for an increase in remittances. From (19) and (20) we see that both the wage and profits decrease with remittances. This means that anyone who has a share of oil rents will support an increase in remittances if they become high enough.

We illustrate this in Figure 5. Using (19) and (20) we can write $w = K_w M/L$ and $\pi_i = K_{\pi,i} M$, where $K_w = \beta \frac{1}{1+\mu} \frac{\alpha}{1-\alpha}$ and $K_{\pi,i} = \left(1 - \beta \frac{1}{1+\mu}\right) \frac{\alpha}{1-\alpha}$. Write the coordinates of citizen \mathbf{j} in the following way:

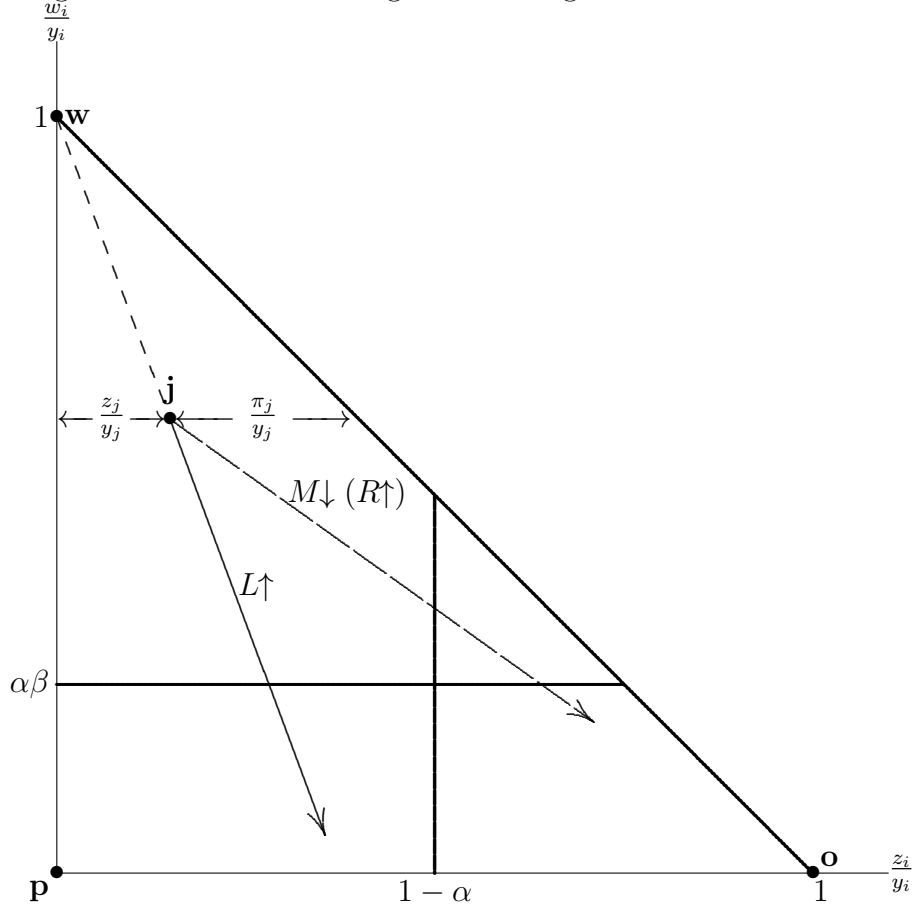
$$\left(\frac{z_j}{y_j}, \frac{w_j}{y_j}\right) = \left(\frac{z_j}{K_w M/L + K_{\pi,j} M + z_j}, \frac{K_w M/L}{K_w M/L + K_{\pi,j} M + z_j}\right) \quad (28)$$

First note that the coordinates are unaffected by growth in z_j that is proportional to growth in M . Hence, the effect of a 1 percent drop in imports, caused by an increase in remittances, is equal to the effect of 1 percent growth in z_i . Therefore, the effects on \mathbf{j} 's position, from an increase in remittances, is similar to that explored in section 3.2, with regards to an increase in oil rents. This means that an increase in remittances gives a linear movement towards \mathbf{o} , illustrated by the dashed arrow in figure 5. This means that for a sufficient amount of remittances, the citizen will start benefiting from further increases in both migration and remittances.

The effect of growth in L can be analyzed in a similar way. First note that as

L approaches zero $(\frac{z_j}{y_j}, \frac{w_j}{y_j})$ approaches \mathbf{w} . Growth in L will take citizen \mathbf{j} in the opposite direction in a linear manner (see the solid arrow in figure 5). To see this, recall that $\frac{\pi_i}{y_i}$ is given by the horizontal (equivalent to the vertical) distance to the diagonal, while $\frac{z_i}{y_i}$ is given by the horizontal distance to the y-axis. Their ratio, given by $\frac{\pi_i}{z_i}$, is unchanged by an increase in L , as long as π_i changes proportionally with total profits, given by equation (20).

Figure 5: Preferences and growth in migration and remittances



We can prove an even stronger result, namely that a citizen with some income other than wage income will for a sufficiently large number of migrant workers, actually prefer more migrants to less migrants. There is a corresponding result for remittances: Any citizen with some share of oil rents will for a sufficiently high outflow of remittances be in favor of policies that stimulate remittances to policies that prevents remittances. We have the following proposition

Proposition 2 a) *For a citizen with some non-wage income there exists a level of migration sufficiently large so that the citizen prefers any number of migrant workers*

beyond that level to any lower level of migration. **b)** For a citizen with some oil rents income there exists a level of remittances sufficiently large so that the citizen prefers any quantity of remittances beyond that level to any lower level of remittances.

Proof. Using (18)-(20), (9) can be written

$$v_i = v_i(L, M) = v_{i,0} \frac{\left(\frac{M}{L^\beta}\right)^{-\alpha} (K_w M/L + K_{\pi,i} M + z_i)}{\left(\frac{M_0}{L_0^\beta}\right)^{-\alpha} (K_w M_0/L_0 + K_{\pi,i} M_0 + z_i)} \quad (29)$$

where subscript 0 indicates the levels of welfare $v_{i,0}$ and wages w_0 , labor supply L_0 , imports M_0 in the starting case with no migration and no remittances.

By increasing L , v_i can be increased above $v_{i,0}$ and beyond bounds as long as $K_{\pi,i} M + z_i = \pi_i + z_i > 0$ which proves a).

By lowering M , v_i can be increased above $v_{i,0}$ and beyond bounds as long as $z_i > 0$ which proves b). ■

The result that any citizen, even with minimal non-wage income, eventually will benefit from migration rests on the assumption that the wage can be driven down close to zero. In reality, of course, the reservation wage of the migrants will be binding and Proposition 2 is therefore only relevant for citizens with sufficient non-wage income.

4 Discussion

We have seen from the above analysis that there will be conflicts of interests between different groups with regards to migration policy. While workers would wish to close the borders for labor migration, capitalists and oil rent earners would want as many migrant workers as possible. Another coalition of interest forms with regards to remittances. While oil rent earners would want to encourage migrant workers to send large amounts of remittances, workers and capitalists would like the migrant workers to spend their income domestically (e.g. granting the migrants permanent residence permits). In the following we argue that these conflicts of interest are instrumental in understanding the development of the segregated societies that we see in the Gulf countries today.

4.1 Migrant workers in the Gulf countries

In the first face of labor migration to the Gulf region migrant workers came mainly from neighboring labor abundant Arab countries. Workers from these countries could provide the necessary skills to take advantage of the oil discoveries and build the modern economies of today. The Arab migrants integrated easily as they often shared language, culture and religion, and they settled down in the Gulf countries with their families.

In the last decades there has been a shift towards fewer Arab and more Asian migrants. The Asians normally stay for shorter periods and send money to their families that they leave behind. A range of new policies creating a very segregated society has accompanied the increase in the number of Asian migrants. Gaining citizenship or bringing along family has become nearly impossible. Residence permits are short-term, normally with duration of two or three years, but can be renewed. The scope of this policy is presumably to bring labor into the country during economic booms that is easily expelled during slumps.

According to Kapiszewski (2006) the shift towards Asian migrants and the restrictive policies are due mainly to security, social and cultural threats. In particular, he points out that the Gulf authorities became worried about Arab migrants bringing and spreading radical social and political ideas such as a calling for the abolition of monarchies in the Gulf. Our analysis suggests another possible explanation. The shift towards Asian migrants accompanied by the new restrictive short-term foreign worker programs may also have contributed to the substantial increase in remittances over the period. Asian migrants have weaker cultural ties to the Gulf countries than the Arab migrants, and are more likely to maintain strong relationships with their countries of origin and thus remit most of their income. According to our analysis, an increase in remittances benefits the oil rent earning elite in the Gulf. The shift to Asian migrants are therefore perfectly understandable given the elite's economic interests.

Even though the Gulf countries are autocracies, and that the oil wealth is controlled by the king or emir it is important to remember that also the dictatorship

of a king depends on the support of the people. Moreover, some groups have more political influence than others. This means that the conflicts of interests between different income groups will have an impact on the policy followed by the king. Their impact will depend on how dependent the king is on their support. In the following we will look a little closer at some examples of political struggles in light of the predictions of our model.

4.2 Political struggles

While all the Gulf countries are autocracies, there are some differences in their political environment. Kuwait stands out as the only Gulf country with a relatively well-functioning parliament, holding generally free and fair elections. While all the other Gulf countries are rated as “not free” by Freedom house (2012), Kuwait is rated as “partly free”. However autocratic, rulers also need to content the people to some extent in order to avoid revolution. This is of current interest in the aftermath of the Arab spring, where autocratic regimes have been overthrown one after the other. In this connection, it is relevant that citizens are content with migration policies, as migrant workers are an integrated part of society. Without any intervention from the government, migrant workers represent a threat for citizen workers as they compete for jobs and drive down wages, in line with our analysis. In the Gulf countries, the government intervenes by giving citizens precedence in public employment and certain privileged positions in the private sector, where they receive high wages. In addition, citizens are provided with a range of subsidies and transfers. With such intervention, migrant workers generate convenience rather than being a threat, as they provide cheap services. The contributions given to the citizens are in effect transfers of oil rents. We have seen from our analysis that distributing enough oil rents to workers ensures that they benefit from migration and remittances, as non-traded goods become cheaper.

Herb (2009) discusses the political participation in the fast-growing and economically diversified UAE, compared to Kuwait that remains highly oil-dependent. He points out that the ruling families in the UAE not only control the substantial oil

wealth but are also the main shareholders in the private economy. While Kuwait's parliament represents citizens, who are mainly public sector workers, policy in the UAE reflects the interests of the oil-rich and capitalist ruling families. In the UAE, the government rather satisfies capitalist interests in spending on e.g. major infrastructure projects. This means that regular citizen workers are largely left out from the national oil wealth. Also, while migrant workers are not a point of contention in Kuwait, in the UAE there seems to be more discontent over the issue. Obviously, the very authoritarian rule in the UAE limits the freedom of speech, however, surveys witness a widespread concern with the large numbers of migrant workers (Herb 2009). This pattern fits well with our model, which predicts that citizen workers who are not given a share in the oil wealth will oppose labor migration.

The political cleavages may manifest in differences in the regulations of migrant workers. Although the Gulf countries are very similar in these regulations, there are a few exceptions. During the last years some of the Gulf countries have altered the regulations on change of employment. Until 2007 migrant workers in all Gulf countries who wished to change employment had to obtain a No Objection Certificate (NOC) from the employer, giving consent to the worker being hired by another firm. If a migrant worker wishes to end his employment he must leave the country. By abolishing this requirement, migrant workers are enabled to move freely between employers. This also means that they more easily can renew their work permit and stay for longer periods. With a longer horizon, it is likely that the migrant workers will be more inclined to invest in a life in the Gulf rather than sending money to their countries of origin.

While Bahrain and Oman have fully abolished the NOC, Kuwait announced it would do the same before January 2011, however, the requirement is still fully enforced. In Saudi Arabia the NOC is not required if the previous employer were below required targets for nationalization of the workforce (firms are encouraged to hire national rather than foreign workers). The UAE removed the NOC requirement fully for free zones and for high-skilled workers, while it is not required for semi-skilled and low-skilled workers after completing two years of employment (GulfTalent

2012). Qatar is now the only Gulf country that has no plans of abolishing the NOC requirement. The explanation for this might be that Qatar is both a very oil-dependent and very autocratic country. The members of the ruling elite are rentiers and have no interest in having the migrants spend their income domestically.

The recent changes in regulation in the GCC countries (except Qatar) have been given grounds for by human rights concerns. However, the predictions of our model suggests that the changes might be due to political pressure from groups who are not given a sufficiently large share of oil rents and see their common interest in having migrant workers integrate and stimulate domestic markets. According to AlHasan (2012) labor unions and workers supported the labor market reform in Bahrain that removed the NOC. The workers' support of the labor market reform is in line with the predictions of our model: Wage earners oppose migration, however, given the presence of migrant labor, citizen workers would like them to spend their income in the domestic economy. The reform gives migrants more freedom that incentivizes them to invest their income domestically rather than sending it abroad.

5 Conclusion

In this paper we have explored the effect of labor migration on the Gulf economies, and how preferences for migration policies depends on the structure of the economy and on the political influence of various groups. We have seen that labor migration leads to a drop in wages, hence citizens depending solely on wages lose. In contrast, capitalists and oil rent earners will benefit as the price of non-traded goods drop. The effect of migrant workers' remittances is that the value of a rent given in foreign exchange increases when foreign exchange is remitted out of the economy. This is to the benefit of oil rent earners. Capitalists and workers, however, lose from more remittances. These conflicts of interests between the various groups have several implications. The migration policy will stimulate migrant workers with strong ties to their country of origin (high remittances) if the oil rent earners dominate the policy. The policy will stimulate a large number of migrant workers with weak ties (low remittances) if the profit earners dominate. The policy will go in the direction

of few migrants if citizen workers dominate the policy making.

These results may explain the differences in migration policy between different Gulf economies, in particular depending on the sharing of oil rents and on political influence of the working class. The results also contain predictions with regard to expected policy changes if and when the Gulf economies go in more democratic directions. The democratization of the Gulf economies may take several forms. a) If democratization implies that citizen workers get to decide, migrants may be expelled, however b) if democratization also implies that all citizens gets a share of the oil rents, short term migrants, who remit, may be invited in even larger numbers. Lastly c) if democratization implies that the capitalist middle class gets to decide then the policy may swing in the direction of permanent migrants, who remit less and who stimulate the domestic non-traded economy. With such diverging interests it is not at all obvious what consequences far reaching democratization will have. What is clear, however, is that the capitalist middle class and oil rent earners have good reasons to fear alternative a). The capitalist middle class may therefore be reluctant to push for democratization. Particular in the most unequal of the Gulf economies.

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