

# Electoral concerns, special interests and illegal immigration

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## Motivation

*“The single most critical issue to protect our nation is the securing of our borders and our ports. (...) At the same time, our government turns a blind eye to the thousands of people who illegally cross our borders. These scenarios exists because corporate America has convinced our leaders that this is one of the best ways to remain competitive” Lou Dobbs*

- How important is really the problem of illegal immigration?

## Motivation

<b>Country</b>	<b>Stock</b>	<b>Share of foreign pop</b>	<b>Year</b>	<b>Flow</b>	<b>Year</b>
US	12000	32.4	2008	500	2008
EU 15				650	2001
Austria	100	10.8	2003	50	2001
Italy	650	22.1	2008	100	2001
Germany	500	7.4	2005	90	2001
Greece	250	43.8	2007	80	2001
Spain	570	10.9	2008	40	2001
UK	725	11.1	2007	95	2001

**Table:** Estimates of stock and flows of illegal immigrants in thousands (Fasani, 2009)

## Motivation

- The size of the phenomenon might suggest that governments are not able to effectively implement their “official” migration policies.
- At the same time, empirical evidence suggests that migration policy enforcement is negatively correlated with the recent patterns of economic activity in sectors which intensively use illegal immigrants (Hanson and Spilimbergo 2001)
- Fasani (2009) finds evidence that across provinces/regions in Italy domestic enforcement is negatively related to the local labor demand.

## Motivation

- If governments are *not* willing to stick to their official policies, why do they set such policies in the first place?
- The purpose of this paper is to address this apparent puzzle focussing on the role of electoral concerns and lobby pressures
- We will show that because of electoral and lobby pressures a government may strategically set an official migration target to appeal to voters, while relaxing its enforcement to please lobbies.

# Plan of the Talk

- Related literature
- Theoretical Framework
- Main Results
- Welfare analysis
- Comparative statics
- Conclusions

## Related literature

- Several papers have considered the policies that should be implemented by a welfare maximizing government to limit the inflow of illegal immigrants.
  - Ethier (1986)
  - Bond and Chen (1987)
  - Woodland and Yoshida (2006)
- Few papers have modeled the political economy of illegal immigration
  - Diajic (1987)
  - Hanson and Spilimbergo (2001)
  - Hillman and Weiss (2001)
  - Fasani (2009)
- In our paper, we will also focus on the political economy forces driving the presence of illegal immigration.
- Differently from the existing contributions, in our model the phenomenon arises endogenously as the result of the *migration policy* chosen by the government, i.e the official migration target and its enforcement.
- We use a *political agency framework* where re-election incentives under imperfect information can be explicitly analyzed (Besley 2006)

## Economic environment

- *Home* produces one good according to a constant returns to scale production function  $Y = F(K, L)$ , where  $K$  is the stock of capital  $L$  is total employment.
- The economy is populated by a continuum of native individuals, indexed by  $i \in [0, 1]$ , and the population size is normalized to unity.
- Every native  $i$  supplies the same exogenously given amount of labor, and is endowed with a fraction  $\lambda_i$  of the overall capital stock  $K$
- Admitting immigrants leads to welfare gains for Home bounded by the presence of a “congestion” cost  $c(I)$ , differentiable, increasing and convex
- The inflow of foreign workers can be limited incurring a linear enforcement cost  $e(I) = \eta(\hat{I} - I)$ , where  $\hat{I}$  is the supply of foreign workers and  $I$  is the target chosen by the government.
- The supply  $\hat{I}$  of foreign migrants is *high* ( $\bar{I}$ ) with probability  $p$  or *low* ( $\underline{I}$ ) with probability  $(1 - p)$

## Preferences toward immigration

- For any given  $\hat{T}$  the average citizen's welfare is given by

$$S(I) = \pi(I) + w(I) - c(I) - \eta(\hat{T} - I) \quad (1)$$

where  $\pi(I)$  is the return to immobile capital and  $w(I)$  is the wage.

- We denote by  $m$  the median voter and by  $\lambda_m$  his share of the overall capital stock.
- Typical wealth distributions imply that  $\lambda_m < 1$ . The utility of the median voter can be written as follows

$$u_m(I) = \lambda_m \pi(I) + w(I) - c(I) - \eta(\hat{T} - I) \quad (2)$$

- It is easy to show that as long as the utility is concave, the number of migrants preferred by the median voter is an increasing function of his share of capital

## Illegal Immigration

- In the first period, policy makers do not observe the supply of foreign workers
- They announce a policy to admit a number of migrants given by a weighted average of the number of migrants which would be optimally chosen under the two possible realizations of  $\hat{I}$
- Let  $\underline{I}^*$  and  $\bar{I}^*$  respectively be the amount of immigration chosen by a social welfare maximizing government when the state of the world is *low* and *high*
- Given the probability of the state of the world, a social surplus maximizer chooses a number of migrants equal to the weighted average of  $\underline{I}^*$  and  $\bar{I}^*$ , where the weights are given by the probabilities  $1 - p$  and  $p$  respectively.

$$I^* = (1 - p)\underline{I}^* + p\bar{I}^* \quad (3)$$

- The corresponding policy enforcement cost is

$$e(I^*) = (1 - p)\eta(\underline{I} - I^*) + p\eta(\bar{I} - I^*) \quad (4)$$

- Ex-post, this enforcement level will turn out to be sub-optimal. To understand this point, consider the following figure

## Enforcement cost, uncertainty and illegal immigration

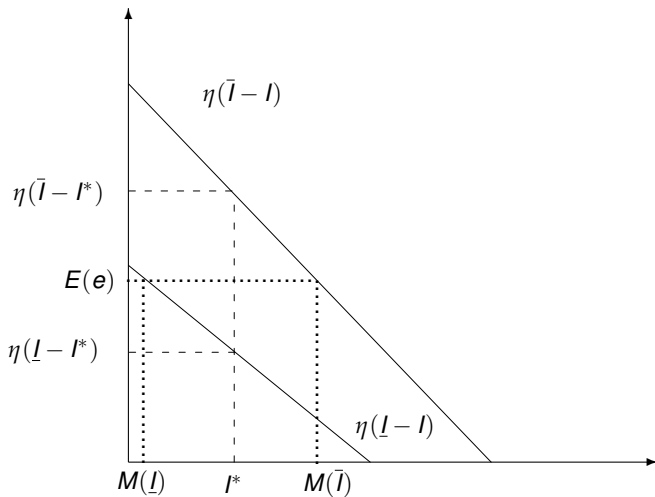


Figure: Illegal immigration

## Illegal immigration

- Because of the uncertainty on the state of the world, the “actual” number of immigrants is in general different from the officially announced policy  $I^*$
- If the true state of the world is  $\bar{I}$ , then  $M(\bar{I}) - I^*$  is the amount of *illegal immigration* (too little enforcement)
- If the true state of the world is  $\underline{I}$ , then  $M(\underline{I})$  is the actual number of immigrants admitted (too much enforcement).
- $M(\bar{I}) - I^*$  is the amount of *illegal immigration* due to imperfect information on the state of the world (constrained-efficient illegal immigration)
- Suppose now that within this framework we introduce electoral incentives. How will this affect migration policy (i.e. target and enforcement)?

# The game

- *Players*: Incumbent, challenger, median voter
- *Strategies*: migration policy (i.e. announced immigration target, enforcement policy), voting
- *Timing*:
  - Individuals in this economy live for two periods  $t \in \{1, 2\}$ .
  - Initially, a randomly drawn politician is appointed to choose for period  $t = 1$  the *migration policy*
  - At the end of  $t = 1$  an election takes place between the incumbent and a challenger
  - In the second period  $t = 2$  the elected politician observes  $\hat{I}$ , chooses the *migration policy* and then the world ends

## Information and Beliefs

- There are *two types* of politicians independently drawn from an identical distribution:
  - populist (i.e. shares the same preferences of the median voter) with probability  $\mu$
  - efficient (social surplus maximizer, i.e. shares the same preferences of the average citizen) with probability  $(1 - \mu)$ .
- The type of the politician is only known to the politician himself, but the distribution is common knowledge
- At the time of the policy choice, neither the politician nor the public observe  $\hat{t}$ , but they know its distribution.
- At the end of the first mandate, having observed the target and actual number of migrants (but not their supply nor the amount of enforcement activities), voters revise their beliefs on the type of the incumbent by Bayesian updating, and decide whether to re-elect the incumbent or to replace him with a challenger.

## Information and Beliefs

- We denote by  $P[g = m|M(I)]$  the ex-post probability that the incumbent ( $g$ ) is of the populist type ( $m$ ) when the observed number of migrants is  $M(I)$  and we will focus on *monotonic beliefs*
- Idea: Whenever the median voter observes a number of migrants coinciding with his most preferred one, he does not revise downwards the probability that the incumbent has his same preferences (and viceversa) (Coate and Morris 1995)

# Equilibrium

A perfect Bayesian equilibrium of this game consists of a migration policy, a voting rule and a set of beliefs such that

- a.) voters' beliefs are generated by Bayesian updating,
- b.) the voting rule is optimal given the voters' beliefs and the politicians' strategies
- c.) the incumbent's strategy is optimal given the voters' beliefs and the opponent's and voters' strategies.

## Solving the game

- We solve the game backwards, starting from the second period.
- In the second period, because there are no further elections, the incumbent chooses the policy maximizing his own utility and since  $\hat{\tau}$  is observed by the politician there is no illegal immigration.
- In the first period, the policy choice is more complex because of re-election concerns, and it will crucially depend on voters' beliefs.
- A populist incumbent cannot increase his ex-post probability of being considered populist by choosing any policy different from his most preferred one.
- An efficient type politician choosing his most preferred policy can only decrease his ex-post probability of being considered populist, whereas by “pooling” with a populist, he may raise it.

## Politician's "pooling" strategies

- We focus on three strategies that allow an efficient incumbent to "pool" with a median type:
  - 1 *mimicking* strategy: the efficient politician chooses the same policy of a populist under any state of the world.
  - 2 *under-investment* strategy: it allows the efficient type to "pool" with a populist only if the state of the world is "low"
  - 3 *over-investment* strategy: it allows the efficient incumbent to "pool" with the populist only if the state of the world is "high".

## Under-investment

- The efficient politician announces the same target of a median, but strategically under-invests in enforcement so that
  - If the state of the world turns out to be low, the resulting level of migration is exactly the same one generated by a populist-type under the high state of the world.
  - If the state of the world turns out to be high, the number of migrants entering the country - denoted by  $M_H(I)$ - will be higher than the upper-bound obtained by maximizing social surplus , i.e.  $M_H(I) > M(\bar{I})$ .

## Equilibrium Beliefs

- If the median voter observes a level of migration different from either  $M(\bar{I}_m)$  or  $M(\underline{I}_m)$  he concludes that the incumbent is of the efficient type, i.e.  $P[g = m | M(I) \neq M(\bar{I}_m)] = 0$  and  $P[g = m | M(L) \neq M(\underline{I}_m)] = 0$ .
- If he observes  $M(\bar{I}_m)$ , knowing the probability of each of the two states of the world, applying Bayes' rule we have:

$$P[g = m | M(\bar{I}_m)] = \frac{\mu p}{\mu p + p(1 - \mu)\lambda_H + (1 - p)(1 - \mu)\lambda_L}$$

- $\lambda_H$  ( $\lambda_L$ ) is the probability that an efficient politician generates a given outcome if the state of the world is high (low)
- $\mu p$  is the probability that  $M(\bar{I}_m)$  is generated by a populist politician
- $p(1 - \mu)\lambda_H$  is the probability that it is generated by an efficient politician if the supply of migrants is "high"
- $(1 - p)(1 - \mu)\lambda_L$  is the probability that it is generated by an efficient politician if the supply of migrants is "low".

## Equilibrium Beliefs

- If mimicking was the strategy chosen, then  $\lambda_H = 1$  and  $\lambda_L = 0$ , which implies that  $P[g = m | M(\bar{I}_m)] = \mu$ , i.e. the ex-post probability of the incumbent being populist is equal to the ex-ante probability.
- In other words, mimicking *cannot* generate an upward revision of the ex-ante probability that the incumbent is of the populist type.
- If under-investment was the optimal strategy, i.e.  $\lambda_H = 0$  and  $\lambda_L = 1$ , then:

$$P[g = m | M(\bar{I}_m)] = \frac{\mu p}{\mu p + (1 - p)(1 - \mu)}$$

- Note that  $\frac{\mu p}{\mu p + (1 - p)(1 - \mu)} > \mu$  if and only if  $p > \frac{1}{2}$ .
- Importantly, under-investment can generate an upward revision of the ex-ante probability that the incumbent is a populist only if “pooling” is sufficiently costly for the incumbent ( i.e.  $p$  is sufficiently large).
- We can similarly compute the voters’ beliefs when  $M(I_m)$  is observed (over-investment case)

## Voting

- The sequentially rational voting rule for the median voter is to retain the incumbent if and only if, having observed the actual number of migrants, he believes that the ex-post probability that the incumbent is populist is strictly larger than the ex-ante probability, i.e.  $P[g = m|M(I)] > \mu$ .
- Intuition:
  - If  $P[g = m|M(I)] > \mu$ , then for the median voter it is clearly not optimal to replace the incumbent with a challenger that has a lower probability of being a populist.
  - Similarly, if  $P[g = m|M(I)] < \mu$ , for the median voter it is optimal to replace the incumbent with a challenger that has a higher probability of being a populist.
  - Finally, when  $P[g = m|M(I)] = \mu$ , we can show that dismissing the incumbent is optimal because it induces perfect revelation of types.

## Equilibrium policy

- Given the voting strategy described above, mimicking cannot be an optimal strategy for an efficient incumbent because the ex-ante and ex-post probabilities of being a populist are the same,  $P[\mu|M(\bar{I}_m)] = \mu$ .
- For the same reason, if  $p < 1/2$ , under-investment cannot be an optimal strategy, and the same is true for overinvestment when  $p \geq 1/2$ . This allows us to immediately establish the following result:

**Lemma 1** Suppose that  $p = 1/2$ , then an efficient incumbent chooses his most preferred number of migrants to be admitted and is voted out of office.

## Equilibrium policy

- If  $p > \frac{1}{2}$ , an efficient incumbent may find it optimal to under-invest rather than choosing his most preferred policy and lose elections.
- Assuming no discounting, the payoff from under-investment is:

$$U(\text{under}) = (1 - p)u(M(\bar{I}_m)) + pu(M_H(I)) + (1 - p)u(I^*) + p[\mu u(I_m^*) + (1 - \mu)u(I^*)]$$

- Payoff from choosing his most preferred policy:

$$U(\text{sincere}) = (1 - p)u(M(I)) + pu(M(\bar{I})) + \mu u(I_m^*) + (1 - \mu)u(I^*)]$$

- Under-investment will be preferred when it generates a payoff which is larger than the payoff from the most preferred policy, i.e.  $U(\text{under}) > U(\text{sincere})$ .

## Equilibrium policy

**Lemma 2** Suppose that  $p > \frac{1}{2}$  and let  $\tilde{p}_U = \frac{\Delta U_2 - \Delta_L U_U}{\Delta_H U_U}$ , then the efficient incumbent underinvests if  $\frac{p}{1-p} < \tilde{p}_U$ , whereas he chooses the social surplus maximizing policy in the first period if  $\tilde{p}_U < \frac{p}{1-p}$ .

- Similarly, when  $p < \frac{1}{2}$ , an efficient incumbent may find it optimal to over-invest in enforcement.
- Since with overinvestment illegal immigration can never arise, we focus on the underinvestment scenario.

## Illegal immigration, information and welfare

- Since a populist incumbent always chooses his most preferred policy and is re-elected, we focus on the more interesting case where the incumbent is of the efficient type
- We show that if  $p > \frac{1}{2}$  and  $\frac{p}{1-p} < \tilde{p}_u$ , then there exists a *pooling equilibrium* with under-investment whereby:
  - If the state of the world turns out to be low, the efficient incumbent admits  $M(\bar{I}_m)$  migrants and is re-elected
  - If the state of the world is high,  $M^H(I)$  migrants are admitted and the incumbent is voted out of office.

# Equilibrium

**Proposition 1** Suppose that the incumbent is an efficient type.

- 1 If  $p > \frac{1}{2}$  and  $\frac{p}{1-p} < \tilde{p}_u$ , then there exist a pooling equilibrium with under-investment such that, if the state of the world turns out to be low, the efficient incumbent admits  $M(\bar{I}_m)$  migrants and is re-elected, whereas if the state of the world is high,  $M^H(I)$  migrants are admitted and the incumbent is voted out of office.
- 2 If  $p > \frac{1}{2}$  and  $\tilde{p}_u < \frac{p}{1-p}$  or  $p \leq 1/2$  and  $\tilde{p}_o < \frac{p}{1-p} < \tilde{p}_u$ , there exist a separating equilibrium such that  $M(\underline{I})$  migrants are admitted when the realized state of the world is low,  $M(\bar{I})$  are admitted if it is high, and the incumbent is never re-elected.

# Equilibrium

- The first part of the proposition establishes two inefficiency results:
  - If the high state of the world is more likely ( $p > \frac{1}{2}$ ), under given parametric restrictions, an efficient incumbent chooses a level of illegal immigration which is inefficiently high because, to have more migrants without incurring in the electoral punishment, he strategically under-invests in enforcement letting more migrants enter in a concealed way (*moral hazard*)
  - If  $p > 1/2$ , the median voter may not be able to dismiss an efficient incumbent (*adverse selection* from the median voter point of view)

## Illegal immigration and lobby capture

- We have so far analyzed inefficiency induced by electoral incentives when the policy maker is a social welfare maximizer
- What if the incumbent is captured by a lobby preferring a number of migrants higher than the social optimum (i.e. for the incumbent  $\lambda > 1$ )?

**Proposition 2** Suppose that lemma 2 holds. Then an equilibrium with under-investment is more likely to arise, the larger the difference between the most preferred level of immigration of the incumbent and the most preferred level of the median voter.

## Illegal immigration and lobby capture

- Intuition: when the preferences of the politician are further away from the median voter, the potential gain from under-investment becomes larger. Given that in an equilibrium with underinvestment, the gain from under-investment dominates the loss from policy distortion, then underinvestment becomes more likely when the preferences of the incumbent become more "extreme"
- Hence, The existence of lobbying in favor of migration further increases the chances of illegal immigration
- The size of the electoral gain from under-investment is also affected by the probability distribution of the two types of incumbent. When an efficient incumbent knows that, by losing elections, he will be replaced by an opponent who is very likely to be a populist (high  $\mu$ ), he will have more incentives to "pool" by under-investing, and viceversa.

## Illegal immigration and wealth distribution

- More generally, illegal immigration is more likely to take place the lower is the level of immigration preferred by the median voter compared to the average
- Inefficiently high illegal immigration is more likely to take place when the distribution of wealth is more unequal.

**Proposition 4** Suppose that lemma 2 holds. Then an equilibrium with under-investment is more likely to arise, the lower is the share of capital owned by the median voter  $\lambda_m$  compared to the average.

- The more restrictive the migration policy requested by the median voter compared to the social optimum, the more likely is an inefficient equilibrium with under-investment and illegal immigration

## Conclusions

- In this paper we have proposed a theoretical framework providing an explanation for why inefficiently high illegal immigration can arise
- Illegal immigration can take place because governments have limited instruments to control it (uncertainty on the state of the world)
- However, empirical evidence suggest that the very large number of illegal immigrants might not be just the result a of “second best” argument
- We have shown that the presence of electoral concerns may rise illegal immigration above the socially optimal value
- Inefficiently high illegal immigration is more likely when lobby pressures push in favor of increasing migration above the social optimum
- Inefficiently high illegal immigration is more likely the further away the median voter most preferred policy is from the social optimum
- Future research: extension to consider differen types of enforcement technologies (interior v.s. border enforcement), effects of technology shocks etc.