Ethnic Identity and Economic Behavior: How Does Minority Status Affect Investment in Bosnia and Herzegovina?

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Motivation

- Ethnic diversity hinders development
  (Easterly & Levine 1997; Alesina & La Ferrara 2003)
  - Why?
  - Previous studies were focused on public goods provision

- Saving and investment play principal role in economic growth
  (Acemoglu 2008; Banerjee and Duflo 2011)
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Determinants of Investment

- credit constraints
- market competition
- property rights security
- time horizon
- risk preferences
- Identity?
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Ethnic Identity

- **Constructivists vs. Primordialists**
  - Game theory models empirics based on ELF index - groups as equal
  - Majority / Minority Differentiation
  - Bringing state into ethnic politics
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Hypotheses:

- minorities prefer consumption over investment
- minorities have less trust to the out-group
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Identification problem

- minorities are unlike majorities
- impact of culture, institutions, path-dependence
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Methodology

1. Quasi-natural Experiment
   - Household survey (350 respondents)
   - Business survey (65 business owners)

2. Lab-in-the-field Experiment
   - Modified Investment Game (240 participants)
Bosnia and Herzegovina
- Slobodan Milosevic: 'Give me anything: rocks, swamps, hills... anything, as long as it gets us to 49-51%'

IEBL cuts through 42 municipalities and 520km of private property
Household Survey

- 'If you were given $500, $2000, $5000 and $10,000 - Would you consume it, save or invest in some business?

Figure 1. Preferences for Investment Among Majorities and Minorities

Minorities are dramatically more likely to prefer emigration.
Household Survey

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![Figure 1. Preferences for Investment Among Majorities and Minorities](image)

- Minorities are dramatically more likely to prefer emigration
Minorities tend to negatively perceive business environment in their entities

Belonging to minority has strong effect on the distrust to authorities on both levels of government

Negative effect on inter-ethnic distrust is either subtle or absent at all
Business Survey

- Minority entrepreneurs do not expand their business: did not take credit in the past and do not plan to it in the future)

Figure 3. Investment in business among minorities and majorities
Business Survey

Figure 4. Institutional and interethnic trust among businessmen

- Trust Federal Authorities
- Trust Authorities of the Entity
- Trust Serbs

Ethnic Identity
- majorities
- minorities
Experimental Design

- 240 subjects (Serbs and Bosniaks)
- located in 2 matched villages on difference sides of IEBL
- played online using a Z-Tree interface
- participants know only ethnicity of their counterparts

<table>
<thead>
<tr>
<th></th>
<th>No enforcer</th>
<th>Neutral Enforcer</th>
<th>Biased Enforcer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Serbs vs. Bosniaks</td>
<td></td>
<td>4 rounds</td>
<td></td>
</tr>
<tr>
<td>Bosniaks vs. Bosniaks</td>
<td></td>
<td>4 rounds</td>
<td></td>
</tr>
</tbody>
</table>
The effect of minority position on sending per round

<table>
<thead>
<tr>
<th>VARIABLES</th>
<th>%Send (1 Round)</th>
<th>%Send (2 Round)</th>
<th>%Send (3 Round)</th>
<th>%Send (4 Round)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biased Enforcer</td>
<td>-7.503**</td>
<td>-6.827**</td>
<td>-10.25**</td>
<td>-7.931**</td>
</tr>
<tr>
<td></td>
<td>(3.457)</td>
<td>(3.191)</td>
<td>(3.263)</td>
<td>(2.700)</td>
</tr>
<tr>
<td>Return (1 Round)</td>
<td>-0.00423</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.191)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Return (2 Round)</td>
<td></td>
<td>0.00738</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0.163)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Return (3 Round)</td>
<td></td>
<td></td>
<td>0.483***</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(0.0998)</td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>-0.0161</td>
<td>0.0272</td>
<td>0.0267</td>
<td>0.00195</td>
</tr>
<tr>
<td></td>
<td>(0.0323)</td>
<td>(0.0334)</td>
<td>(0.0386)</td>
<td>(0.0360)</td>
</tr>
<tr>
<td>Education</td>
<td>-0.136***</td>
<td>-0.174***</td>
<td>-0.296***</td>
<td>-0.211***</td>
</tr>
<tr>
<td></td>
<td>(0.0330)</td>
<td>(0.0400)</td>
<td>(0.0459)</td>
<td>(0.0363)</td>
</tr>
<tr>
<td>Income</td>
<td>-0.0101</td>
<td>0.00247</td>
<td>-0.0135</td>
<td>0.00338</td>
</tr>
<tr>
<td></td>
<td>(0.00816)</td>
<td>(0.00522)</td>
<td>(0.0137)</td>
<td>(0.0108)</td>
</tr>
<tr>
<td>Constant</td>
<td>65.55***</td>
<td>61.83***</td>
<td>69.50***</td>
<td>38.80***</td>
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<tr>
<td></td>
<td>(4.438)</td>
<td>(12.59)</td>
<td>(9.766)</td>
<td>(7.206)</td>
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<tr>
<td>Observations</td>
<td>40</td>
<td>40</td>
<td>40</td>
<td>40</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.130</td>
<td>0.176</td>
<td>0.309</td>
<td>0.525</td>
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</tbody>
</table>

Robust standard errors in parentheses. (Std. Err. adjusted for 10 clusters in groups)

*** p<0.01, ** p<0.05, * p<0.1
Figure 4. Minority playing with Majority

Figure 5. Minority playing with Minority
Results

- Inducement of minority status produces approximately 6 percentage points decrease in money sent.
- Under any other condition, biased enforcer treatment is insignificant, while neutral enforcer consistently produces increase in trust in trustworthiness.
- No co-ethnicity bias: playing with co-ethnics is associated with lower percentage of money sent.
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Minorities, who own business, are less likely to expand it;

Minorities invest less not because of the negative out-group preferences, but due to low trust to the governmental institutions represented by the out-group;
Interpretation

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- The crucial role of expectations of discrimination
- Segregation and ethnic business
- Horizontal inequality -> conflict potential
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