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Remittance: the portion of international migrant workers earnings sent back to countries of origin.

Remittances became the 2nd largest external source, behind FDI, of external funding for countries in the world in 1997 (World Bank 2005).

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The importance of remittances

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<table>
<thead>
<tr>
<th>Year</th>
<th>FDI (Billion $)</th>
<th>ODA (Billion $)</th>
<th>Remittances (Billion $)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1972</td>
<td>0</td>
<td>0</td>
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</tr>
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<td>2002</td>
<td>0</td>
<td>0</td>
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</tr>
</tbody>
</table>

Graphic comparison of distant money
Graphic comparison of distant money

Year
Distant Money (Billion $)
0 20 40 60 80
ODA

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Motivations

- Few scholastic effort has been devoted into studying the political impact of remittances (rich on economic effect though)
- Past methods using pooled cross-sectional and time-series regression analysis of political liberalization is flawed.
  - Hard to validate their results country by country and year by year.
  - Cannot explain the micro-difference within each country.
Goals

- Systemic analysis of the effect of remittances on political liberalization
- Improve the ability of making inference by using Bayesian multilevel modeling (BML)

Comparison of logit models

- Statistical results: Remittance and regime change
- Log of lagged remittances:
  - Log of lagged GDP
  - Log of lagged FDI
  - Lagged % of democratic regimes in the world in that year
  - Lagged sum of past transitions to authoritarianism in that country
- Log of lagged GDP per capita
- Log of lagged ODA
- Log of lagged remittances

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Comparison of logit models

Classical logit models

Statistical results
Remittance and regime change

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Statistical results Remittance and regime change

BML logit model with varying intercepts

\[ \ln \left( \frac{\text{Remittances}}{\text{t-1}} \right) \]

\[ \Pr (\text{Regime} = 1) \]

\[ \text{Intercepts of BML 1} \]

BML logit model with varying intercepts and varying slopes

\[ \text{Year Effects} \]

\[ \text{Pr (Regime - 1)} \]

\[ \ln (\text{Remittances}_{t-1}) \]

\[ \text{Year} \]

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Statistical results Remittance and regime change

BML logit model with varying intercepts and varying slopes

Guinea-Bissau
Malawi
Burkina Faso

Intercept of BML 2

Slopes of BML 2

BML 1

BML 2

Average Residuals

Probability of Democratic Transition

Year

Classic logit

Average Residuals

Probability of Democratic Transition
### Statistical results

**Remittances and regime democratic performance**

**BML linear models**

Lagged % of democratic regimes in the world in that year
Lagged sum of past transitions to authoritarianism in that country
Log of lagged GDP per capita
Log of lagged FDI
Log of lagged ODA
Log of lagged remittances

**Classic logit**

Probability of Democratic Transition

---

**Binned residual plots for logit models**

- **Classic logit**
- **BML 1**
- **BML 2**

---

**Yu-Sung Su (Applied Bayesian Multilevel Modeling: Remittances and Political Liberalization)**

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Conclusions

1. The statistical results confirm my hypothesis that an increase in the remittance inflows will increase the chance for an autocracy to democratize.
2. The paper also shows that an increase in the remittance inflows will enhance the regime performance.
3. To examine the effect country by country and over time, the result varies.
4. The paper does not claim that if we pour in a tremendous amount of remittances in a autocratic country in a certain year, we can cause that autocracy transits to democracy.
5. Bayesian multilevel modeling does perform better, though; it is computationally intensive.
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