Introduction

The Indonesia's 2001 fiscal decentralization attempted to promote equalization by addressing vertical and horizontal imbalances and to provide district governments with incentives for development. One important research issue is then to investigate whether the Indonesian decentralization delivered on its equity promise.

Research questions

1. Has there been a reduction in income disparities across districts?
2. Is decentralization an inequality-reducing force?
3. How may the districts' level of development have an influence on the effect of decentralization on inequality?
4. What are the impacts of the districts' characteristics on inequality?

Fiscal decentralization framework

Revenue: EF is dominant; Spending: Non-earmarked expenditures

Sharing scheme

- Tax-based revenue sharing:
  - Personal income tax (100% for the Central)
  - Oil, gas, other resources

By the 2004 (revised) law:
- Non-producing districts and provincial governments also got their shares.
- The categories of non-oil and gas resources are more detailed.

Method

- Construct and exploit a panel data set of the 300 Indonesian autonomous districts during the period 2001-2007 (data sources: BPS Soesman, DiPKD's government finance statistics).
- Estimate fixed-effect panel model (time fixed-effect included). Fit 12 models divided into four group of estimates (as a robustness check): baseline, baseline controlling for heteroscedasticity, endogeneity-controlled, and endogeneity & heteroscedasticity-controlled estimates.
- Run a multiplicative interaction model (adopting Tsolias et al. 2012):
  \[ I_{i,t} = \alpha + \beta_1 FD_{i,t} + \beta_2 \text{manpc}_{i,t} + \beta_3 \text{manpc}_{i,t}^2 + \beta_4 \text{FD}_{i,t} \times \text{manpc}_{i,t} + \beta_5 \text{expdp}_{i,t} + \beta_6 \text{road}_{i,t} + \beta_7 \text{phone}_{i,t} + \beta_8 \text{sech}_{i,t} + \beta_9 \text{shman}_{i,t} + \beta_{10} \text{ginise}_{i,t} + \beta_{11} \text{shar}_{i,t} + \beta_{12} \text{revx}_{i,t} + \gamma_1 + \theta_1 + \epsilon_{i,t} \]
  - Define the dependent variable (adopting Bonet 2008):
    \[ I_{i,t} = \frac{\text{PCGDP}\_i}{\text{PCGDP}\_N, t} - 1 = \frac{\sum_{i=1}^N \text{GDP}_{i,t}}{\sum_{i=1}^N \text{GDP}_{p, t}} \]
  - Define the fiscal decentralization (FD) indicators: reve, revgaf, shrev, revx, revres (as share to the district’s total revenue).

Results

Reduction in income disparities

<table>
<thead>
<tr>
<th>Overall and decomposed</th>
<th>2001</th>
<th>2007</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall Indonesia</td>
<td>0.486</td>
<td>0.385</td>
<td>-0.101</td>
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</tbody>
</table>

Decomposition

"Within" province inequality: 0.208 vs. 0.163 (-0.045)
"Between" province inequality: 0.278 vs. 0.222 (-0.056)

Development level is a significant moderator and determinant of inequality.

Inverted U-shape (inequality-development level) or a Kuznets is indicated.

The cut-off estimates are 25 times larger than the current average development level.

Conclusions

- Different estimation strategies tell a consistent story: 1) Decentralization is a welfare-enhancing policy; 2) The importance of development level. Thus, decentralization needs to be linked with a broader development strategy.
- As part of the development strategy, cooperation between district governments needed to generate scale economies and to address interjurisdictional issues.
- A greater spending autonomy entails performance standards and incentives for wise spending.
- Future research will formally addresses yardstick competition and imitation effects, hence spatial spillovers.