

# Emigration, Remittances and the Political Economy of Development: Insights Using New Methods and Data from Kerala

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## Existing work

- ▶ Studies emigration and remittances singly
  - ▶ Despite the fact that emigration causes remittances
  - ▶ This approach is theoretically, empirically problematic
- ▶ Focuses on outcomes
  - ▶ Although development is a (political) process
- ▶ Focuses on permanent migration
  - ▶ Although a lot of migration is temporary

# Contributions

- ▶ Theory
  - ▶ Examine the effects of emigration and remittances
  - ▶ Examine their effects on the development process (politics, public goods provision and then outcomes)
- ▶ Data
  - ▶ From Kerala, where emigration is temporary
- ▶ Methodology
  - ▶ Use a structural (simultaneous) equations model

# Theoretical expectations

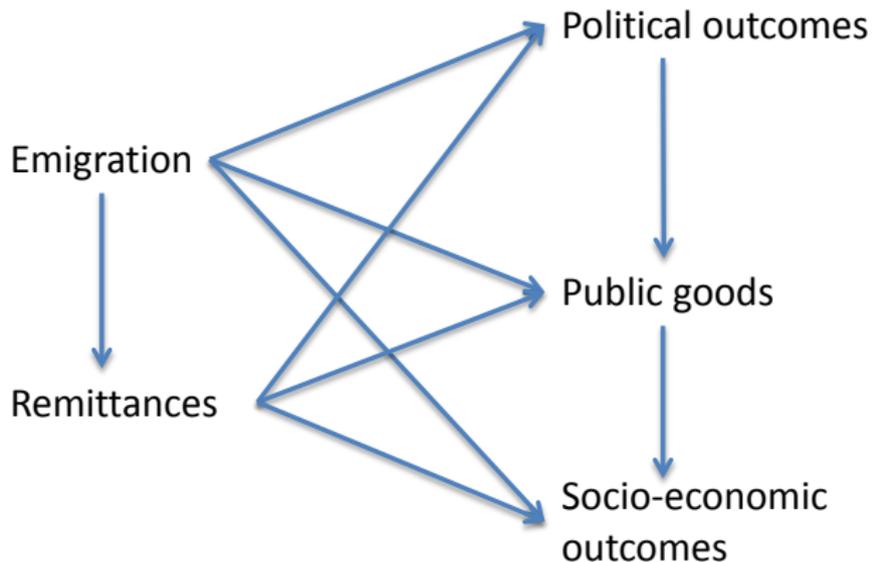


Figure: Potential causal pathways by which emigration and remittances affect development

## Context: Kerala



- ▶ Emigrants
  - ▶ 1.4m or 3.6%
  - ▶ 95% go to the Persian Gulf
  - ▶ Richer, more educated
  - ▶ Muslims and Christians
  - ▶ Likely to return
- ▶ Remittances
  - ▶ \$1,000/year (v. GDPpc of \$342)
  - ▶ 22% of state GDP in 1999

- ▶ Emigration and remittances
  - ▶ South Asia Migration Survey, 2003
    - ▶ Random selection of households, after stratifying by district
    - ▶ Collapsed to locality
- ▶ Census of India, 2001
  - ▶ Public goods, literacy
- ▶ Local election data, 2000
  - ▶ Turnout and vote choice

## Empirical strategy: 2SLS?

- ▶ Instrumenting for two endogenous variables is problematic (Angrist and Pischke 2009)
- ▶ Since remittances are a post-treatment channel through which emigration might work, controlling for it leads to bias
- ▶ But not controlling for it also leads to bias (omitted variable)

# Empirical strategy: Structural Equations Model

$$\textit{turnout}_i = \alpha_1 + \beta_1 \textit{emigrants}_i + \gamma_1 \textit{remittances}_i + \lambda_1 X_i + \epsilon_{1i} \quad (1)$$

$$\textit{communistvote}_i = \alpha_2 + \beta_2 \textit{emigrants}_i + \gamma_2 \textit{remittances}_i + \lambda_2 X_i + \epsilon_{2i} \quad (2)$$

$$\begin{aligned} \textit{primaryschools}_i = \alpha_3 + \beta_3 \textit{emigrants}_i + \gamma_3 \textit{remittances}_i \\ + \delta_1 \textit{turnout}_i + \zeta_1 \textit{communist}_i + \lambda_3 X_i + \epsilon_{3i} \end{aligned} \quad (3)$$

$$\textit{literacy}_i = \alpha_4 + \beta_4 \textit{emigrants}_i + \gamma_4 \textit{remittances}_i + \eta_1 \textit{primaryschools}_i + \lambda_4 X_i + \epsilon_{4i} \quad (4)$$

$$\textit{emigrants}_i = \alpha_5 + \kappa \textit{firstdep}_i + \lambda_5 X_i + \epsilon_{5i} \quad (5)$$

$$\textit{remittances}_i = \alpha_6 + \beta_5 \textit{emigrants}_i + \mu \textit{propemigulf}_i + \lambda_6 X_i + \epsilon_{6i} \quad (6)$$

# Main SEM results, 1/2

	Turnout, % 1	UDF vote, % 2	2ndary sch. /pop. 3	Literacy, % 4	Log % emigrants 5	Log remit. per capita 6
Log % emigrants	-1.807 [1.285]	-0.658 [0.933]	-0.311 [2.220]	0.51 [0.392]		1.045*** [0.127]
Log remittances per capita	-0.186 [0.542]	-0.448 [0.725]	0.644 [0.635]	-0.282 [0.216]		
Turnout, %			0.0459 [0.0658]			
UDF vote, %			0.0151 [0.0821]			
Secondary schools/population				0.0148 [0.0287]		
Log year of first departure					-33.90*** [6.489]	
Proportion of emigrants in Gulf						0.535** [0.259]
Controls?	Y	Y	Y	Y	Y	Y

Notes: All variables were demeaned to include district fixed effects; constant constrained to be zero. Controls include log population, % Ezhava, Muslim and Christian. Robust standard errors, clustered by district, in brackets.  
\* significant at 10%; \*\* 5%; \*\*\* 1%.

## Main SEM results, 2/2

	Direct effect	Indirect effect	Total effect
Turnout, %			
Log % emigrants	-1.807 [1.285]	-0.195*** [0.024]	-2.002 [1.284]
Log remittances per capita	-0.186 [0.542]		-0.186 [0.542]
UDF vote, %			
Log % emigrants	-0.658 [0.933]	-0.469*** [0.057]	-1.127 [0.926]
Log remittances per capita	-0.448 [0.725]		-0.448 [0.725]
Secondary schools/population			
Log % emigrants	-0.311 [2.22]	0.564*** [0.104]	0.253 [2.268]
Log remittances per capita	0.644 [0.635]	-0.015 [0.031]	0.629 [0.627]
Literacy, %			
Log % emigrants	0.51 [0.392]	-0.291*** [0.031]	0.218 [0.389]
Log remittances per capita	-0.282 [0.216]	0.009 [0.009]	-0.273 [0.213]

Notes: Robust standard errors, clustered by district, in brackets. \* significant at 10%; \*\* 5%; \*\*\* 1%.

## Robustness checks

- ▶ Exclusion of post-treatment demographic controls
- ▶ Using dataset after case-wise deletion (new  $n = 110$ )
- ▶ Dropping district fixed effects, and replacing the DV with changes between 1981 and 2001
- ▶ Allowing for literacy to affect politics
- ▶ Controlling for return emigrants

## Conclusions, 1/2

- ▶ Emigration indirectly, via remittances, worsens turnout, the vote share of established parties, but increases secondary schools
- ▶ These indirect effects are swamped by imprecisely estimated direct effects
- ▶ The total effects of emigration are statistically indistinguishable from zero
- ▶ An exception to this pattern is villages with large Muslim populations, which witness increases in secondary schools
  - ▶ This is evidence of demand-led “brain gain”
- ▶ Naively using OLS or 2SLS masks these effects

## Conclusions, 2/2

### Policy implication?

- ▶ We know by revealed preference that emigration and remittances helps individuals and families
- ▶ Also have some evidence of “brain gain”
- ▶ Negative indirect effects are swamped by imprecisely estimated direct effects
- ▶ Suggests that overall, migration is a good thing for development

Emigration and remittances should be studied together, possibly using SEM

Thank you!