

Influences on the Strengths of Property Rights

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Measuring the strength of property rights: conceptual issues

What does greater security of property rights mean?

- Security of ownership rights?
- Security of tenure for occupiers?
- Security of formal/ statutory/ registered rights?
- Absence of regional or urban/rural differences in strength of rights?
- Absence of gender differences in rights?
- Minority rights?

Measures of Security of Property Rights

- Heritage Foundation (HF)
- World Economic Forum (WEF)
- Bertelsmann Transformation Index (BTI)
- USAID:
 - Insecure Tenure and Property Rights
 - Inequitable Access to Land and Natural Resources
 - Poorly Performing Land Markets

Choices between security of property rights measures

- Expert scoring versus sampling respondents
Heritage, BTI, USAID v World Economic Forum
- Internal consistency
Question marks about Heritage Foundation judgements
- Pro-poor
USAID
- Coverage of countries
Rich countries as distorting statistical outliers
BTI covers emerging, transitional & developing countries

Selection of property rights measures

- USAID
 - Insecure Tenure and Property Rights
 - Inequitable Access to Land and Natural Resources
 - Poorly Performing Land Markets
 - 7 = serious problem to 1 = no need for intervention
 - Pro-poor emphasis

- Bertelsmann Transformation Index
 - To what extent do governments ensure well-defined rights of private property and regulate acquisition of property?
 - 9/10 = well defined and protected rights, 1/2 = rights not defined by law and vulnerable to whims of the state

Do USAID measures correlate with each other?

| | Inequitable Access to Land and Natural Resources | Poorly Performing Land Markets |
|--------------------------------------------------|--------------------------------------------------|--------------------------------|
| Insecure Tenure and Property Rights | 0.390 p = 0.000 n = 80 | 0.139 p = 0.152 n = 80 |
| Inequitable Access to Land and Natural Resources | | 0.197 p = 0.040 n = 80 |

The measures seem to examine different aspects of property rights

Do USAID measures correlate with WEF, HF & BTI?

| USAID | World Economic Forum | Heritage Foundation | Bertelsmann Index |
|------------------------------------------------|-------------------------------|-------------------------------|-------------------------------|
| Insecure tenure & property rights | -0.002 p = 0.985 n = 64 | -0.147 p = 0.144 n = 71 | -0.138 p = 0.148 n = 73 |
| Inequitable access to land & natural resources | -0.006 p = 0.952 n = 64 | -0.060 p = 0.546 n = 71 | -0.126 p = 0.180 n = 73 |
| Poor land market performance | -0.054 p = 0.585 n = 64 | -0.047 p = 0.648 n = 71 | -0.059 p = 0.547 n = 73 |

USAID appears to measure something different from the others – a pro-poor approach?

Are HF, WEF and WEF in agreement?

| | Heritage Foundation | World Economic Forum |
|----------------------------------|--------------------------------------|--------------------------------------|
| Bertelsmann Transformation Index | 0.687 p = 0.000 n = 123 | 0.399 p = 0.000 n = 103 |
| World Economic Forum | 0.646 p = 0.000 n = 137 | |

Dispersion of WEF responses different from HF and BTI. Consistent with respondents not able to calibrate their answers precisely compared with expert scoring

Data

Types of data:

- Democratic government
- Quality of governance
- Rule of law
- Corruption
- Corporate governance
- Economic development
- Financial system development
- Quality of infrastructure
- Quality of education
- Property registration
- Quality of environment
- Equal opportunities, gender & minority rights

Sources of data:

- Bertelsmann Transformation Index
- World Economic Forum
- World Bank *Doing Business*
- World Bank Governance Indicators
- OECD Social and Institutional Gender Index
- Yale Centre of Environmental Law

Influences on BTI Strength of Property Rights

- Large number of statistically significant correlations but independent variables highly correlated with each other
- Use of factor analysis to handle correlations between independent variables
- 4 factors extracted using Principal Components Analysis
- 103 variables with significant communality
- They do not include World Bank *Doing Business* property registration date
 - how relevant is scenario used to measurement of strength of property rights?

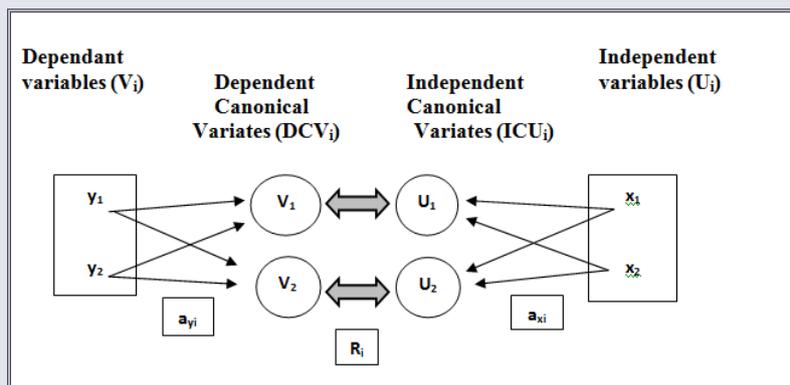
| | |
|------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| I R ² =25% | Highest for property rights <i>Loadings:</i> democracy, governance, rule of law, absence of corruption, economic liberalisation, policies for competitiveness, environmental policy, equal opportunities |
| II R ² =19% | <i>Loadings:</i> effectiveness of government, dispute resolution procedures, economic development, financial development, quality of education |
| III R ² =12.5% | Higher for property rights than factor II <i>Loadings:</i> effectiveness & efficiency of government, absence of structural constraints, economic development, quality of infrastructure and environment |
| IV R ² =12% | Not significant for property rights <i>Loadings:</i> political stability, low costs of terrorism & crime, effectiveness & efficiency of government, transparency, corporate governance, corruption |

Influences on USAID Strength of Property Rights

- Fewer correlations than for BTI measure and at a lower level of statistical significance
- *Insecure Tenure and Property Rights* — stronger rights associated with liberalisation of foreign trade, willingness to delegate authority and effectiveness of government in implementing reform policy
- *Inequitable Access to Land and Natural Resources* – stronger rights associated with rule of law, political stability, absence of violence and crime but weaker with financial performance
- *Poor Land Market Performance* — stronger rights associated with efficient legal systems, low crime and violence, public trust of politicians and low cost registration but weaker with tertiary education, mobile phones access, and access to finance

USAID canonical correlations

- 22 of the most significant variables were identified for inclusion in a final model



Further material on factor analysis and canonical correlation analysis of property rights:

Richard & Christine Grover (2012) *Property Rights and Land Governance*, paper prepared for presentation at the "ANNUAL WORLD BANK CONFERENCE ON LAND AND POVERTY", The World Bank – Washington DC, April 23-26, 2012