The Relevance of Judicial Procedure for Economic Growth

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The Relevance of Judicial Procedure for Economic Growth

I. Introduction

• A number of recent papers show that structural characteristics of judiciary have important economic consequences.
  – E.g. Feld and Voigt (2003, 2006): judicial independence conducive to economic growth

• Yet: Growth Effects of Judicial Procedure largely neglected

• First attempt to close that gap.
I. Introduction (2)

• Structure of the Talk:
  – Theory: Two competing views on the effects of judicial procedure
  – Data Description
  – Estimation Approach, Interpretation
  – Conclusions and Outlook
II. Theory: Two Competing Views on the Effects of Judicial Procedure

- Judicial Procedure ≈ those formal steps that actors involved in the judicial system need to follow in order to produce binding decisions (≈ due process)

- The First View:
  - Judicial procedure increases likelihood that judges will apply relevant norms in their decisions
  - Judicial procedure reduces arbitrariness of judicial decision-making
  - Judicial procedure increases predictability
II. Two Competing Views (2)

- 2 examples:
  - Right to legal counsel: reduces asymmetry in judicial expertise between judge and defendant; increases likelihood of proper application of relevant norms.
  - Right to appeal: creates probability that judicial decision will be reviewed by higher ranked colleagues; creates incentives to apply norms properly.

- Potential transmission channels:
  - number of contracts $\uparrow$; willingness to specialize $\uparrow$
  - (Foreign direct) investment $\uparrow$
  - Level of interest rate lower $\Rightarrow$ lower tax burden

• The Second View:
  - Djankov et al. (2003; „Lex Mundi“ study)
  - Neighborhood model as benchmark
  - Deviations interpreted as undue regulatory intervention serving the interests of the rulers
II. Two Competiting Views (3)

- **Index of Procedural Formalism**

  1. Professionals vs. Laymen;
  2. Written vs. Oral elements;
  3. Legal justification;
  4. Statutory regulation of evidence;
  5. Control of superior review;
  6. Engagement formalities;
  7. Independent procedural actions.

  - Indicators created with answers from law firms based on two paradigmatic cases (eviction of tenant, cashing in of bounced check)
  - Higher values indicate higher degrees of formalism
III. Data Description

- Index of „Fair Trial“ created by Hathaway (2002)
- Made up of 10 components:
  1. independent and impartial judiciary,
  2. the right to counsel,
  3. the right to present a defense,
  4. the presumption of innocence,
  5. the right to appeal,
  6. the right to an interpreter,
  7. the absence of *ex post facto* laws,
  8. the right to a public trial,
  9. the right that the charges are presented with prior notice and
  10. the timeliness of court action.

- Coding:
  - 0 – always enforced; 0,5 – sometimes enforced; 1 – never enforced.
- Refers to all kinds of trials (including civil as well as administrative cases) although some components only applicable to criminal law
Table A2: Correlation coefficients of judicial variables

<table>
<thead>
<tr>
<th>Collection of a check:</th>
<th>Judiciary</th>
<th>Right to council</th>
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</tr>
<tr>
<td>Written vs. oral elements</td>
<td>0.29**</td>
<td>0.22(*)</td>
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</tr>
<tr>
<td>Legal justification</td>
<td>0.10</td>
<td>0.09</td>
<td>-0.11</td>
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<td>0.25*</td>
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<tr>
<td>Statutory regulation of evidence</td>
<td>0.40**</td>
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<td>0.19</td>
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<tr>
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<td>0.13</td>
<td>-0.04</td>
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<tr>
<td>Engagement formalities</td>
<td>0.37**</td>
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<td>0.45**</td>
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<td></td>
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Notes: ***, *, and (*) indicate significance at the 1%, 5%, and 10% level, respectively.
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Legal origin:

| English          | -0.19 | 0.16 | 0.05 | 0.27* | 0.08 | -0.07 | -0.04 | 0.32** |
| French           | 0.37**| 0.10 | 0.04 | -0.12 | 0.07 | 0.43**| 0.09  | -0.04  |
| German           | -0.08 | -0.13| 0.11 | 0.08  | -0.06| 0.43**| 0.11  | -0.11  |
| Scandinavian     | -0.31*| -0.30*| -0.27*| -0.24(*)| -0.15| -0.36**| -0.16| -0.27**|
| Socialist        | 0.03  | -0.05| -0.01| -0.15 | -0.09| -0.10 | -0.10 | -0.17  |

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Higher degrees of formalism are correlated with less timely decisions.
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**Independent procedural actions**: 0.45** 0.38** 0.34** 0.32** 0.20 0.47** 0.23(*) 0.12

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Socialist 0.03 -0.05 -0.01 -0.15 -0.09 -0.10 -0.10 -0.17

Notes: ***, *, and (*) indicate significance at the 1%, 5%, and 10% level, respectively.

More independent proc. Actions imply less adherence to legal procedures.
Countries with Scandinavian Legal Origin follow procedural norms strictly.
IV. Estimation Approach and Interpretation

- The following model estimated on the basis of 67 countries for period 1985 – 2003
- \( Y = B\alpha + J\beta + C\gamma + D\delta + L\lambda + \varepsilon \)

where:
- \( Y \) = Vector of growth rates in 
- \( B \) = Matrix of basic explanatory variables (initial income, investment, population growth, schooling),
- \( C \) = Matrix of control variables (regional dummies, economic as well as institutional controls),
- \( J \) = Matrix of procedural justice indicators,
- \( D \) = Matrix of the degree of judicial formalism variables,
- \( L \) = Matrix of the legal origin variables,
- \( \varepsilon \) = Vector of errors.
IV. Estimation Approach and Interpretation (2)

- **General-to-specific approach (Hendry 1993)**
  - Low potential estimation biases;
  - Allows for consistent testing down procedures;
  - Fully considers interaction of explanatory variables

- **Due to limited degrees of freedom, 4 models were estimated:**
  1. \( Y = B\alpha + C\gamma + L\lambda + \epsilon \)
  2. \( Y = B\alpha + J\beta + C\gamma + \epsilon \)
  3. \( Y = B\alpha + J\beta + C\gamma + D(\text{tenant})\delta + \epsilon \)
  4. \( Y = B\alpha + J\beta + C\gamma + D(\text{check})\delta + \epsilon \)

- **Model reduction algorithm (Hendry and Krolzig 1999) used to generate parsimonious models.**
Table 2: Specific model for the per capita GDP growth rate in % (equation (2))

Included judicial variables: Legal origins

<table>
<thead>
<tr>
<th>Remaining variables</th>
<th>Coeff</th>
<th>SE</th>
<th>Partial-R²</th>
<th>Elasticities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial GDP in 1985 in US $</td>
<td>0.0016**</td>
<td>0.0003</td>
<td>0.33</td>
<td>-1.07</td>
</tr>
<tr>
<td>Investment to GDP ratio in %</td>
<td>0.930**</td>
<td>0.221</td>
<td>0.23</td>
<td>1.29</td>
</tr>
<tr>
<td>Population growth in %</td>
<td>-1.072**</td>
<td>0.211</td>
<td>0.26</td>
<td>-1.18</td>
</tr>
<tr>
<td>Average inflation rate</td>
<td>-0.239*</td>
<td>0.095</td>
<td>0.10</td>
<td>-0.05</td>
</tr>
<tr>
<td>Economic freedom index</td>
<td>5.470*</td>
<td>2.057</td>
<td>0.11</td>
<td>2.87</td>
</tr>
<tr>
<td>South America</td>
<td>-8.559**</td>
<td>2.794</td>
<td>0.14</td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>-6.226</td>
<td>10.98</td>
<td>0.01</td>
<td></td>
</tr>
</tbody>
</table>

(1) No of observations: 67
(2) SE equation: 9.14
(3) R²: 0.57
(4) Model selection criterion: Adj. R²: 0.526
(5) Model selection criterion: Hannan-Quinn: 7.452
(6) Joint test remaining variables: \(F(6, 69) = 13.2**\)
(7) Testing-down from general model: \(F(16, 64) = 0.82\)
(8) Heteroscedasticity test: \(F(11, 48) = 0.96\)

Upshot: Legal Origins uncorrelated with economic growth.
Upshot:
Presumption of Innocence with unexpected effect;
Only one formalism variable survives; it has "wrong" sign.
Table 5: Specific model for the per capita GDP growth rate in % (equation (5))

Included judicial variables: Procedural indicators and formalism indicators (check)  

<table>
<thead>
<tr>
<th>Remaining variables</th>
<th>Coeff</th>
<th>SE</th>
<th>Partial-R^2</th>
<th>Elasticities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial GDP in 1985 in US $</td>
<td>-0.0015+++</td>
<td>0.0003</td>
<td>0.36</td>
<td>-0.98</td>
</tr>
<tr>
<td>Investment to GDP ratio in %</td>
<td>0.689+++</td>
<td>0.190</td>
<td>0.19</td>
<td>0.95</td>
</tr>
<tr>
<td>Population growth in %</td>
<td>-1.072+++</td>
<td>0.120</td>
<td>0.33</td>
<td>-1.18</td>
</tr>
<tr>
<td>Presumption of innocence</td>
<td>35.63+++</td>
<td>6.831</td>
<td>0.32</td>
<td>0.44</td>
</tr>
<tr>
<td>Timeliness</td>
<td>-19.15+++</td>
<td>4.107</td>
<td>0.27</td>
<td>-0.55</td>
</tr>
<tr>
<td><strong>Independent procedural actions</strong></td>
<td>-12.07†</td>
<td>5.654</td>
<td>0.07</td>
<td>-0.25</td>
</tr>
<tr>
<td>Military control</td>
<td>-6.776†</td>
<td>3.043</td>
<td>0.08</td>
<td></td>
</tr>
<tr>
<td>Transition countries</td>
<td>-13.17†</td>
<td>6.165</td>
<td>0.07</td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>36.19+++</td>
<td>5.484</td>
<td>0.43</td>
<td></td>
</tr>
</tbody>
</table>

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(1) No of observations                 | 67    |
(2) SE equation                       | 7.64  |
(3) R^2                                | 0.71  |
(4) Model selection criterion: Adj. R^2| 0.668 |
(5) Model selection criterion: Hannan-Quinn | 7.146 |
(6) Joint test remaining variables     | F(8,58) = 17.6+++ |

Upshot:
Presumption of Innocence with unexpected effect;  
Formalism variable with low absolute and relative effect.
V. Conclusion and Outlook

• Formalism not always detrimental to growth.
  – Written procedures conducive to growth;
  – Right to council conducive to growth;
  – Timeliness conducive to growth;
  – Presumption of innocence detrimental to growth.

• Legal Origins without effect on growth.

• More fine grained data desirable; precondition for more detailed analysis.
• Thank you for your attention!