THE TANGLED WEB OF FOREIGN DIRECT INVESTMENT AND CORRUPTION: PROVING THE CONTRA-INUTITIVE

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FDI AND CORRUPTION: NO STATIC RELATIONSHIP

• The mainstream economic thinking suggests improving transparency leads to increased FDI inflow.
• We prove the contra-intuitively weak relation between FDI and corruption.
• Increases in FDI stock do not seem to improve transparency of countries in the world and vice versa.
• This presentation builds on our seminary work (Evan, Bolotov, 2014),
  https://doi.org/10.18267/j.pep.494
FDI AND CORRUPTION: NO STATIC RELATIONSHIP

• We have set up three hypotheses:

  **H1:** Corruption perception indicator is a stationary variable,

  **H2:** The co-integration relationship between corruption and FDI stock is statistically weak,

  **H3:** changes in this stock do not Granger cause changes in corruption.

• We have proven these hypotheses on the sample of 94 countries for the years 1998–2007 (unbalanced data).
FDI AND CORRUPTION: IS THERE A DYNAMIC RELATIONSHIP?

• We know the FDI is not improving transparency on the whole (FDI stock), but may be there is a situation limited in time, where FDIs help to improve corruption levels.

• To answer this question we did both theoretical and empirical study.

• The theory involves Multinational Corporations (MNCs) as FDIs are their tool.
THEORY OF MNCS (1)

• MNCs have additional costs from their operations abroad (different laws, cultures, languages).

• Hymer (1960) stated that in order to offset these expenses, MNCs must have some kind of special advantages.

• together with Charles P. Kindleberger (1969) they have established MNCs are *per-se* incompatible with a liberal market, as, otherwise, domestic companies would have been in a more favorable position, compared to MNCs in terms of costs.
THEORY OF MNCS (2)

• Before the Public Choice Theory constituted the concept of governmental failure, they claimed if there is still plenty of thriving MNCs, some kind of a market failure must exist.
• Mainstream economists, in general, accepted this claim: e.g. Vernon and Wells (1972) and Caves (1982) used product life cycle theory as the explanation.
THEORY OF MNCS (3)

• However, profound incorporation of the idea into mainstream economics can be attributed to Dunning (1998) and his eclectic model of international production.

• We follow Dunning's findings, particularly his OLI paradigm, i.e. ownership (O), location (L) and internationalization (I) advantages.

• These are only to be enjoyed by MNCs after negotiating with governments of not only the host but also the home country.
THEORY OF MNCS (4)

• Multinational corporations depend on arbitrary political decisions of home as well as host governments to offset their extra costs from doing business in multiple socio-economic environments of various countries.

• Realizing international investment is thus a non-liberal environment is a key to understand the relationship between FDI and Corruption.
HYPOTHESES (1)

• We base our hypotheses on a Vernon (1971) obsolescing bargain model of interaction between MNC and host government.

• Initially bargain favours the MNC but over time as the MNC's fixed assets in the country increase, the bargaining power shifts to the government.

• This allows us to test the dynamic pattern of such relationship via three hypotheses:
HYPOTHESES (2)

• **H1:** MNCs want lower corruption in a host country and are agents of change, i.e. they have the power at the beginning of the negotiation with the government before the FDI is placed and the will to achieve it. During this initial phase (several years) corruption in therefore diminishing in the host country as MNCs change the regulatory environment in their respective fields, but it may increase later to previous levels.
HYPOTHESES (3)

- **H2:** The corruption levels are not decreasing during the initial phase of negotiations (several years) with host governments and later. This might be due to the fact that MNCs are not agents of change and use their power in negotiation not to decrease corruption but to gain other financial or non-financial benefits in the form of increased investment incentives.
HYPOTHESES (3)

• **H2A**: The corruption levels are counter-intuitively increasing during the initial phase of negotiations (several years) with host governments and later. The MNCs may for example be abusing their power or agreeing to the government’s corruption schemes, which become more significant in time.
HYPOTHESES (4)
THE MODEL (1)

• Assuming $CI_{i,t} \propto FDI_{j,i,t}^2$ and $CI_{i,t} \propto FDI_{j,i,t}$ where $i \leq N$ is the country, $j$ is the MNC and $t$ is year, the relationship between $CI_{i,t}$ in the country $i$ and $FDI_{j,i,t}$ of the MNC $j$ will have the form of an autoregressive distributed lag ARDL$(q,r)$, for $FDI_{j,i,t}$ to Granger cause $CI_{i,t}$:

$$CI_{i,t} = \eta + \nu_i + \sum_{k=1}^{q} \alpha_k CI_{i,t-k} + \sum_{k=1}^{r} \beta_k FDI_{j,i,t-k}^2 + \sum_{k=1}^{r} \gamma_k FDI_{j,i,t-k} + \varepsilon_{j,i,t},$$

$q, r \geq 1$ \hspace{1cm} (1)
THE MODEL (2)

• For all MNCs present in the country $i$, the transformation (i.e. aggregation across MNCs $j$) $FDI_{i,t-k}^2 = \sum FDI_{j,i,t-k}^2$ and $FDI_{i,t-k} = \sum FDI_{j,i,t-k}$ is be applied to the model, so that:

\[
CI_{i,t} = \eta' + \nu_i' + \sum_{k=1}^{q} \alpha_k' CI_{i,t-k} + \sum_{k=1}^{r} \beta_k' FDI_{i,t-k}^2 + \sum_{k=1}^{r} \gamma_k' FDI_{i,t-k} + \varepsilon_{i,t}', \quad q, r \geq 1
\]  

(2)

• where $\eta$ and $\eta'$ are constants, $\nu_i$ and $\nu_i'$ are individual country effects, $\alpha_k, k \leq q$, $\beta_k, k \leq r$ and $\gamma_k, k \leq r$ and $\alpha_k', k \leq q$, $\beta_k', k \leq r$ and $\gamma_k', k \leq r$ are coefficients of the model, $\varepsilon$ and $\varepsilon'$ are random components (errors), $\{CI_{i,t-k}\}$, $k \leq q$ is the dynamic (autoregressive) $AR(q)$ term, and $\{FDI_{i,t-k}\}$, $k \leq r$ is the overall inflow of FDI into the country $i$. The maximum number of lags $q$ and $r$ will be considered equal to balance the ARDL ($q = r = K$), $ARDL(K, K)$.
## DATA FILE (1)

<table>
<thead>
<tr>
<th>Description</th>
<th>Unit / Formula</th>
<th>Source of data</th>
<th>Interpolated / Extrapolated observations</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CI</strong></td>
<td>Corruption Perception Index, Quality of institutions, index, 0–100</td>
<td>TI, ICGG</td>
<td>3115 (56.19%)</td>
</tr>
<tr>
<td><strong>FDI</strong></td>
<td>Inflows of foreign direct investment, Percentage of GDP</td>
<td>IMF, WB</td>
<td>675 (12.18%)</td>
</tr>
<tr>
<td>Exogenous variables:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Y</strong> Country GNI per capita in purchasing power parity</td>
<td>Percentage of world in the corresponding year</td>
<td>IMF, WB</td>
<td>814 (14.68%)</td>
</tr>
</tbody>
</table>
• Panel data file comprises data for 154 countries for the years 1980–2015 (5544 rows, 22,176 observations).
• To achieve the longest possible time series, missing values in the panel were interpolated with the help of arithmetic means (for $CI$ and $Y$) and zeros (for $FDI$) and extrapolated using repeated beginning and end values.
• The outcome was a partly artificial $CI$ dataset, $\widehat{CI}$, which is used as a proxy for $CI$.
• Extrapolation is based on a strong assumption that former socialist countries or dependent territories had similar economic and social level before the transition or independence as in the early stages of their transition / independence.
RESULTS (1)

• We can observe a non-linear relationship between corruption and FDI inflows a 9-year period for 154 countries since 1980s (balanced panel).

• FDI Granger cause no change in corruption for the first three years, after which the effects of MNCs begin to diverge, regardless of GDP.

• FDI seem to increase corruption to a small degree (less than 5 points) before FDI = 75.43 % of GDP (the local maximum), after which the process is reverted, but this reversion affects less than 10% of cases.
RESULTS (2)

• Schematic graphical representation of the CI – FDI relationship

• This seems to support H2 hypothesis for the first three years and H2A hypothesis afterwards. Either way, H1 is rejected.
Questions?
Thank you for your attention!