Costs and consequences of the expropriation of FDI by host governments

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WORK IN PROGRESS

Abstract

There are no laws preventing a host government from seizing the capital of a foreign direct investment in its borders and then denying any compensation for the foreign investor. Why then do we not see many more expropriations of investor capital by host governments? Compiling a database of expropriations within the minerals sectors of developing countries, we show that there is punishment for expropriation by a host government, but this punishment is not external. Rather the punishment comes in the form of lower reinvestment and growth in the sectors of countries that expropriated in the past. It is partially possible to lose a bad reputation by a host government’s actions after expropriation.

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1 Introduction

This paper takes up the question of the future consequences of expropriation in the minerals sectors of developing countries.¹ What price does a country pay for expropriating a foreign direct investment? Two questions arise from a consideration of these costs—where do these costs come from? and how significant are they?

As to the source of the costs of expropriation, the costs depend on the type of expropriation made by the government:

- for a nationalization the cost will be determined by third party responses, the relative inefficiency of the government in operation of the project and the reinvestment level pf the government; whereas

- for a tax/equity rise, the cost will be determined by third party responses and the reinvestment response of the investor following the expropriation.

¹Expropriation includes:

- seizure of capital, including mining equipment, reserves of the mine or mining rights (a complete seizure of domestic assets of the foreign company is known as a “nationalization”);

- compelled sale of mining company shares to the government or domestic nationals; or

- raising taxes on company revenues or profits

where this act was not a part of the original agreement between the foreign investor and the government.
One aim of this paper is to determine the source of punishment for expropriations of foreign investment.

The second question is the size of the costs of expropriation. Using the same database as this paper, Duncan (2001) found that expropriations occurred in times of price booms in the output mineral of the mining project and not in times of political or economic crises. This suggests that expropriations were not a result of abnormal decision-making processes by the host governments but were a function of calculated economic and political decisions. Duncan suggested that the expropriations in the minerals sector in the 1960s and 1970s occurred due to a change in expectations about minerals prices that required a change in the contracts between investors and host governments. The expropriations were a form of contract renegotiation between investors and governments.

It could be argued that as renegotiations are a normal part of business dealings, renegotiations of foreign direct investment contracts should not be severely punished. Kindleberger (1969) argued for a more lenient view of renegotiation demands by host governments stating that:

Renegotiation of contracts is familiar in the Anglo-Saxon tradition... [An appropriate analogy to renegotiation demands] may be with the successful TV comedian whose agent has little difficulty in getting the network to tear up an old contract with years to run at $500 a week and substitute a new one at $5,000. "My client can be funny only when he's happy", the agent presumably says, "and now that he has made a hit and is worth five thousand dollars a week, he can't be happy at five hundred." Facts are more
compelling than the sanctity of contract \(^2\).

Duncan (2001) showed that host governments expropriate/renegotiate investment contracts when they find that the project is far more profitable than had been originally expected. The linear tax structure under the contract meant that the government’s share of the profits of the project are far smaller than the government would desire. This situation is very close to the “hit comedian” of Kindleberger’s analogy.

But in response it could also be argued that a limited reaction by investors and third parties means that the cost of changing the contract is not very high for the host government. But this can actually turn out to be a bad result for host governments. A high cost of expropriation lowers the average number of expropriations and so lowers the risk faced by investors. With less risk, investors would offer more investments to host governments, making the host government better off. This result is a typical one in the principal-agent literature. Host governments may be better off in an environment in which punishments are very high.

Thus we can not be certain in advance whether or not expropriations are severely punished. The second aim of the paper is to see historically whether the punishment cost of expropriation has been high.

In Section 2 I introduce a modified version of the database used in Duncan (2001). I develop a regression equation from a model of contract renegotiation and punishment in Section 3. In Section 4 I put forward the results of the regressions using the new database.

\(^2\)Kindleberger (1969), page 151.
2 The data

I have constructed a database of government interventions for seven major minerals from 1960 to 1996. The minerals selected were: bauxite, copper, lead, nickel, silver, tin and zinc. These minerals were selected because they are important minerals for developing countries’ export revenues and for developed countries’ industry. The countries in the sample are the eight largest developing country exporters for the period 1965-1975 for each of these minerals. I have excluded (formerly) Communist countries as I assume these countries were not sufficiently linked to the world minerals markets over this period.

To produce this database I searched through various issues of Minerals Yearbook amongst other things an almanac of the minerals industry produced by the US Bureau of Mines, part of the US Department of Interior. I take as an observation whether an intervention took place in a project for that mineral, in that country, in that year.

For each of the seven minerals, I have an index of the real price of that mineral. Real price indices were constructed using the average yearly nominal price reported on the London Metal Exchange as recorded in the International Financial Statistics (various years), except for bauxite. Bauxite is not traded on the London Metals Exchange, so I used the price of Jamaican bauxite in the US from Commodity Trade and Price Trends (various years). Nominal prices are deflated by the US producer price index from the International Financial Statistics (various years). These real mineral prices were then normed to have a mean of zero and a standard deviation of one. All references to “price” will be to the normed real price. Output data by mineral for the countries and years involved were obtained from UNCTAD’s Commodity Yearbook (various years).
The data on political crises is derived from the Polity III database. This database is fully described in Jaggers and Gurr (1995) and is available from the Inter-University Consortium for Political and Social Research. This database contains information on most of the countries and years in the mineral database. The Polity III database contains indices for the level of democracy and autocracy of the political institutions for each country-year. The scale runs from 0 (least democratic/most autocratic) to 10 (most democratic/least autocratic) for each index. Jaggers and Gurr derive a combined measure for each country-year by subtracting the autocracy score from the democracy score to generate a scale of -10 (least democratic) to 10 (most democratic) for the country’s institutions in that year. I call this the “democracy index”. A political crisis in any country-year is indicated by a change in this combined index of three points or more from that of the previous year, according to Jaggers and Gurr.

I have created a series of decade dummies which record the decade in which the observation was made for each of 1960s, 1970s, 1980s and 1990s. I have also created a series of continent dummies that record whether the observation was made on the African, the Caribbean or the Latin American areas.

3 The Punishment Model

Duncan (1999) derives a model of expropriation of FDI where expropriation will occur when the value that the government can seize by expropriation exceeds the cost of expropriation. The cost of expropriation is determined by:

- the relative efficiency of government operation of the mine versus private operation (if the government takes over operation the mine);
• the reinvestment response of the investor (if the investor keeps operation of the
mine but has a lower equity share in the mine);
• any punishment exacted by outside parties, such as countries of origin of the
investors; and
• any compensation for lost capital paid by the host government to the investors.

We address the latter two channels of costs first. As a stylized fact, expropriations
do not provoke a response from the general business community, from multinational
institutions or even from the country in which the investor is based. The following
examples illustrate this point.

In 1967 Zaire nationalized the Belgian copper mining consortium which operated
the copper mines in its country. In the wake of the nationalization Zaire sent copper ore
for processing to the same refineries in Belgium that had been used by the consortium.
While the nationalization was ongoing, a Japanese consortium was prospecting another
copper ore body in Zaire.

In 1968, the new Peruvian junta nationalized the oil fields and refineries of the
International Petroleum Company, a U.S. company. In 1969 the Southern Peru Copper
Corporation, partially controlled by U.S. companies, agreed to a US$355m copper
development- one of the largest such investments in the world.

Expropriations do not deter future foreign investment by the business community,
even in the case of past expropriations in the same industry as in the Zairean example.
It seems then that international investors do not cooperate to punish expropriators by
denying future foreign investment.
The response by multinational bodies to expropriation has not been a strong one. Truitt (1974) has a table \(^3\) setting out World Bank loans to countries which expropriated in the 1950s and 1960s. There is no apparent difference in loans made before episodes of expropriation or after those episodes.

Responses by parent countries to expropriations have been muted, even for those countries such as the United States which might be expected to have an interest in enforcing international contracts. The United States has a reputation for protecting the property of its citizens and has several laws on its books to punish foreign countries which expropriate the property of its nationals. The Foreign Assistance Act of 1961\(^4\) and the Sugar Act provide for withdrawal of foreign aid and for the withdrawal of sugar quotas for those countries which expropriated the property of US nationals without "prompt, adequate and effective" compensation.

After the seizure of its property by the Peruvian government, the International Petroleum Company appealed to the U.S. government for assistance. The United States government threatened to invoke the Hickenlooper Amendment but backed down stating that the company and the Peruvian government were still in negotiations over compensation.

In 1971 Chile nationalized the large U.S.-owned copper mines in its country. When negotiations over compensation between the companies and the Chilean government broke down, the United States considered invoking the Hickenlooper Amendment but again decided against withdrawing foreign aid to Chile.

Given that punishment by the international community is rarely a response to acts of expropriation, foreign companies must be taking this fact into account when

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\(^3\) Table 5 on pages 82-83.

\(^4\) Also known as the Hickenlooper Amendment.
they negotiate with developing countries. Companies can not expect enforcement of contracts by third parties, and the possibility of expropriation must be an implicit part of any contract.

The payment of compensation for lost capital for foreign investors is not required by international law, and even if compensation is paid, expropriations are only partially compensated. For nationalized property this compensation typically included only the book value of the mining equipment seized and not the value of the reserves or mining rights expropriated. The following examples illustrate this point.

In 1969 Zaire settled with the Belgian copper companies which it had nationalized by promising a portion of future revenue to the companies. Peru settled with the International Petroleum Corporation with a lump-sum compensation, as did Chile with the U.S. copper-mining companies.

Zambia acquired a 51 percent share in the two copper companies in its country in return for which the government gave the foreign investors government bonds. Using an analogy to finance, if seizing a mining project’s property is gaining equity, then issuing bonds in order to purchase shares in the mine is a leveraged buy-out.

In a survey for the period 1956 to 1972, Williams (1975) found that companies nationalized in non-Socialist countries received compensation amounting to 67 percent of the value of the assets seized. But note that this compensation was only for the book value of the mining capital seized, not the value of the mineral deposit, which would typically be far greater. Compensation rates, meaning the percentage of expropriations for which some form of compensation was made, in the mining and smelting industries

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5 Williams defines “non-Socialist” nationalizations as episodes of nationalization in which less than 80 percent of the existing foreign assets were seized by the host government.
were higher than other industries with 65 percent of all countries which expropriated making some form of compensation to the affected companies.

The anecdotal and secondary data then do not reveal external punishment or compensation to be a significant source of punishment for expropriation. Thus the costs for expropriation must come from within the investment itself, from either of the first two sources of costs—relative inefficiency of government operation and investor reinvestment response. Punishment must then come in the form of lower government revenue from the mining project in the years following the expropriation.

As data on revenues from direct investments is not available, I use output of the sector for that country as a proxy for revenues. Our interest then is whether a past expropriation significantly lowers the path of output for a country sector below that of a country sector which did not experience an expropriation. Since we are only interested in the slope of the path of output, a natural normalization is to use the percentage change in output per year, or, equivalently, to use the first difference of the logs of output in each sector of each economy from each year to the previous year. I test whether a past expropriation has any effect on current growth of output. This test is generated by creating a dummy variable “Badname” that takes on the value one if there has been an expropriation in that country/sector in that year or a prior year and zero otherwise.

Similarly it is proposed that governments may be able to reduce the costs of past expropriations by de-expropriating. This might involve selling off government assets in that industry to foreigners, selling government equity to foreigners or lowering tax rates in that industry. I test whether a de-expropriation has any effect on lessening the negative consequences of a prior expropriation. This test is generated by creating
a dummy variable “Goodname” that takes on the value one if there has been a de-expropriation in any year since an expropriation took place and zero otherwise.

An alternative hypothesis for expropriation and the path of output would be the Vernon (1971) concept of foreign investment as a “obsolescing bargain”. According to Vernon, as the end of the life of a mine approaches, reinvestment becomes less important. As reinvestment is lower, the government’s need for the foreign investor drops. At some point, the host government would simply take over the mine and run the mine down. Under the Vernon hypothesis, we would expect that governments would take over a mine as it is depleting, so Badname would have a negative expected sign, but Goodname would also have a negative expected sign, as no subsequent actions by the government could make a depleted mine function again.

It is proposed that the change in output might be a function of current price for that mineral $^6$. Additional regressors which may be of importance are the occurrence of a political crisis or internal war that same year and the level of democracy of the political institutions of that country. I test for the introduction of these regressors. Additionally we have dummy variables for the decade concerned and the continent/area in which the country is located.

Indexing $i$ for the particular country/sector and $t$ for the time. The model we estimate is of the form

\[
\Delta(\text{Output})_{it} = \gamma_0 + \gamma_1 \text{Price}_{it} + \gamma_2 \text{Badname}_{it} + \gamma_3 \text{Goodname}_{it} \\
+ \gamma_5 \text{CountryVariables}_{it} + \gamma_6 \text{Dummies}_{it} \tag{1}
\]

$^6$Lagged prices of the mineral were introduced, but they were not significant in the regressions. Their exclusion did not affect the analysis.
where the set of country variables and dummies changes across the regressions. I call this model the “Punishment Model”.

The first regression includes only the real price variable, the past expropriation dummy, the past de-expropriation dummy and the decade dummies. The results of this regression are reported in the first column of Table 1. The second regression includes all of the variables from the first regression plus the political crisis dummy and the continent dummies. The results of this regression are reported in the second column of Table 1. The third regression adds the democracy index to the previous regressors and is reported in the third column of Table 1.

4 Presentation of the regression results

Table 1 presents the results of the regressions on the Punishment Model. I have suppressed the coefficients from the time and continent dummies, as the importance of these effects comes out only in the predictions in Table 2. I use Table 1 to discuss the sign and significance of the variables. Table 2 is useful for illustrating the economic importance of the variables.

Current price is positive but insignificant in all three regressions. Despite the failure of price to be a significant regressor, I retain price in the regression as there are strong reasons to believe price is important in the output decision.

The estimated effect of past expropriations is to reduce output by about 9 percent each year. This coefficient is stable and statistically significant at the 1 percent level across all of the regressions.

The estimated effect of a past de-expropriation is to increase output by about 6
percent per year. This coefficient is stable across the regressions. The coefficient is significant at the 5 percent level in the simplest model, but is significant at the 10 percent level in the second and third models.

The occurrence of a political crisis is estimated to lower output by 10 percent in the same year for the second regression, but by only 4 percent in the third regression. The political crisis dummy is significant at the 1 percent level in the second model, but is not significant at the 10 percent level if we include a democracy index.

The democracy index is not significant in the third regression, and the model performs poorly with the inclusion of the democracy index. The democracy index will be dropped from the set of regressors.

Table 2 presents the predicted percentage rates of change from the second regression on Table 1. We see that the 1980s and 1990s were poor decades for this subset of minerals exporters. A prior expropriation made turned a slow growth decade (the 1980s) into a decade of declining output. The rate of decrease for countries with a prior expropriation was the lowest in the 1990s at 15 percent per year.

Table 2 also shows that countries with prior expropriations could regain their reputation partly by de-expropriating. On net those countries that de-expropriated grew about 3 percent less than those countries that never expropriated, but 6 percent faster than those countries that did not de-expropriate.

4.1 Accounting for panel data

Table 3 presents regression estimates from procedures that account for the similarity between years in each country sector. Comparing the estimated coefficients from Table 3 with those from the second regression in Table 1, we see that accounting for these
similarities does not change the results of the empirical work significantly.

4.2 Does the form of expropriation make a difference?

Table 4 tests whether there is a significant difference between the effect of expropriation through nationalization or through taxes. Comparing the estimated coefficients from Table 4 with those derived for the random effects regression in Table 3, we see that the individual effects of a nationalization or a tax rise are approximately equal and reduce growth of output by 5-6 percent each.

The Hausman test for the first random effects regression in Table 4 suggests that the random effects formulation might produce biased estimators. However if I omit the political crisis dummy, the Hausman test statistic is no longer a concern. As omission of the political crisis dummy does not significantly affect the estimated coefficients of the other regressors \(^7\), I can drop the political crisis dummy and keep the random effects formulation.

4.3 Discussion of the regression results and conclusion

Across all specifications of the Punishment Model, current real price of the mineral was not a significant regressor of output growth. While price is not an crucial part of the logic of the model used here, there are strong reasons to believe that price should be correlated with output.

One possible explanation is that mining projects have a fixed capacity that is difficult to adjust within the span of a year. Mines may respond to price changes but only over a much longer horizon.

\(^7\)Compare the estimated coefficients in columns one and two of Table 4.
We see that past expropriations have a significant cost in terms of foregone future output. The coefficient of past expropriation was large, negative and strongly significant across all the formulations of this model. This data suggests that countries with past expropriations can expect to have output growth of that mineral almost 10 percent less than countries with no past history of expropriations. The Kindleberger view that expropriations should be handled leniently does not seem to be the accepted view of investors.

This cost is approximately equal for countries which nationalized and countries which raised taxes or government equity. The assumption used in Chapters 2 and 3 that the form of expropriation was not important for determining the costs of expropriation seems a reasonable one.

The coefficient on de-expropriations was positive and significant at the 10 percent level across all the regressions. This suggests that future actions can go some way to reducing the cost of past expropriations. This result also weakly rejects the Vernon hypothesis of expropriation as a “obsolescing contract”, as we would not expect Goodname to have a positive sign.

References


Table 1: Results of the Regressions for Punishment Model  
(Dependent variable is the log change in mineral output per year)

<table>
<thead>
<tr>
<th>Regression:</th>
<th>Simplest Model</th>
<th>Model with Dummies</th>
<th>Model with Democracy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Real Price of Mineral</td>
<td>0.0172 (0.88)</td>
<td>0.0194 (0.94)</td>
<td>0.0848 (0.41)</td>
</tr>
<tr>
<td>Past Expropriation</td>
<td>-0.094 (-5.72)</td>
<td>-0.0901 (-4.73)</td>
<td>-0.0924 (-4.86)</td>
</tr>
<tr>
<td>Past De-Expropriation</td>
<td>0.0671 (2.34)</td>
<td>0.061 (1.89)</td>
<td>0.06 (1.86)</td>
</tr>
<tr>
<td>Political Crisis</td>
<td>-</td>
<td>-0.101 (-3.83)</td>
<td>-0.0419 (-1.36)</td>
</tr>
<tr>
<td>Democracy Index</td>
<td>-</td>
<td>-</td>
<td>-0.000538 (-0.42)</td>
</tr>
<tr>
<td>Decade Dummies</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Continent Dummies</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>No. Observations</td>
<td>1863</td>
<td>1636</td>
<td>1586</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.046</td>
<td>0.065</td>
<td>0.048</td>
</tr>
</tbody>
</table>

Notes: 1. The numbers in parentheses are significance tests and are asymptotically normal.  
2. Intercepts are included in the regressions but are not reported.
Table 2: Predicted Annual Output Growth per Year from Punishment Model Regression Estimates (Predicted Percent Growth in Output per Year)

<table>
<thead>
<tr>
<th>Continent: Africa</th>
<th>Decade</th>
<th>1960s</th>
<th>1970s</th>
<th>1980s</th>
<th>1990s</th>
</tr>
</thead>
<tbody>
<tr>
<td>Government Reputation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>With no past expropriation</td>
<td>6.6</td>
<td>8.6</td>
<td>2.6</td>
<td>-8.4</td>
<td></td>
</tr>
<tr>
<td>With past expropriation</td>
<td>-2.4</td>
<td>-0.4</td>
<td>-6.4</td>
<td>-17.5</td>
<td></td>
</tr>
<tr>
<td>With past expropriation and subsequent de-expropriation</td>
<td>3.7</td>
<td>5.7</td>
<td>-0.3</td>
<td>-11.4</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Continent: Caribbean</th>
<th>Decade</th>
<th>1960s</th>
<th>1970s</th>
<th>1980s</th>
<th>1990s</th>
</tr>
</thead>
<tbody>
<tr>
<td>Government Reputation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>With no past expropriation</td>
<td>7.5</td>
<td>9.5</td>
<td>3.5</td>
<td>-7.5</td>
<td></td>
</tr>
<tr>
<td>With past expropriation</td>
<td>-1.5</td>
<td>0.4</td>
<td>-5.5</td>
<td>-16.6</td>
<td></td>
</tr>
<tr>
<td>With past expropriation and subsequent de-expropriation</td>
<td>4.6</td>
<td>6.5</td>
<td>0.6</td>
<td>-10.5</td>
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<table>
<thead>
<tr>
<th>Continent: Latin America</th>
<th>Decade</th>
<th>1960s</th>
<th>1970s</th>
<th>1980s</th>
<th>1990s</th>
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<tbody>
<tr>
<td>Government Reputation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>With no past expropriation</td>
<td>8.7</td>
<td>10.7</td>
<td>4.8</td>
<td>-6.3</td>
<td></td>
</tr>
<tr>
<td>With past expropriation</td>
<td>-0.3</td>
<td>1.7</td>
<td>-4.2</td>
<td>-15.3</td>
<td></td>
</tr>
<tr>
<td>With past expropriation and subsequent de-expropriation</td>
<td>5.8</td>
<td>7.8</td>
<td>1.9</td>
<td>-9.2</td>
<td></td>
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</table>

<table>
<thead>
<tr>
<th>Continent: Oceania, Others</th>
<th>Decade</th>
<th>1960s</th>
<th>1970s</th>
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<tr>
<td>Government Reputation</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>With no past expropriation</td>
<td>10.7</td>
<td>12.7</td>
<td>6.7</td>
<td>-4.3</td>
<td></td>
</tr>
<tr>
<td>With past expropriation</td>
<td>1.7</td>
<td>3.7</td>
<td>-2.3</td>
<td>-13.3</td>
<td></td>
</tr>
<tr>
<td>With past expropriation and subsequent de-expropriation</td>
<td>7.8</td>
<td>9.8</td>
<td>3.8</td>
<td>-7.3</td>
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Table 3: Accounting for Panel Data Correlations
(Dependent variable is the log change in output per year)

<table>
<thead>
<tr>
<th>Correction:</th>
<th>Fixed Effects</th>
<th>Random Effects</th>
<th>Between Equations</th>
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<tr>
<td>Real Price of Mineral</td>
<td>0.0239</td>
<td>0.0204</td>
<td>0.0541</td>
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<tr>
<td></td>
<td>(1.16)</td>
<td>(0.99)</td>
<td>(0.28)</td>
</tr>
<tr>
<td>Political Crisis</td>
<td>-0.0869</td>
<td>-0.0985</td>
<td>-0.166</td>
</tr>
<tr>
<td></td>
<td>(-3.26)</td>
<td>(-3.75)</td>
<td>(-1.13)</td>
</tr>
<tr>
<td>Past Expropriation</td>
<td>-0.0675</td>
<td>-0.0885</td>
<td>-0.127</td>
</tr>
<tr>
<td></td>
<td>(-2.14)</td>
<td>(-4.36)</td>
<td>(-3.86)</td>
</tr>
<tr>
<td>Past De-Expropriation</td>
<td>0.072</td>
<td>0.0612</td>
<td>0.108</td>
</tr>
<tr>
<td></td>
<td>(1.88)</td>
<td>(1.84)</td>
<td>(1.45)</td>
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<th></th>
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<tbody>
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<td>No. Groups</td>
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<td>0.052</td>
<td>0.002</td>
</tr>
<tr>
<td></td>
<td>0.147</td>
<td>0.226</td>
<td>0.578</td>
</tr>
<tr>
<td></td>
<td>0.06</td>
<td>0.065</td>
<td>0</td>
</tr>
</tbody>
</table>

Notes: 1. The numbers in parentheses are significance tests and are asymptotically normal.
2. Intercepts, continent dummies and decade dummies are included in the regressions but are not reported.
Table 4: Test for Importance of Form of Expropriation
(Dependent variable is the log change in output per year)

<table>
<thead>
<tr>
<th></th>
<th>With Crisis</th>
<th>Without Crisis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Correction: Random Effects</td>
<td>Random Effects</td>
<td></td>
</tr>
<tr>
<td>Real Price of Mineral</td>
<td>0.0198 (0.96)</td>
<td>0.017 (0.87)</td>
</tr>
<tr>
<td>Past Nationalization</td>
<td>-0.0545 (-2.21)</td>
<td>-0.0587 (-2.67)</td>
</tr>
<tr>
<td>Past Equity/Tax Rise</td>
<td>-0.061 (-2.63)</td>
<td>-0.0525 (-2.50)</td>
</tr>
<tr>
<td>Past De-Expropriation</td>
<td>0.0623 (1.77)</td>
<td>0.0654 (2.07)</td>
</tr>
<tr>
<td>Political Crisis</td>
<td>-0.0952 (-3.62)</td>
<td>-</td>
</tr>
</tbody>
</table>

Decade Dummies          | Yes | Yes |
Continent Dummies       | Yes | Yes |

No. Observ.            | 1636 | 1863 |
No. Groups             | 54   | 56   |
R-squared- within      | 0.052 | 0.041 |
R-squared- between     | 0.189 | 0.089 |
R-squared- overall     | 0.06  | 0.047 |
Hausman test signif.   | 0.045 | 0.605 |

Notes: 1. The numbers in parentheses are significance tests and are asymptotically normal.
2. Intercepts are included in the regressions but are not reported.