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How Institutions Shape Land Deals:
The Role of Corruption

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Abstract

Large-scale land acquisitions often take place in developing countries which are also known for their corruption-friendliness caused by weak institutional frameworks. We hypothesize that corruption indeed leads to more land deals. We argue that corrupt elites exploit poor institutional setups (characterized by corruption) to strike deals with domestic and international investors at the expense of the local population. Using panel data for 156 countries from 2000-2011, we provide evidence that large-scale land deals indeed occur more often in countries with higher levels of corruption. The estimated effects are also economically substantive and particularly relevant to economies with unsound institutions.

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1. Introduction

In recent years, large-scale land acquisitions (often called *land grabbing* by their critics) have become a significant worldwide phenomenon. The main destination regions of the land investments are developing countries in the Global South, especially Sub-Saharan Africa, but also in Latin America and South East Asia (Merlet & Jamart, 2009; Rulli et al., 2013). According to estimates based on the *Land Matrix Database*, these land acquisitions (concluded and intended contracts) amount to 55 million (Land Matrix Dataset, 12.12.2014) hectares of purchased or leased land all over the world between 2000 and 2011, with numbers still growing (Anseeuw et al., 2012). Standard theory on foreign direct investments (*FDI*) would suggest that land investments ought to have positive effects on the target countries because the inflow of *FDI* will help to overcome any lack of real capital which would otherwise lead to an under-utilization of agricultural land. This in turn is also expected to foster economic growth and thereby improve people's quality of living. Indeed, reports by the *World Bank* (e.g., Deininger et al., 2011) find such positive effects arising from investments in farmland. Yet, other reports point to the opposite direction (e.g., Cotula, 2013). That is, instead of having welfare-enhancing and pacifying effects, these very land deals may contribute to economic stagnation (or even economic slump), economic degradation and internal conflicts, such as those being recently observed in Madagascar, Tanzania and the Senegal. In sum, given the scope of the phenomenon of large-scale land acquisitions and their potentially large (positive and/or negative) socio-economic repercussions in the target countries, it is necessary to have a better understanding of the drivers of this rather-recent development.

Previous research has shed some lights on the factors that govern the demand of countries and corporations for land in foreign countries. In many instances, such investments seem to be *resource-seeking*, meaning that they involve "investing in a host country market in order to achieve cost-minimization motives by obtaining resources either too costly to obtain or unavailable in the homemarket" (Brouthers et al., 2008: 673).[1] That is, the goal of many transnational commercial land deals is to produce and export food and biofuel crops to the investors' home countries on a large scale (Borras & Franco, 2012) and to gain access to water (Rulli et al., 2013) and other raw materials (e.g., minerals, woods). Often, the ultimate goal of large-scale land deals is thus to secure food safety (that may be endangered due to population growth or dietary changes) or supply with energy or raw materials important to industrial production (e.g., Shepard & Anuradha, 2009). Given these motivations for land acquisitions on parts of foreign investors, it is not suprising that Arezki et al. (forthcoming) show that foreign land acquisition for large-scale agricultural investment are strongly determined by agro-ecological potential in the target countries of land deals (e.g., in terms of land availability and productivity).

There is less (empirical) research on the role of institutional factors in the target countries of land deals. Some studies come to the conclusion that land grabbing activities originate from weakly protected land titles emerging from weak institutional frameworks (Borras et al., 2011;

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[1] Brouthers et al. (2008) argue that foreign investment may also be market-seeking. While we cannot rule out that some large-scale land deals (e.g., in tourism, industry or infrastructure) may serve the purpose of gaining access to foreign markets, this motive for land acquisitions is very likely to be secondary to the resource-seeking motive.

Cotula et al, 2009; Deininger et al., 2011; Mehlum et al., 2006, discuss a related problem, the "resource curse"). For instance, Arezki et al. (forthcoming) find that weak land governance (e.g., associated with the recognition and protection of land property rights) leads to more land deals. A recent Oxfam report on land deals (Oxfam, 2013: 4) comes to the conclusion that "investors actively target countries with weak governance in order to maximise profits and minimise red tape. Weak governance might enable this because it helps investors to sidestep costly and time-consuming rules and regulations […]". That is, while the evidence is sparse, it generally suggests that institutional weaknesses invite large-scale land acquisitions. In this contribution, we shall consequently study another factor that contributes to institutional weakness, *corruption*, and its role in land deals.

To better understand the role of corruption in land deals, we can study the much more extensive literature on the relationship between corruption, FDI and economic development (for a review, see Aidt, 2009). Here, the relationship between corruption and FDI is a priori unclear. On the one hand, it may introduce inefficiencies which discourage FDI and ultimately reduce economic activity (Aidt, 2009). On the other hand, corruption can also be argued to stimulate FDI, meaning that "corruption facilitates beneficial trades that would otherwise not have taken place. In doing so, it promotes efficiency by allowing individuals in the private sector to correct pre-existing government failures of various sorts" (Aidt, 2009: 273).

Given the nature and institutional setting of large-scale land acquisitions, we expect corruption to rather "grease the wheels" of land commerce rather than "sanding the wheels". Land deals involve power asymmetries between different parties involved in these deals. Borras & Franco (2012) argue that these deals are typically initiated through, on the one hand, international investors (multinational companies, sovereign wealth fund, state-owned enterprises) and, on the other hand, destination countries' central or local governments. Another group typically left out (which also rarely demands land deals in the first place) is the local population which often claims—usually to no avail—customary land use rights. Since these rights are "only" customary, governments and investors tend to ignore them while instead referring to formal land rights (which might even be implemented for sales purposes only). This is especially true in institutionally weak countries where property rights are neither honored nor well protected and where governments are often represented by corrupt elites consisting of, inter alia, local politicians and land lords.

Arguably, in these countries corruption may enable land deals in the first place or at least facilitate them to a great extent. In corruption-friendly countries authorities on the central (and, partly, on the local) level are assumed to act opportunistically, i.e., to the best of their own (economic) advantage. For instance, selling off land which has so far been used by the local population or even nomadic people might leave the affected groups in despair, but yield the (urban) elites gratifications from the investors (Kenney-Lazar, 2012; Lavers, 2012). These benefits might also come in the form of improvements in urban (or, rather, the capital city's) infrastructure, while likely producing little positive effects for rural areas where most land deals can be expected to take place. Even more likely, these land deals may produce negative effects for rural areas (e.g., environmental damage, economic losses). From the (international) investor's perspective, approaching corrupt government officials appears advantageous as well because bribing them might facilitate the acquisitions and help to realize a price level

(and other attractive conditions) that could not be realized if markets worked efficiently. Hence, we hypothesize that more corrupt governments facilitate land grabbing activities. That is, empirically we expect to see (comparatively) high levels of corruption to coincide with (comparatively) high levels of land acquisitions.

In the next section, we introduce our methodology and data. Section 3 provides our empirical results. Section 4 concludes.

2. Data and Methodology

In total, we collect panel data on land deals, corruption and the other control variables for a maximum of 156 countries for the period of 2000 to 2011.

2.1 Dependent Variables and Methods

Data on land deals is drawn from the *Land Matrix Dataset* (Land Matrix Global Observatory, 2014). This dataset is produced by a global, independent land monitoring initiative. For a land deal (i.e., an intended, concluded or failed attempt to acquire land through purchase, lease or concession) to be recorded by the dataset, the deal must (i) entail a transfer of rights to use, control or ownership of land through sale, lease or concession; (ii) have been initiated since the year 2000; (iii) cover an area of 200 hectares or more; and (iv) imply the potential conversion of land from smallholder production, local community use or important ecosystem service provision to commercial use (Land Matrix Global Observatory, 2014). Here, land deals may be made for agricultural production, timber extraction, carbon trading, industry, renewable energy production, conservation, and tourism in low- and middle-income countries. In our study, we concentrate on concluded (by oral agreement or signed contract) rather than intended or failed land acquisitions, as this category is the most reliable one.

From the *Land Matrix Dataset* we construct two dependent variables. The first dependent variable is the *total size of land deal contracts* (in hectares) for a specific country-year observation. As shown in Table 1, the variance of this variable is larger than its mean (overdispersion). What is more, the variable is a (non-negative) count. Thus, when we consider this dependent variable we use *a negative binomial maximum-likelihood estimation model* to examine the effect of corruption on land deal size.[2]

The creators of the *Land Matrix Dataset* acknowledge that their dataset may not have been fully reliable in the past, mostly because land deals (especially in less developed economies) tend to be non-transparent. Besides, they also emphasize the circumstance of significantly underestimating the scale of land deals, due to the fact of limited research, which has been undertaken so far. With the most recent update of the data set, data quality has improved substantially [3] Given that the *Land Matrix Dataset* draws information on land deals (in addition

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[2] As a robustness check, we also run a series of Tobit regressions using the total size of land deal contracts as the dependent variable. The Tobit model is chosen due to the left-censoring of the land deal variable. As shown in the appendix, the Tobit regression results are in line with the results reported in the main text.

3 The issue of data quality is discussed in more detail on the *Land Matrix* website (http://www.landmatrix.org/en/about/). As the dataset still evolves the creators re-launched the project in June 2013 and revised the whole database to eliminate erroneous entries and deals not fitting the parameters

to information from NGOs and academic reports) from official government records, company websites, and media reports, the over- or under-reporting of land deals may nevertheless still be an issue. Thus, we also construct a second *dichotomous variable* that is coded 1 if any land deal is reported to take place for a specific country-year observation and 0 otherwise. While this variable does not reflect contract size but only the mere occurrence of land deals, it may still be helpful to also consider it as it is less likely to be affected by any reporting bias. Given the dichotomous nature of this second dependent variable, we use a (binary) *logit regression model* to estimate the effect of corruption on the occurrence of land deals.

—Table 1 here—

2.2 Measuring Corruption

Our main hypothesis is that more corrupt countries are expected to be likelier targets of land deals. To operationalize corruption, we use a *corruption control index* drawn from the *World Governance Indicators* of the *World Bank*.[4] The index measures the perception of corruption within a country, e.g., with respect to transparency, accountability and corruption in the public sector, irregular payments to public officials (e.g., politicians, judges), and the existence of anti-corruption and transparency programs. A higher value of the index corresponds to a higher level of corruption control. Consistent with our main hypothesis, we expect a negative relationship between corruption control and "land grabbing".

Given that anecdotal evidence suggests that too high levels of corruption may make the institutional environment so unpleasant that even hardboiled investors shy away from investing in those countries, we also account for non-linearity in the nexus between corruption and land deals. For instance, it may be possible that high levels of corruption coincide with very high corruption costs and investment insecurity for potential land investors, which could then outweigh any benefits from corruption for land acquisitions associated with lower levels of corruption. Thus, we also test for a non-linear (quadratic) effect of corruption on land deals in one model specification.

2.3 Control Variables

To add to the robustness of our findings, we also replace the corruption control index in some specifications for variables measuring *regulatory quality* and the *rule of law*.[5] The operationalization of these variables is given in Table 1. Similar to corruption control, we also expect land deals to become less likely with increasing levels of regulatory quality and a better rule of law, given that such improvements can also be anticipated to reduce the power asymmetries between different parties involved in land deals, especially with respect to the local (rural and poor) population.

We further control for additional economic, demographic, geographic and politico-institutional factors to avoid detecting only spurious effects of corruption on land deals. The

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discussed above. Additionally, to ensure up-to-dateness of their data in future, a new updating process was implemented. For our analysis we consider the *Land Matrix Dataset* provided in December 2014.

4 See http://info.worldbank.org/governance/wgi/index.aspx#home.

5 The correlation between corruption control and regulatory quality (*r=0.87*) and corruption control and the rule of law (*r=0.94*) is very high. To avoid multicollinearity, we therefore only consider these variables in separate model specifications.

variables, their data sources and operationalization are presented in Table 1. Here, we expect land deals to become more likely with a higher level of globalization (indicating a higher economic openness that facilitates *FDI*), more available fertile land and higher agricultural productivity (both of which ought to make especially agricultural land deals more likely), macroeconomic health (where economic growth ought to signal an attractive investment climate), and political instability (which is expected to increase the risk for *FDI*). By contrast, land deals ought to become less probable with higher levels of economic development (which accounts for the stylized facts that land deals mainly concern the Global South), population density and institutional improvements beside corruption control, such as better democratic institutions (which make it less likely that parts of the population are ignored when land deals are considered). Finally, we include year and regional dummies to control for time- and region-specific fixed-effects.

3. Empirical Results

3.1 Main Findings

The negative binomial regression results are reported in Table 2. Considering our main variable of interest, we consistently—and in line with our main hypothesis—find that higher levels of corruption control are associated with a smaller size of land deals. We, however, find no evidence of a non-linear relationship between corruption and "land grabbing". Replacing corruption control with variables for regulatory quality (i.e., property rights protection) and the rule of law yields similar findings. In sum, better legal-economic institutions are associated with a smaller size of land deal contracts.

—Table 2 here—

The logit regression results are shown in Table 3. Similar to the findings reported above, we find that corruption tends to be negatively and statistically significantly correlated with the likelihood of land deals materializing. The same is true for the rule of law but not for regulatory quality. Taken together with the negative binomial regression results, our results strongly suggest that the level of corruption is a very strong and consistent predictor of land acquisition activity.[6]

—Table 3 here—

Briefly discussing the controls for both the negative binomial and logit regressions, our findings are largely in line with our expectations. First, land deals are more likely when economies are economically integrated. Globalization is expected to coincide with better access to local markets, which in turn may also promote foreign investments in land deals. Second, incentives for agricultural investment matter, where productivity (in terms of cereal

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[6] As suggested by a referee, it may be possible that more land deals lead to more corruption, meaning that reverse causation may affect our findings. For instance, more land deals may coincide with greater foreign interest in the economic activity of a country, thus potentially fuelling corruption. We consider such linkages by controlling for the effect of economic growth on land deals. Indeed, as shown Tables 2 and 3, higher economic growth is associated with more land deals (potentially because economic growth measures a country's economic attractiveness also in terms of land deals). However, even after controlling for economic growth we still find that corruption control exerts an independent (negative) impact on land deals.

yield) is always found to be more important than the mere availability of arable land. Third, land deals are less likely in rich countries. This is likely to reflect the facts that land deals mainly concern the Global South. Fourth, population density is negatively related to land deals. Higher population density may coincide with greater resource scarcity (making large land deals less likely). Fifth, land deals become larger and more likely when a country's economic performance is good. This may have to do with the fact that macroeconomic health attracts domestic and foreign investment, which also ought to matter to the attractiveness of investment in land. Finally, considering the additional institutional variables, we find that democratic institutions tend to make land deals less likely. Potentially, governments that have to cater to local demands due to democratic controls are less likely to agree to (large) land deals. By contrast, we find—somewhat surprisingly—little evidence that political stability promotes land deals.[7] In any event, it seems to be the case that corruption control plays an important role in determining the occurrence and extent of land deals even after we control for a host of other potential determinants.

3.2 Economic Substantiveness of the Effects of Corruption Control

In the previous subsection we have shown that corruption control leads to a significantly smaller size of land deals (negative binomial regression results) and to a lower likelihood of any land deals materializing (binary logit regression results). In this subsection we shall also briefly discuss the economic substantiveness (in addition to statistical significance studied in the previous subsection) of these findings.

—Table 4 here—

Using specifications (1) in Table 2 and (3) in Table 4, respectively, for the estimations we report how the expected count (i.e., size) of land deals (negative binomial regression) and the expected odds of observing a land deal (binary logit regression), respectively, change when the corruption index increases by one unit or standard deviation, while all other variables are held constant. In short, the economic substantiveness of the effect of corruption control on land deals is very substantial. First, a one unit-change (i.e., increase) in corruption control leads to a reduction of the expected count of land deals by 99 per cent. Second, a one unit-increase in corruption control is also associated with a 64 per cent reduction of the expected odds of observing a land deal.

In Figures 1 (negative binomial regression) and 2 (binary logit regression), we show the marginal effects of specific values of corruption control on the size and likelihood of land deals, respectively, holding all other time-variant covariates at their means (the time and regional dummies are held at zero).

—Figure 1 here—

Figures 1 and 2 further inform the findings reported in Table 4. First, we find that higher levels of corruption control are indeed associated with fewer and less likely land deals; the relationship between the two variables is negative and rather linear. Second, we show that

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[7] The nexus between political stability and land deals may be more complex and potentially be driven by simultaneity. For instance, land deals may have also contributed to the 2009 Malagasy political crisis. We believe that studying the stability-land grabbing nexus may be a promising avenue of future research to shed additional light on the interaction between institutional development and land deals.

higher levels of corruption control lead to "diminishing returns" with respect to their estimated effect on the size and likelihood of large-scale land acquisitions. The role of corruption control in land deals tends to be more relevant to corruption-friendly countries. In general, the (very large) economically substantial effects reported in Table 4 are thus very likely to be driven by circumstances in corruption-friendly countries.

—Figure 2 here—

4. Conclusion

In this contribution we analyze the role of corruption (and other institutional quality variables) in "land grabbing", a recent phenomenon which mainly affects less developed economies. Our findings for 156 countries for the 2000-2011 period suggests that corruption is consistently associated with an increased likelihood and size of land deals. The estimated effects are also economically substantive. Finally, we are able to show that improvements in corruption control mainly benefit (in terms of fewer land deals) countries that have been more corrupt in the first place. Further improvements in corruption control in countries that already enjoy strong institutions seem to only rather marginally discourage land deals.

In sum, our findings suggest that land deals—in the popular discourse oftentimes linked to backroom deals between international firms and venal local elites—can indeed be reined in by institutional improvements that reduce corruption (e.g., transparency legislation) particularly when institutions are rather poor. For instance, such reforms can be expected to make public officials less susceptible to bribery and more accountable to the petitions of rural communities which are often affected the most by the phenomenon of "land grabbing". Such reforms are especially desirable when land deals have negative economic and social consequences for more vulnerable parts of societies of developing economies.

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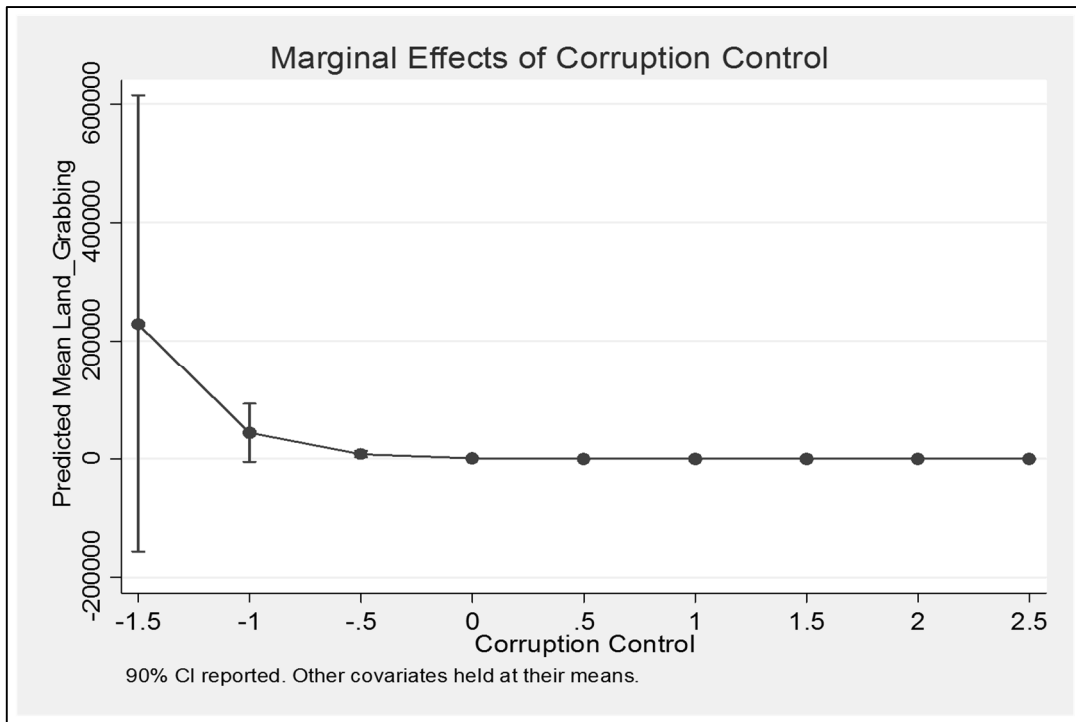
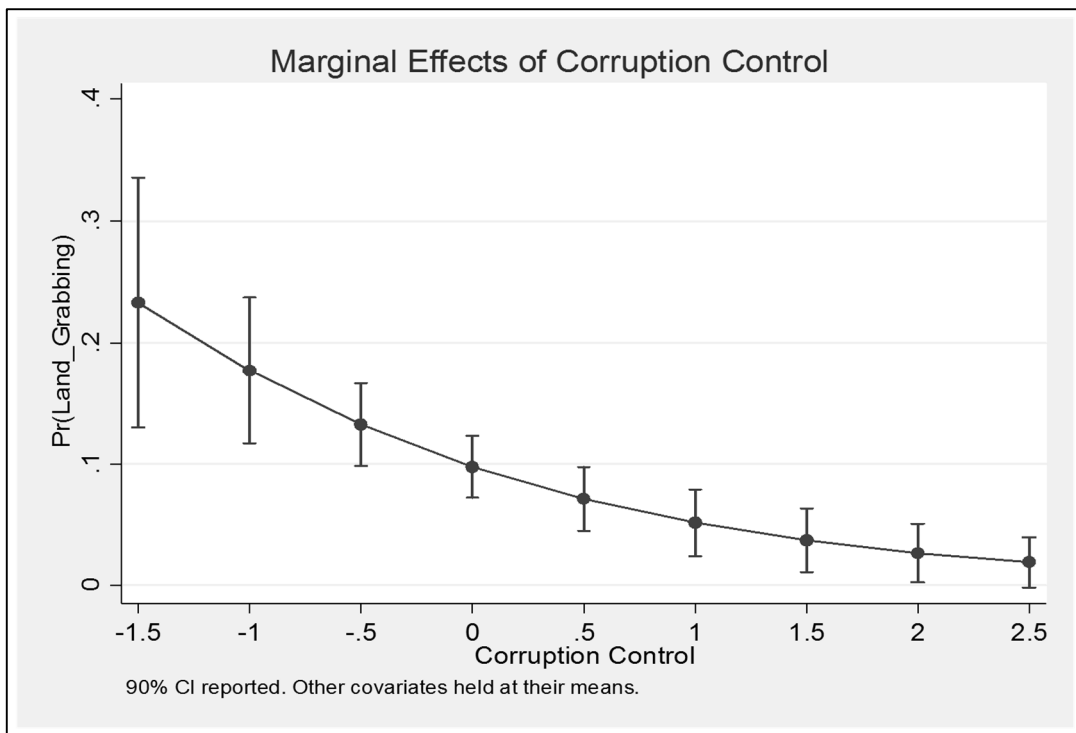**Figure 1: Marginal Effects of Corruption Control (Negative Binomial Regression)**

Figure 2: Marginal Effects of Corruption Control (Binary Logit Regression)

Variable	N*T	Mean	SD	Min.	Max.	Operationalization
Incidence of Land Deals (Binary)	1872	0.139	0.350	0	1	
Contract Size of Land Deals (Count)	1872	16105	108353	0	2280964	
Corruption Control	1860	-0.081	0.982	-1.816	2.586	
Globalization Index (b)	1860	56.710	17.074	22.728	92.503	Index capturing the economic, political and social dimensions of globalization (e.g., FDI flows, number of international treaties, tourism)
Per Capita Income (c)	1845	8.609	1.300	5.570	11.212	Real income per capita, logged
Economic Growth (c)	1689	2.592	4.661	-56.091	35.472	Growth rate of (logged) real per capita income
Arable Land (c)	1860	42.352	21.674	0.449	91.160	Ratio of land suitable for agriculture to total country size
Cereal Yield (c)	1860	7.755	0.755	4.701	11.215	Cereal yield (white, rice, maize etc.), as kilograms per hectare of harvested land, logged
Population Density (c)	1860	4.025	1.322	0.434	7.172	Population size to geographical country size, logged
Voice and Accountability (a)	1860	-0.098	0.977	-2.172	1.826	Index capturing the extent to which a country's citizens are able to participate in selecting their government, as well as freedom of expression and association, and a free media
Political Stability (a)	1860	-0.175	0.951	-3.185	1.668	Index measuring the likelihood that the government will be destabilized or overthrown by unconstitutional or violent means
Regulatory Quality (a)	1860	-0.024	0.932	-2.260	2.077	Index capturing the ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development
Rule of Law (a)	1860	-0.122	0.973	-2.114	1.999	Index measuring perceptions of the extent to which agents have confidence in and abide by the rules of society, and in particular the quality of contract enforcement, property rights, the police, and the courts, as well as the likelihood of crime and violence

Data Sources: (a) *World Governance Indicators* (http://info.worldbank.org/governance/wgi/index.aspx#home); (b) *KOF Index of Globalization* (http://globalization.kof.ethz.ch/); (c) *World Development Indicators* (http://data.worldbank.org/data-catalog/world-development-indicators).

Table 1: Summary Statistics and Variable Operationalization

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Corruption Control $_{t-1}$	-4.516	-3.981	-3.9414	-4.693	-5.107	-5.973		
	(0.710)***	(0.550)***	(0.678)***	(0.765)***	(0.697)***	(0.629)***		
Corruption Control (squared) $_{t-1}$		-2.952						
		(0.452)***						
Regulatory Quality $_{t-1}$							-4.90	
							(1.089)***	
Rule of Law $_{t-1}$								-3.539
								(0.833)***
Globalization $_{t-1}$	0.220	0.236	0.231	0.222	0.227	0.132	0.218	0.167
	(0.043)***	(0.037)***	(0.045)***	(0.045)***	(0.038)***	(0.030)***	(0.042)***	(0.044)***
GDP p.c. $_{t-1}$	-3.716	-4.280	-3.527	-3.776	-2.708		-3.639	-3.607
	(0.539)***	(0.595)***	(0.493)***	(0.562)***	(0.610)***		(0.464)***	(0.594)***
Economic Growth $_{t-1}$					0.337	0.430		
					(0.082)***	(0.068)***		
Arable Land $_{t-1}$	0.023	0.051	0.029	0.025	0.021	0.028	-0.026	-0.003
	(0.018)	(0.018)***	(0.019)	(0.019)	(0.024)	(0.025)	(0.019)	(0.019)
Agricultural Productivity $_{t-1}$	2.352	3.106	2.696	2.240	1.735	0.763	3.301	2.386
	(0.626)***	(0.582)***	(0.658)***	(0.670)***	(0.813)**	(0.825)	(0.667)***	(0.689)***
Population Density $_{t-1}$	-1.726	-3.149	-1.634	-1.755	-1.392	-0.511	-1.564	-1.816
	(0.449)***	(0.436)***	(0.478)***	(0.460)***	(0.508)***	(0.427)	(0.474)***	(0.592)***
Voice and Accountability $_{t-1}$			-1.495					
			(0.402)***					
Political Stability $_{t-1}$				0.255				
				(0.369)				
No. of Observations	1,694	1,694	1,694	1,694	1,538	1,538	1,694	1,694
Wald χ^2	264.57	389.68	361.39	271.15	264.80	475.74	205.92	295.45
(Prob. > χ^2)	(0.000)***	(0.000)***	(0.000)***	(0.000)***	(0.000)***	(0.000)***	(0.000)***	(0.000)***
Log-Pseudolikelihood	-3,790.01	-3,770.53	-3,785.06	-3,789.85	-3,647.60	-3,657.83	-3,800.22	-3,800.32

Notes: Constant not reported. All specifications include time-fixed effects (results not reported) and regional dummies for Latin America, Sub-Saharan Africa, the Middle East and Northern Africa, and the former Soviet Bloc countries (with the remaining Western countries as the reference group) (results not reported). Country-clustered robust standard errors in parentheses. *p<0.10, **p<0.05, ***p<0.01.

Table 2: Institutions and Land Deals (Negative Binomial Regression Results)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Corruption Control $_{t-1}$	-1.029	-1.238	-1.006	-0.864	-1.031	-1.319		
	(0.273)***	(0.467)***	(0.306)***	(0.303)***	(0.282)***	(0.274)***		
Corruption Control (squared) $_{t-1}$		-0.758						
		(0.332)**						
Regulatory Quality $_{t-1}$							-0.468	
							(0.367)	
Rule of Law $_{t-1}$								-0.807
								(0.311)***
Globalization $_{t-1}$	0.061	0.064	0.062	0.060	0.073	0.024	0.054	0.058
	(0.022)***	(0.023)***	(0.023)***	(0.023)***	(0.023)***	(0.017)	(0.024)**	(0.023)**
GDP p.c. $_{t-1}$	-0.960	-0.896	-0.963	-0.920	-1.054		-1.201	-1.042
	(0.287)***	(0.310)***	(0.282)***	(0.306)***	(0.291)***		(0.308)***	(0.304)***
Economic Growth $_{t-1}$					0.090	0.082		
					(0.025)***	(0.026)***		
Arable Land $_{t-1}$	-0.002	-0.004	-0.002	-0.002	-0.004	-0.003	-0.004	-0.003
	(0.009)	(0.010)	(0.009)	(0.009)	(0.009)	(0.009)	(0.008)	(0.008)
Agricultural Productivity $_{t-1}$	0.720	0.698	0.721	0.734	0.759	0.559	0.639	0.678
	(0.344)**	(0.364)*	(0.342)**	(0.340)**	(0.350)**	(0.318)*	(0.327)**	(0.330)**
Population Density $_{t-1}$	-0.251	-0.286	-0.251	-0.276	-0.271	-0.170	-0.215	-0.222
	(0.135)*	(0.152)*	(0.134)*	(0.136)**	(0.137)**	(0.120)	(0.120)	(0.126)*
Voice and Accountability $_{t-1}$			-0.035					
			(0.318)					
Political Stability $_{t-1}$				-0.235				
				(0.231)				
No. of Observations	1,694	1,694	1,694	1,694	1,538	1,538	1,694	1,694
Pseudo R^2	0.24	0.26	0.24	0.24	0.25	0.22	0.21	0.22
Wald χ^2	142.24	130.46	141.73	137.45	162.97	134.11	123.45	129.94
(Prob. > χ^2)	(0.000)***	(0.000)***	(0.000)***	(0.000)***	(0.000)***	(0.000)***	(0.000)***	(0.000)***
Log-Pseudolikelihood	-543.21	-526.89	-543.19	-541.29	-501.82	-523.72	-561.11	-552.05

Notes: Constant not reported. All specifications include time-fixed effects (results not reported) and regional dummies for Latin America, Sub-Saharan Africa, the Middle East and Northern Africa, and the former Soviet Bloc countries (with the remaining Western countries as the reference group) (results not reported). Country-clustered robust standard errors in parentheses. *$p<0.10$, **$p<0.05$, ***$p<0.01$.

Table 3: Institutions and Land Deals (Binary Logit Regression Results)

	Negative Binomial Regression	
	Δ Unit Change	Δ Std. Deviation Change
Percentage Change in Expected Count (Size) of Land Deals	-98.9%	-98.8%
	Binary Logit Regression	
	Δ Unit Change	Δ Std. Deviation Change
Percentage Change in the Odds of Observing a Land Deals	-64.3%	-63.7%

Notes: Specification (1) in Tables (2) (3) used to calculate changes in expected counts and odds, respectively. All other variables are held constant.

Table 4: Substantiveness of Estimated Effects of Corruption Control

Appendix A. Tobit Regression Results

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Corruption Control $_{t-1}$	-192,865.7 (68527.47)***	-205,146.9 (78,516,8)***	-199,663.6 (69,202.4)***	-155,034.5 (57,873.2)***	-197,694.3) (70,471.1)***	-238,531.4 (67,604.7)***		
Corruption Control (squared) $_{t-1}$		-71,024.2 (35,467.3)**						
Regulatory Quality $_{t-1}$							-135,664.1 (71,343.3)*	
Rule of Law $_{t-1}$								-169,773.5 (65,191.6)***
Globalization $_{t-1}$	9,449.0 (3,027.6)***	9,573.9 (3,019.7)***	9,215.5 (3,245.7)***	9,174.0 (3,230.9)***	11,226.4 (3,169.7)***	4,695.2 (2,667.0)*	9,894.7 (3,677.8)***	9,389.5 (3,146.1)***
GDP p.c. $_{t-1}$	-136,963.4 (42,702.3)***	-131,671.0 (43,236.0)***	-135,583.1 (41,128.4)***	-129,650.9 (46,334.3)***	-145,880.3 (43,474.6)***		-174,395.6 (44,973.6)***	-148,205.5 (43,317.4)***
Economic Growth $_{t-1}$					15,592.2 (4,962.1)***	15,268.9 (5,183.1)***		
Arable Land $_{t-1}$	-372.5 (1,410.3)	393.7 (1,509.2)	-363.7 (1,417.7)	-240.6 (1,394.4)	-625.4 (1,409.6)	-610.1 (1,411.0)	-840.9 (1,272.3)	606.9 (1,330.5)
Agricultural Productivity $_{t-1}$	87,553.1 (52,071.8)*	87,006.9 (53,415.1)	87,026.1 (51,470.2)*	92,873.8 (51,632.7)*	89,232.7 (54,759.0)	69,268.5 (53,890.1)	78,741.3 (48,674.5)	83,900.1 (50,257.8)*
Population Density $_{t-1}$	-54,295.6 (25,578.9)**	-61,338.1)**	-54,267.7 (25,592.0)**	-60,856.7 (27,392.1)**	-58,263.8 (26,467.6)**	-40,657.4 (23,733.1)*	-46,634.2 (23,067.7)**	-49,019.8 (23.895.6)**
Voice and Accountability $_{t-1}$			10,597.3 (52,584.7)					
Political Stability $_{t-1}$				-51,493.5 (47,302.6)				
No. of Observations	1,694	1,694	1,694	1,694	1,538	1,538	1,694	1,694
Pseudo R^2	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
Wald χ^2	2.07	2.39	2.01	1.89	2.06	1.50	1.92	2.01
(Prob. > χ^2)	(0.004)***	(0.000)***	(0.004)***	(0.009)***	(0.004)***	(0.08)*	(0.009)***	(0.004)***
Log-Pseudolikelihood	-3,820.32	-3,814.40	-3,820.25	-3,817.20	-3,670.13	-3,684.30	-3,837.60	-3,827.55

Notes: Constant not reported. All specifications include time-fixed effects (results not reported) and regional dummies for Latin America, Sub-Saharan Africa, the Middle East and Northern Africa, and the former Soviet Bloc countries (with the remaining Western countries as the reference group) (results not reported). Country-clustered robust standard errors in parentheses. *p<0.10, **p<0.05, ***p<0.01.

Supplementary Table 1: Institutions and Land Deals (Tobit Regression Results)

Appendix B. List of Countries

Albania	Djibouti	Lebanon	Rwanda
Algeria	Dominica	Lesotho	Sao Tome and Principe
Angola	Dominican Republic	Liberia	Saudi Arabia
Argentina	Ecuador	Libya	Senegal
Armenia	Egypt	Lithuania	Serbia
Australia	El Salvador	Luxembourg	Sierra Leone
Austria	Eritrea	Macedonia	Slovak Republic
Azerbaijan	Estonia	Madagascar	Slovenia
Bangladesh	Ethiopia	Malawi	South Africa
Barbados	Finland	Malaysia	Spain
Belarus	France	Mali	Sri Lanka
Belgium	Gabon	Malta	Sudan
Belize	Gambia	Mauretania	Suriname
Benin	Georgia	Mauritius	Swaziland
Bhutan	Germany	Mexico	Sweden
Bolivia	Ghana	Moldova	Switzerland
Bosnia and Herzegovina	Greece	Mongolia	Syria
Botswana	Guatemala	Montenegro	Tajikistan
Brazil	Guinea	Morocco	Tanzania
Bulgaria	Guinea-Bissau	Mozambique	Thailand
Burkina Faso	Guyana	Namibia	Togo
Burundi	Haiti	Nepal	Trinidad and Tobago
Cambodia	Honduras	Netherlands	Tunisia
Cameroon	Hungary	New Zealand	Turkey
Canada	India	Nicaragua	Turkmenistan
Cape Verde	Indonesia	Niger	Uganda
Central African Republic	Iran	Nigeria	Ukraine
Chad	Iraq	Norway	United Arab Emirates
Chile	Ireland	Oman	United Kingdom
China	Israel	Pakistan	United States
Colombia	Italy	Panama	Uruguay
Comoros	Japan	Papua New Guinea	Uzbekistan
Congo (DR)	Jordan	Paraguay	Venezuela
Congo (Republic)	Kazakhstan	Peru	Vietnam
Costa Rica	Kenya	Philippines	Yemen
Cote d'Ivoire	Korea (South)	Poland	Zambia
Croatia	Kuwait	Portugal	
Cyprus	Kyrgyz Republic	Qatar	
Czech Republic	Laos	Romania	
Denmark	Latvia	Russia	