

**Political Relations and Chinese Outbound Direct Investment:  
Evidence from Firm- and Dyad-Level Tests**

Quan Li  
Professor  
Department of Political Science  
Texas A&M University  
College Station, TX 77843-4348  
Tel: (979) 845-3023  
Fax: (979) 847-8924 (fax)  
Email: [quanli@tamu.edu](mailto:quanli@tamu.edu)

and

Guoyong Liang  
Economic Affairs Officer  
Investment and Enterprise Division, UNCTAD (and Shanghai Finance University)  
E-9104, Palais des Nations  
CH-1211 Geneva 10  
Switzerland  
Tel: +41-22-917-4875  
Fax: +41-22-917-0194  
Email: [guoyong.liang@unctad.org](mailto:guoyong.liang@unctad.org)

**Acknowledgement:** An earlier version of this paper was presented at the Conference on China and Global Governance in Bloomington, Indiana, March 22-24, 2012. We thank Scott Kennedy, Lorraine Eden, and conference participants for helpful comments and suggestions. Wendy Di Wang provided research assistance. Research for this paper was supported by a grant from the Research Center for Chinese Politics & Business (RCCPB) at Indiana University.

# **Political Relations and Chinese Outbound Direct Investment: Evidence from Firm- and Dyad-Level Tests**

## **Abstract**

Chinese outbound direct investment (ODI) has become a controversial important topic. We argue ignoring the role of interstate political relations is an important oversight in previous studies of the determinants of Chinese ODI. We expect China's political relations with hosts influence firm investment decisions and ODI flow patterns. We test the effects of interstate political relations on Chinese ODI at the firm level based on responses in a 2010 national survey and at the dyadic level based on Chinese ODI flows to 95 countries from 2003 to 2005. Empirical evidence supports our expectations. Our analysis helps resolve the puzzle of why Chinese ODI often goes to countries of high political risk. Scholars of Chinese ODI and FDI in general should note that international politics matters to firm investment decisions and the distribution of international production capital.

Key Words: Chinese outbound direct investment; political risk; interstate political relations; logit; OLS

The rapid rise of China has reshaped the landscape of global politics and world economy over the past several decades. As the country grew into the second largest economy and the largest trading nation in the world, China now is not only the largest recipient of foreign direct investment (FDI) among developing countries, but it also is a growingly important source of outbound direct investment (ODI). From a negligible amount in the beginning of the 1980s, China's outbound investment rose by 329% from US\$2,855 million in 2002 to \$1,2261 million in 2005, and jumped by another 461% from 2005 to \$6,8811 million in 2010 (MOFCOM, 2010).

To understand how Chinese investment helped reshape the world economy, particularly the pattern of international capital flows, scholars in economics, business, and political economy have sought to identify the drivers and determinants of Chinese outbound investment. Most studies in this area have focused on host country conditions (e.g., natural resources, market size, growth potential, factor costs, and institutional environment)<sup>1</sup>, institutional distance and Chinese firm attributes<sup>2</sup>, and China's growing wealth and investment-promotion policies<sup>3</sup>. While some

---

<sup>1</sup> For statistical studies of these factors, see, e.g., Buckley et al. (2007), Kolstad and Wiig (2012), and Cheung and Qian (2009).

<sup>2</sup> For example, Eden and Miller (2010) focus on how institutional distances between US and China in terms of regulatory, normative, and cognitive institutions create significant legal and non-legal costs for Chinese firms' entry into the US. Duanmu (2012) shows that firm heterogeneity in terms of ownership and manufacturing vs. trading subsidiaries behave differently in investment location choices of Chinese MNEs among 32 countries. In studying location decisions made by public listed Chinese firms during the period 2006–2008, Ramasamy et al. (2012) find that state-controlled and privately owned firms behave differently, with the former concentrating in countries of large natural resources and risky political environments and the latter being market seekers.

scholars (Wood and Brown, 2009) claim that it is impossible to understand Chinese outbound investment without understanding the external and domestic political pressures, extant studies have largely overlooked the potentially important role China's political relations with other countries could play. To the best of our knowledge, none of the statistical studies of Chinese outbound investment has estimated the effect of interstate relations on investment decisions and flows. Our paper fills this important gap.

We believe that understanding the effect of China's political relations with other countries on its outbound investment could be very important. One concern over Chinese investment is how much politics matters vis-a-vis market forces. Part of this concern rests with China's standing in global politics. Theoretically, because of China's important role in global politics, the significance of state-owned enterprises (SOEs) in Chinese overseas investment, and the extensive geographical spread of Chinese firms, it is especially important to take interstate political relations into account if we seek to better understand the determinants of Chinese outward FDI.

---

<sup>3</sup> For example, Morck et al. (2007) assess the connections between the government and businesses in China, confirming the important role of the government in shaping the landscape of Chinese outbound FDI. Gugler and Fetsherin (2010) link the motives of the Chinese government and investors, respectively, for different types of FDI, namely market-, efficiency-, natural resources- and strategic assets-seeking investments. Liang et al. (2011) reveals that the dominance of state ownership, combined with other unique industrial and corporate characteristics, leads to the specific strength of large Chinese overseas investors and some salient features of their internationalization strategies and practices; for instance, financial support from the state makes it feasible for Chinese companies to undertake extremely large cross-border M&As.

In addition, the role China's political relations play in determining its outbound investment may hold the key to one puzzle in the literature on Chinese investment. For instance, a number of empirical studies show that Chinese firms tend to invest in countries with high political risks (Buckley et al., 2007; Kolstad and Wiig, 2012), which contradicts the finding in most cross-national studies of FDI flows (Henisz, 2000; Jensen, 2003; Li and Resnick, 2003). It is conceivable that Chinese firms invest in politically risky host countries because these countries tend to have good political relations with China, providing preferential treatment and protection of Chinese investors. Therefore, establishing the impact of China's political relations theoretically and empirically may help resolve this important puzzle.

In our analysis, we build on a small but growing body of literature on how international politics influences foreign direct investment in international business and political science. This body of literature demonstrates that interstate political relations affect FDI flows through various causal mechanisms, such as influencing the perception, expectation, cost structure, and investment decisions of investing firms (Nigh, 1985; Li, 2006) and impacting relevant government regulatory policies (Li and Vaschilko, 2010). Empirical studies of multiple countries or a single country such as the U.S. support the theoretical arguments from this body of literature. We argue that the mechanisms identified in this body of literature also apply to Chinese outbound investment. All else equal, China's political relations with different host countries should influence Chinese firms' overseas investment decisions, and better political relations should lead to more investment flows.

One novelty of our analysis is that to test these expectations, we adopt a two-level empirical approach and conduct two tests, one at the firm level and the other at the dyadic level. The firm level analysis utilizes a representative 2010 national survey of Chinese firms that invest

abroad, and the dyadic level analysis studies Chinese outbound investment flows to some 95 countries during 2003-2005. These two interrelated and complementary tests allow us to undertake a systematic empirical assessment of the determinants of Chinese ODI.

The rest of the paper proceeds as follows. The first section examines various theoretical mechanisms that link interstate political relations to FDI. The next section discusses why China's political relations should affect its outbound investment. The following section conducts two empirical analyses, and the last section concludes the paper with a summary of our findings and their implications.

### **Political Relations and Foreign Direct Investment: A Review of Causal Mechanisms**

To explain the effect of interstate relations on Chinese ODI, we first set the analytical stage by briefly reviewing the theoretical mechanisms and related empirical evidence that link political relations and FDI in general. A small but growing body of literature studies the impact of interstate relations on foreign direct investment and identifies several causal mechanisms. It is worth noting that our analysis does not favor any particular explanation over the others, nor does it seek to test them against each other. Our goal is to show the mechanisms also apply to Chinese ODI and to test the overall effect of interstate relations on Chinese ODI.

One of the earliest arguments (Nigh 1985) posits that the political aspect of investment environment is driven by the subjective perception of investors from the home country. Since many home investors believe that host officials and citizens often fail to distinguish the interests of the government and investors from the same home country, investors themselves have to watch closely for interstate cooperation or conflict events that provide invaluable information about the business environment in a particular host country. As evidence, in a statistical analysis

of manufacturing FDI by US firms to 24 countries over 21 years, Nigh (1985) finds that interstate conflicts reduce US investment while interstate cooperation increases it.

A second argument (Li, 2006, 2008) considers how rational expectations and uncertainty on the part of foreign investors influence the ways in which interstate conflict in particular changes investment behaviors. Forward-looking investors constantly anticipate how political violence affects both the expected returns of their investments and hostile policy changes. When firms anticipate and internalize high risks, they may reduce investments *ex ante* before violence occurs. But because investors are not omniscient, they cannot assess perfectly the risk involved and can only make *ex post* adjustments when facing unexpected violent acts. For empirical evidence, in a country level analysis of 129 countries from 1976 to 1996, Li (2006) finds that unanticipated interstate war reduces a country's chance as an investment location, but has little effect on the amount of FDI inflow.

A third argument (Li and Vaschilko, 2010) considers how interstate military conflict and security alliances, as two central features of interstate security relations, often change both government policies toward international business and investor expectations of political risk. From the perspectives of both states and investors, military conflict should reduce bilateral investment whereas security alliances increase it. Their empirical analysis employs a gravity model of bilateral investment flows for 1,117 directed dyads among 58 countries from 1980 to 2000. Among 18 countries whose per capita real incomes remain consistently above 12,000 constant dollars, security factors do not affect bilateral investment; in the high-low income dyads, interstate conflict and security alliances significantly influence bilateral investment as expected.

Along a similar line of reasoning, Biglaiser and DeRouen (2007) argue that U.S. troops stationed in host countries signal positive relations and possibly alliances between the U.S. and

host countries, ensuring investment stability available to U.S. firms only. Their statistical analysis shows that the presence of U.S. troops encourages U.S. capital inflows to 126 developing countries between 1966 and 2002.

A fourth argument (Li, Vaschilko, and Vaschilko, 2010) considers the micro-foundation of the impact of interstate political relations. Since FDI crosses national borders and involves at least two political jurisdictions, bilateral political relations ought to influence the entry, exit and operation of international business. Using a firm-level theoretical model, they show that by changing the fixed and variable costs an affiliate faces in the host (such as cost of labor, raw materials, overhead, rent, property tax, insurance, and interest expenses), interstate cooperation lowers the productivity cutoff for firm entry from one home country but interstate conflict raises the productivity cutoff for firm entry from another home country. As such, even though the host-specific risk (such as host-specific property rights protection) remains constant, different political relation-specific risks cause varying investment flows from different home countries.

### **How Do Political Relations Affect Chinese Outbound Investment?**

Determinants of Chinese ODI include a wide range of factors at firm-, industry-, location-, country-, and dyadic-levels (e.g., Buckley et al., 2007; Cheung and Qian, 2009; Duanmu, 2012; Eden and Miller, 2010; Gugler and Fetsherin, 2010; Kolstad and Wiig, 2012; Liang et al., 2011; Morck et al., 2007; Ramasamy et al., 2012). These factors can be economic, cultural, demographical, and political. At the country- and dyadic-levels, the determinants include various home- and host-country characteristics and (geographical, culture and institutional) distances between home and host countries. Their political relations, however, have often been overlooked. The omission of this factor in empirical studies on FDI flows may lead to misleading conclusions,

particularly for large countries with strong political influence and a global presence. We argue that the causal mechanisms that link interstate relations to FDI reviewed in the previous section apply to Chinese ODI in particular.

China has become one of the major powers in global politics thanks to its growing economic strength and expanding global presence, its extensive diplomatic ties around the globe, as well as its strong position in global governance, as reflected for instance by its permanent membership on the UN Security Council. Furthermore, the country has been increasingly and more frequently involved in salient international cooperation efforts, conflicts, and crises. Anecdotal evidence illustrates that ODI from China has been facing various non-commercial obstacles in industrialized countries and political risks in low-income countries where political conflicts and regime changes often take place. Political obstacles to Chinese investments are often due to national security as well as employment concerns, targeting mainly large M&A deals in specific sensitive industries, such as oil and gas, infrastructure and high-tech industries (Eden and Miller, 2010; Liang, 2011). The failed CNOOC's bid for Unocal in 2005 is a case in point as national security concerns were widely invoked to motivate opposition. More recently, Huawei's attempts to acquire two U.S. companies (3Com in 2008 and 3Leaf in 2010) also failed due to objections based on national security concerns.

In another salient example, investments by Chinese oil firms in Libya currently became hostage to the changes in Libya and Libya-China relations. In 2011, China condemned the NATO bombing campaign against Gaddafi's forces and urged compromise between his government and rebels. Afterwards, Abdeljalil Mayouf, the information manager at Libyan rebel oil firm AGOCO, said, "We don't have a problem with western countries like Italians, French and UK companies. But we may have some political issues with Russia, China and Brazil," in

terms of continuing to honor pre-conflict contracts from countries that opposed the rebel campaign (Osgood, 2011).

A major share of FDI from China has been undertaken by SOEs, with a significant part in extractive industries (including oil, gas and metal mining), and such investment is often affected by political matters both at home and abroad. The state-owned nature endows these central SOEs with the “national champion” status and monopolistic power in their industries, which leads to their high financial returns. In addition, strong governmental support such as easy bank loans from the state-owned banking system provides central SOEs with a lot of financial slack to invest overseas. State ownership further enhances their motives to make proactive international investments (Liang et al., 2011). As a result, Chinese investments are sometimes considered to be motivated by political reasons in association with government agendas. Hence, host countries that have less favorable political relations with China are likely to guard against Chinese investments whereas other countries that have more favorable political relations with China are likely to welcome those investments.

Institutional theory suggests that firm behavior is deeply rooted in its environmental surroundings, and that firm behavior needs to be explained on a situational basis (e.g., Scott, 1995). Indeed, in the case of Chinese outbound investment, investors often have to consider interstate relations when conducting feasibility studies for their investment projects and assessing the related political risks. They are likely to benefit from privileged intergovernmental political relations with particular regimes, leading to more preferential policy treatments and probably lower productivity cutoff for firm entry relative to potential competitors from other home countries. Conversely, they may face additional barriers to enter countries with which China have tense economic, political, and security relations. Boisot and Meyer (2008) suggest that

Chinese investors can leverage their institutional arbitrage when firms pursue efficient institutions outside their home country. It seems that good political relations between home and host countries can be a basis for such an activity.

The discussions above lead to the following testable hypotheses at the firm- and dyad-levels.

H1. Chinese firms that consider interstate relations important are likely to modify their investment decisions based on such consideration.

H2. Chinese ODI tends to flow to host countries that initiate more cooperative actions toward China.

### **Two Empirical Tests**

Testing these expectations empirically is challenging. One main challenge is that the relevance of interstate relations--a dyadic level factor--is reflected by its influence on specific investment decisions at the firm level and by its impact on the aggregate pattern of capital flows. Hence, we believe empirical evidence from both levels of analysis helps ensure a coherent and convincing conclusion. This is consistent with the recent call by international business scholars (Hitt, et al., 2007; Luo and Tung, 2007) for a multilevel perspective when studying overseas investments by firms from emerging economies.

Therefore we adopt a two-level empirical approach to estimate and test the impact of political relations on Chinese outbound investment. More specifically, we conduct two interrelated and complementary empirical analyses: one at the firm level based on a 2010 national survey of Chinese firms and the other at the dyadic level for Chinese outbound investment flows to some 95 countries during 2003-2005. The firm level analysis focuses on the

relevance of interstate relations to Chinese firms' investment decisions in three regions (EU, other developed countries, or developing countries). The dyadic level analysis examines the nature and size of the effect of international conflict and cooperation events on Chinese outbound investment flows. Therefore, the two analyses provide complementary tests of whether political relations are important to Chinese outbound investments and how. To the extent that political relations matter, we anticipate that they should influence both firms' investment decisions and the patterns of investment flows.

### **Firm-Level Analysis of Investment Decisions**

Our firm level analysis employs data from a firm level survey, jointly designed and carried out by China Council for the Promotion of International Trade (CCPIT), European Commission's Directorate-General for Trade, and UNCTAD between December 2009 and March 2010. The survey intended to collect information about the overseas investments made by Chinese enterprises in 2009 and their future investment plans.<sup>4</sup> In the survey, 3,000 small and medium-sized Chinese firms with experience in import and export activities were contacted and 1,378 firms from agriculture, manufacturing, construction, and financial intermediaries in nearly 30 provinces responded, a 43% response rate. Among the respondent firms, 346 carried out overseas investments.<sup>5</sup> It is worth noting that the sample has good industrial and regional

---

<sup>4</sup> For detailed information on the survey design and sampling strategy, see CCPIT (2010).

<sup>5</sup> We code a firm as being involved in foreign direct investment as one whose response is not missing or zero to Question 2.1, "When did your company first invest overseas?", or whose response is not missing to the first item for Question 2.2, "In which countries do you have an overseas operation?". This coding

representation, with the caveat that firms in natural resources and extractive industries are not represented. Since Chinese firms in those industries tend to be state-owned enterprises and likely receive government support in dealing with host governments, our analysis based on a sample without such firms will most likely under-estimate the impact of Chinese political relations with other countries. Had those firms been surveyed and included in analysis, the effect of political relations should have been stronger than reported here.

The estimation sample covers these 346 firms. The dependent variables are based on Question 2.0, “Did your company have overseas operation in the following regions? (2.0.1) In EU 27 countries, (2.0.2) In Other Developed Countries, and (2.0.3) In Developing Countries”. The three dependent variables, Invest\_EU, Invest\_DC, and Invest\_LDC, are coded one if the respective responses to the three region choices are affirmative, and zero otherwise.

The main independent variable, *importance of interstate relations*, is based on one of the factors listed for the following question, “How would you rate the following pull factors from the destination country that have influenced your past overseas investment decisions?” The question is asked for each of the three regions (Section 2.9.1 for EU27 countries, Section 2.9.2 for other developed countries, and Section 2.9.3 for developing countries), respectively. One of those factors in the list is “Consideration of political influence and state-to-state relations: (1) Decisive, (2) Very Important, (3) Important, (4) Weakly Important, and (0) otherwise.” The key independent variable, *importance of interstate relations*, is coded one if a firm's response is decisive, very important, or important, and zero otherwise. This variable allows us to test whether the importance of interstate political relations significantly affects a Chinese firm's

---

criterion gives us 346 firms that engage in FDI, two more observations than that reported in the CCPIT (2010) report on the survey.

investment decision in a region after controlling for other pull and push considerations.

According to our argument, we expect the effect of the variable to be statistically different from zero, but that its sign could be positive (in cases of improving relations) or negative (in cases of worsening relations), an issue to be tested further at the aggregate flow level.

As a caveat, we use a dichotomous indicator for importance of interstate relations for two methodological reasons. First, because firms may interpret these categories differently (one firm's "decisive" response may actually be equivalent to someone else's "very important"), our strategy minimizes such measurement error. Second, our strategy also avoids the strong assumption that the effect of, say, a change from "weakly important" to "important" be identical to the effect of a change from "important" to "very important", etc.

Our statistical model controls for a variety of pull and push factors from the survey, including the self-reported importance of the following: fair and transparent regulatory environment, market potential, natural resources, skilled labor, low cost labor, access to advanced technology, access to international management practices, acquisition of established brands, access to public procurement markets, host preferential investment policies, trade barrier avoidance, Chinese firm's prior presence, easiness of foreign market entry, host public subsidies, local labor union, host market as target, and host as export platform. They are coded as dichotomous variables, with one indicating the relevant factor being important and zero otherwise.

Since the three dependent variables are dichotomous, we use logit for model estimation. We also estimate White robust standard errors to deal with heteroskedasticity. Finally, survey data that are self-reported, perception-based, and collected through the same questionnaire in the same time period with a cross-sectional design often confront the issue of common method

variance (CMV) (Chang, Witteloostuijn and Eden, 2010). The problem is often defined as “variance that is attributable to the measurement method rather than to the constructs the measures represent” (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003: 879), likely causing measurement errors and biased estimates with inflated or deflated observed relationships between constructs. Based on our tests, the impact of CMV on our analysis is most likely small.<sup>6</sup>

[Insert Table 1 here]

Table 1 reports the statistical results for three models for investing in EU, other developed countries, and developing countries, respectively. The models appear to have some but not highly serious collinearity that should cause concern.<sup>7</sup> The effect of interstate political relations is statistically significant for investment decisions across all three destination regions, as expected. Chinese firms that consider interstate relations important are likely to modify their investment decisions in EU, other developed economies, or developing countries, based on such consideration. Among all statistically significant variables for the three models, the effect of interstate relations is the second largest in size for the investing in EU model, and the third largest in size for the other two models.

---

<sup>6</sup> First, the dependent variables are behavioral (investing in a region or not) rather than perceptual, alleviating the potential impact of CMV (Podsakoff & Organ, 1986). Second, according to results (eigenvalues>1) from the unrotated principal component analysis, the number of factors necessary to account for the variance in the variables are 2, 3, and 2 for the Invest\_EU, Invest\_DC, and Invest\_LDC models, respectively. No single factor emerges for the variables of each of the three models. Third, the single-factor confirmatory factor analysis shows poor fit statistics (e.g., root mean squared error of approximation (RMSEA) is 0.075, 0.095, and 0.01, respectively, far above the 0.05 threshold).

<sup>7</sup> The VIF (variance inflation ratio) averages for the three models are 2.69, 2.65, and 2.50, respectively, although none of the individual VIFs exceeds 10.

The control variables produce some very interesting results based on the statistically significant findings. Overall, they show that the factors that motivate Chinese firms to invest in the three regions are quite heterogeneous. For the EU countries, a Chinese firm is more likely to invest there if it intends to target the host market, observes the presence of some other Chinese firm in the host, finds entering the EU market to be relatively easy, or considers trade barrier avoidance as being important. At the same time, it is less likely to invest in the EU region if it considers access to low cost labor or access to advanced technology to be important. Next, for other developed countries, a Chinese firm is more likely to invest there if it considers access to skilled labor to be important or seeks to use the host as an export platform. At the same time, it is less likely to invest there if it considers low cost labor or the impact of local labor union to be significant. Finally, for developing countries, a Chinese firm is more likely to invest there if it considers access to low cost labor, host public subsidies, or the host market potential to be important.

It is worth noting that the variable of fair and transparent regulatory environment has no statistical effect on the likelihood of investing in any of the three regions. To the extent that this variable measures some type of political risk in the host country, the finding suggests that Chinese firms are not sensitive to this type of political risk, a result largely consistent with previous findings in the literature.

Taken together, Chinese investors appear to be sensitive to the impact of interstate political relations, but far less concerned about the overall regulatory environment of the host country, regardless of it being a developed or developing economy. This pattern is certainly consistent with the notion that interstate relations could be leveraged to compensate for a less desirable host-specific environment.

## **Dyad-Level Analysis of Chinese Outbound Investment Flows**

The firm level analysis above demonstrates that interstate political relations significantly affect the investment decisions of Chinese firms in a national sample. But the analysis does not tell us whether an improvement (or a deterioration) in interstate relations increases (or decreases) Chinese investment in a host country or not. To answer this question, we carry out a dyadic level analysis of whether and how the conflict and cooperation activities initiated by a particular host toward China affect Chinese ODI flows into the country.

While the sample size varies depending on model specification and sample choice, the largest sample covers 95 host countries for Chinese ODI from 2003 to 2005. As noted in previous studies, earlier Chinese ODI data suffered various measurement problems. But the Chinese Ministry of Commerce (MOFCOM)'s ODI data since 2002 has been collected in accordance with the OECD definitions and IMF Balance of Payments guidelines. Hence we use the MOFCOM data on Chinese ODI in millions of US dollars since 2002 from MOFCOM's 2009 *Statistical Bulletin of China's Outward Foreign Direct Investment*. To purge the effect of inflation, we transform the data into 2000 constant dollars. Hence, the dependent variable is real ODI flows from China into a host country in a year, in millions of 2000 constant dollars.

The key independent variable is a measure of the host's net cooperation actions toward China. This allows us to assess how Chinese investors react to host actions and policies toward China specifically. We use data on actual events the ODI recipient country initiated toward China to construct a measure of the host's net cooperation stance toward China. The data are from King and Lowe (2003). The source of the data are news reports from Reuters in 1990-2004, the Reuters Business Briefings (RBB) (1990-May 2003), the Reuters Factiva's World News

(June 22, 2003 - September 9, 2003), and Reuters (World) news (September 10, 2003 – 2004). Each individual event is assigned a weight according to the Goldstein scale, ranging from -10 (intense international conflict) to 8.3 (intense international cooperation) (Goldstein, 1992). Then all cooperation events, such as aid, visit, apology, praise, endorsement, etc., are summed together into an annual cooperation indicator, and all conflict events, such as military attack, expelling, rejection, criticism, etc., are summed together into an annual conflict measure in absolute value. Since Chinese investors care about the host's net cooperation status toward China because of the policy implications, we use the difference between the sum of cooperation events and the sum of conflict events to generate such an indicator. The variable ranges from -14.4 to 201.7 within the sample. Higher values indicate greater net host cooperation toward China.

We also include various control variables that are common in the literature on Chinese ODI. GDP is the host country's real GDP in thousands of 2000 constant dollars, logged. This variable captures the market size of the host, encouraging market-seeking investments. Growth is the host country's GDP annual growth, which also indicates the market potential of the host economy. Mineral export measures the host's ores and metals exports as a percent of its merchandise exports, whereas fuel exports indicates the host's mineral fuel export as a percent of its merchandise exports. Both variables reflect the natural resource endowments in the host, which should encourage resource-seeking investments. All economic data are from the World Development Indicators (2011).

Distance is the log distance between China and the host country in terms of bilateral distances between the biggest cities of those two countries, with the inter-city distances being weighted by the share of the city in the overall country's population. Colony is a dummy variable coded one if China and a host country ever had a colonial relationship before. Distance is likely

to affect direct investments negatively whereas colonial ties may increase investments. Data on distance and colony are from CEPII database (2011).

Finally, we also include an indicator of property rights protection in host countries because cross-national studies of FDI flows have widely demonstrated its significant positive effect on investment (e.g., Henisz, 2000; Jensen, 2003; Li and Resnick, 2003). However, as noted, empirical studies of Chinese ODI have provided contradictory evidence on this relationship. For example, statistical findings (Buckley et al., 2007; Kolstad and Wiig, 2012) show Chinese FDI tends to go to countries with bad institutions (high political risk) or that host institutional quality has no effect (Cheung and Qian, 2009). In a recent study of MNE investment in the electric power generation industry, Holburn and Zelner (2010) argues that home countries with weaker institutional constraints on leaders or stronger redistributive pressures often are less sensitive to host country policy risks; in fact they may even seek to invest in riskier hosts in order to leverage their political capabilities. To the extent this could explain why China ODI goes to politically riskier hosts, we need to control for host property rights protection in our model.

Our measure is based on four relevant indicators from the Political Risk Service's Inter-country Risk Guide, including contract viability, corruption, law and order, and bureaucratic quality. All four indicators should measure and correlate with the latent level of property rights protection in the host. Consistent with the expectation, factor analysis of these four variables indicate that there is only one underlying dimension among them, which has an eigenvalue of 2.87 whereas all other factor loadings have eigenvalues way below the threshold of one. Hence, we use this factor loading as a measure of the latent level of host property rights protection.

Our estimation involves several technical issues. First, we estimate the models using OLS regression with Huber-White robust standard errors clustered over countries. These estimated

standard errors are robust to both heteroskedasticity and to a general type of serial correlation (Williams, 2000). Second, to mitigate the potential risk of reverse causality, we lag all the right-hand side variables one year behind the dependent variable, as is done in many studies.

Third, Blonigen and Wang (2004) argue that to avoid spurious findings, it is important to run separate analyses for highly developed and less developed economies. Hence, like in Li and Vaschilko (2010), we estimate models for three samples, one for all countries in the sample, a second one for the high income hosts with at least \$12000 real GDP per capita, and a third one for the low income hosts with real GDP per capita below \$12,000.

For robustness check, we also include the lagged dependent variable in some of the models for two reasons. One reason is that foreign direct investments often exhibit inertia and path dependence, which the lagged dependent variable helps control for. Another reason is that it controls for the impact of various other unobserved relevant variables not present in the model.

Table 2 presents the results from nine regression models of Chinese outbound investment flows. Models 1-3<sup>8</sup> include the baseline model specification for three samples (all countries, low income, and high income), respectively. Models 4-6 are models 1-3 plus two additional variables (fuel exports and mineral exports). Models 7-9 are models 4-6 plus the lagged dependent variable.

[Insert Table 2 here]

The results in Table 2 provide strong support for our theoretical expectation of the impact of interstate political relations on Chinese ODI. Across all nine models, interstate political relations have a positive effect as expected. And the effect is statistically significant in all but

---

<sup>8</sup> Model 1 does not appear to suffer from collinearity. The variance inflation ratio (VIF) statistics ranges between 1.05 and 1.83 for the variables in model 1 of Table 2.

model 6. Even for model 6, the p-value is not too far away from the significance level. These results suggest that Chinese ODI is more likely to flow to host countries that take a more cooperative stance toward China. The findings provide consistent and complementary support for the firm level analysis in the previous section.<sup>9</sup>

The size of effect of the net cooperation variable in Table 2 is substantively important. The size of effect ranges from 0.433 to 0.875 across the four models based on the all countries sample. Take the conservative estimate from model 1 for example. A one-unit improvement in the host's net cooperation actions toward China is associated with an increase in Chinese ODI by 0.437 million constant dollars. Based on the by-country averages in Appendix 2, this is roughly equivalent to the rise in Chinese ODI from the level into Angola close to the level into Honduras. Now, a one-standard deviation improvement in political relations (18) is associated with a rise in investment in the country by 7.794 millions of constant dollars, which is about 40% of one standard deviation of the dependent variable in the sample. This is roughly equivalent to the rise in Chinese ODI from its level into Botswana to the level into Mexico.

This estimate on the size of effect represents the immediate impact of the net host cooperation variable. It does not take into account the possibility that the impact of political relations from previous periods is absorbed into the effect of the lagged ODI variable, which is also on the right-hand side for some models in Table 2. So the host's net cooperation actions

---

<sup>9</sup> In an additional robustness test, we estimate model 1 adding both the lagged dependent variable and the host country fixed effects dummies. The effects of the control variables largely wash out because they tend to be host country specific in a very short panel with only two years (2004, 2005). It is worth noting that even in this highly taxing and conservative model, the effect of the host net cooperation variable remains positive and statistically significant.

affect Chinese ODI via its direct effect and could continue to affect it in the next period via the lagged ODI variable. The latter long run effect can be calculated through the following expression:  $[\text{coefficient of host net cooperation}/(1-\text{coefficient of lagged ODI})]$ \*change in host net cooperation. Based on the estimates from model 7, the long run effect of a one-unit improvement in the host's net cooperation toward China amounts to 33 millions of constant dollars, which is larger than the difference between Chinese ODI into Russia and that into UK. This is a rather large substantive effect.

The results for the control variables are largely consistent with previous findings in the literature on Chinese ODI. The effect of the property rights variable is statistically insignificant in all but model 2, in which its effect is negative and significant. The level of property rights protection in the host has little effect on Chinese overseas investments in the country. And according to model 2, Chinese investments may even flow to countries with worse property rights protection. These results contradict the findings from various cross-national studies of FDI flows. But they are consistent with the findings of previous empirical studies of Chinese ODI flows, with the argument in Holburn and Zelner (2010) that such firms may have strong political capabilities due to prior experiences in weak institutional environments, and with the finding in our firm-level analysis regarding the insignificant role of fair and transparent regulatory environment.

Notably, these results help explain the puzzle in the previous literature that Chinese investors seem attracted to countries with high political risk. They are consistent with the possibility that if Chinese investors have to invest in countries with poor institutional quality, they tend to go to those with which China has better political relations. To further examine the possibility, we calculate the correlation between property rights and net cooperation actions

toward China, which is -0.083 for the low-income sample in model 2, but +0.19 for the high-income sample in model 3. So within the low-income sample, the hosts with higher political risks tend to initiate more cooperative actions toward China. This compensation effect does not appear to be so in the high-income sample. The by-country averages for real ODI flows, property rights, and the host's net cooperation actions toward China in Appendix 2 provide various cases that are consistent with these patterns. Various countries fit this pattern. Pakistan, Russia, Brazil, Nigeria, Yemen, and Algeria, to name just a few, all have relatively low levels of property rights protection, but their net cooperation actions toward China are positive and relatively high. So despite their poor property rights protection, Chinese ODI into these countries is rather large.

In terms of other control variables, the logged GDP has a statistically significant positive effect in four of the nine models, indicating some evidence that Chinese investments tend to flow to hosts with larger markets. The effects of host growth and geographical distance between China and the host are largely statistically insignificant across the eleven models. In contrast, the colonial tie variable has a statistically significant positive effect in all models that include it. Note that the variable's effect is not estimable in the high-income countries samples. Chinese ODI is more likely to flow to those host countries with which China used to have a colonial relationship in the past.

The two natural resources variables, fuel export and mineral export, both have positive effects as expected. Their effects are statistically significant or close to being significant in all models. Chinese overseas investments are often resource seeking, going into countries with rich oil and mineral resources. Finally, the lagged dependent variable has statistically significant positive effect in all models with it. Chinese foreign investments exhibit inertia and path dependence.

## Conclusion

We argue that ignoring the role of interstate political relations in Chinese outbound investment is an important oversight in the literature on the determinants of Chinese ODI. Building on the literature on international politics and FDI in general, we identify several mechanisms for why China's political relations with potential hosts significantly influence firm investment decisions and ODI flow patterns.

To test the effects of interstate political relations on Chinese ODI, we conduct two complementary empirical tests: one at the firm level and the other at the dyadic level. The firm-level analysis based on a national survey shows that Chinese firms that consider interstate relations important are likely to modify their investment decisions based on such consideration. The dyadic-level analysis tests whether the host's net cooperation actions toward China influence the flow patterns of Chinese ODI. The results suggest that Chinese ODI tends to flow to host countries with which the Chinese government has better political relations. And the size of effect on ODI flows is substantial. The findings of the two-level empirical tests provide consistent and complementary support for our theoretical expectation regarding the effect of interstate relations on China's outbound investment.

Considering the role of political relations not only identifies an important determinant of Chinese ODI but also helps account for a puzzle in previous studies of Chinese ODI. As noted, contrary to conventional wisdom, Chinese ODI is found to often flow to countries with relatively high political risk. Incorporating the role of political relations resolves this puzzle. At least among low income countries, if they have to choose between risky hosts, Chinese investors tend to go to those with which China has better political relations such that their investments could be

better treated and protected. Therefore, Chinese investors go to those environments, not because of their risk acceptant preference, but rather because of the risk-reduction effect of good political relations. When it comes to minimizing risk and maximizing returns, Chinese investors are no different from those from other home countries. Scholars of Chinese ODI as well as FDI in general should note that international politics does matter to firm investment decisions and the distribution of international production capital.

Our findings suggest several implications for managers who seek to improve the effectiveness of their international operations. First, MNE managers should broaden the scope of their political risk assessment in the process of international investment. Traditionally managers have focused on the host-specific risk conditions. We show that the home-host political relations are equally important. Chinese firms that plan to invest abroad should consider the quality of the political relations between China and the potential host. As we show, many Chinese MNEs have incorporated such relation-specific factor into their decision calculus. Ignoring this factor either imposes unnecessary risk (when political relations are bad) or causes the loss of unexplored benefits (when political relations are good). Second, firm managers may leverage good host-home relations to mitigate political risks in some host countries. Chinese MNEs appear to reduce the deleterious impact of high political risks in host countries by exploiting the benefit of good China-host political relations. This possibility may enlarge the choice set of investment destinations for managers and offers one more means to manage political risk in the host. Third, for local companies in the host country, the improvement of political relations with a home country can improve the host's attractiveness as an investment destination and increase their chances to partner with foreign MNEs.

## References

- [Blonigen, B. A., and Wang, M. \(2004\).](#) “Inappropriate pooling of wealthy and poor countries in empirical FDI studies. NBER Working Paper #10378.
- Biglaiser, Glen, and DeRouen, Karl. (2007). Following the Flag: Troop Deployment and US Foreign Direct Investment. *International Studies Quarterly*.
- Boisot, M. and Meyer, M.W. (2008). Which way through the open door? Reflections on the internationalization of Chinese firms. *Management and Organization Review*, 4(3): 349-366.
- Buckley, P. J., Clegg, L. J., Cross, A. R., Liu, X., Voss, H., and Zheng, P. (2007). The determinants of Chinese outward foreign direct investment. *Journal of International Business Studies* 38: 499-518.
- Chang, Sea-Jin, Arjen van Witteloostuijn and Lorraine Eden. (2010). From the Editors: Common method variance in international business research. *Journal of International Business Studies* 41: 178–184.
- Cheung, Yin-Wong and Qian, Xingwang. (2009). Empirics of China's Outward Direct Investment. *Pacific Economic Review* 14(3): 1468-0106.
- China Council for the Promotion of International Trade. (2010). *Survey on Current Conditions and Intention of Outbound Investment by Chinese Enterprises*.
- Duanmu, J. L. (2012). Firm heterogeneity and location choice of Chinese Multinational Enterprises (MNEs). *Journal of World Business* 47(1): 64 - 72.
- Eden, Lorraine and Stewart R. Miller. (2010). Revisiting liability of Foreignness: sociopolitical costs facing Chinese multinationals in the United States, in *Investing in the United States: Is the US Ready for FDI from China?*, edited by Karl P. Sauvant. Edward Elgar Publishing.
- Goldstein, Joshua. (1992). A Conflict-Cooperation Scale for WEIS Events Data. *Journal of Conflict Resolution* 36: 369-385,
- Gugler, Philippe and Fetscherin, M. (2010). The role and importance of the Chinese government for Chinese outward foreign direct investments. *AIB Insights*, Vol. 10, No.4.
- Henisz, W. J. (2000). The institutional environment for multinational investment. *Journal of Law, Economics and Organization* 16(2): 334-364.
- Hitt, M. A. , Beamish, P. W., Jackson, S. E., & Mathieu, J. E. (2007). Building theoretical and empirical bridges across level: multilevel research in management. *Academy of Management Journal* 50(6): 1385–1399.
- Holburn, Guy L. F. and Bennet A. Zelner. (2010). Political Capabilities, Policy Risk, and

International Investment Strategy: Evidence from the Global Electric Power Generation Industry. *Strategic Management Journal* 31: 1290–1315

Jensen, N. (2003). Democratic governance and multinational corporations: the political economy of foreign direct investment. *International Organization* 57(3): 587-616.

King, Gary and Will Lowe. (2003). An Automated Information Extraction Tool for International Conflict Data with Performance as Good as Human Coders: A Rare Events Evaluation Design. *International Organization* 57: 617-642.

Kolstad, I. and Wiig, A. (2012). What determines Chinese outward FDI? *Journal of World Business* 47(1): 26–34.

Li, Quan and Adam Resnick. (2003). Reversal of Fortunes: Democracy, Property Rights and Foreign Direct Investment Inflows in Developing Countries. *International Organization* 57(1): 175-211.

Li, Quan. (2006). Political Violence and Foreign Direct Investment, in Michele Fratianni and Alan M. Rugman (Eds.), *Research in Global Strategic Management*, Volume 12, *Regional Economic Integration* (pp. 225-49). Oxford: Elsevier Ltd.

Li, Quan. 2008. Foreign Direct Investment and Interstate Military Conflict. *Journal of International Affairs* 62(1): 53-66.

Li, Quan and Tatiana Vashchilko. (2010). Dyadic Military Conflict, Security Alliances, and Bilateral FDI Flows. *Journal of International Business Studies* 41(5): 765-782.

Li, Quan, Tatiana Vashchilko and Aleksandr Vashchilko. (2010). Interstate Political Relations and Bilateral FDI Flows, International Political Economy Society 2010 Meeting, Harvard University, 2010.

Liang, Guoyong, Wu, J. and Cheng, S. (2011). China Inc. goes global: examining the motivations and strategies of the largest investors, the fifth China Goes Global Conference, Harvard University, 2011.

Liang, Guoyong. (2011). Chinese outward FDI faces increasing political obstacles and risks, Caixin Summit, Beijing, 2 November 2011.

Luo, Y., and R. L. Tung. (2007). International expansion of emerging market enterprises: a springboard perspective. *Journal of International Business Studies*, 38: 481-498.

MOFCOM. (2009, 2010). *Statistical Bulletin of China's Outward Foreign Direct Investment*. The Ministry of Commerce (MOFCOM) of China.

Morck, R., Yeung, B., and Zhao, M. (2007). Perspectives on China's outward foreign direct investment. *Journal of International Business Studies*, 39:337–350.

Nigh, Douglas. (1985). The Effect of Political Events on United States Direct Foreign Investment: A Pooled Time-Series Cross-Sectional Analysis. *Journal of International Business Studies* 16(1):1-17.

Osgood, Patrick. (Aug 23, 2011). Libya: China pays price for lack of rebel support <http://www.arabianoilandgas.com/article-9368-libya-china-pays-price-for-lack-of-rebel-support/>

Podsakoff, P. M., & Organ, D. W. (1986). Self-reports in organizational research: Problems and prospects. *Journal of Management* 12(4): 531–544.

Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology* 88(5): 879–903.

Ramasamy, Bala, Matthew Yeung, & Sylvie Laforet. (2012). China's outward foreign direct investment: Location choice and firm ownership. *Journal of World Business* 47(1): 17–25.

Scott, W. R. (1995). *Institutions and Organizations*. Thousand Oaks, CA: Sage.

Williams, R. L. (2000). A Note on Robust Variance Estimation for Cluster-Correlated Data. *Biometrics* 56: 645-46.

World Bank. (2011). World Bank development indicators online database. Washington, D.C.: World Bank.

Wood, Peter and Kerry Brown. (2009). *China ODI: Buying into the Global Economy*. Exceptional Resources Group.

**Table 1 Firm Level Analysis of Investment Decisions in Three Destination Regions**

	<b>Invest_EU</b>	<b>Invest_ODC</b>	<b>Invest_LDC</b>
Importance of interstate relations	-2.847*** (2.89)	1.393** (2.19)	-1.406** (2.01)
Importance of regulatory environment	1.145 (1.17)	-0.620 (0.92)	0.141 (0.20)
Importance of market potential	1.449 (1.59)	0.680 (1.04)	1.331** (2.30)
Importance of host market as target	3.793** (2.33)	0.343 (0.50)	-0.646 (1.14)
Importance of export platform	1.005 (1.58)	0.946** (2.10)	-0.683 (0.90)
Importance of natural resources	0.391 (0.41)	0.396 (0.69)	0.920 (1.13)
Importance of skilled labor	-2.345 (1.60)	1.335* (1.70)	-0.324 (0.57)
Importance of low cost labor	-2.392*** (2.67)	-1.412* (1.88)	1.573*** (2.68)
Importance of technology	-1.598* (1.83)	0.152 (0.22)	-0.429 (0.59)
Importance of management practices	-1.054 (1.13)	1.486 (1.39)	-0.418 (0.62)
Importance of established brands	-0.787 (0.94)	-1.137 (1.41)	0.385 (0.55)
Importance of public procurement	1.134 (1.63)	-0.666 (1.04)	-0.580 (0.80)
Importance of host preferential policy	-0.716 (0.85)	-1.271 (1.64)	0.653 (1.00)
Importance of trade barrier avoidance	1.993** (2.52)	1.276 (1.29)	-0.043 (0.07)
Importance of Chinese firm presence	2.733** (2.23)	0.156 (0.21)	0.256 (0.48)
Importance of foreign market entry	2.123** (2.31)	-0.745 (0.93)	0.120 (0.19)
Importance of host public subsidies	0.518 (0.61)	0.765 (1.15)	1.415** (2.25)
Importance of local labor union	-1.396 (1.29)	-1.862** (2.53)	-0.312 (0.50)
Constant	-0.574 (1.01)	1.262** (2.41)	0.523 (1.40)
Observations	132	204	206

Robust z statistics in parentheses

Two-tailed test: \* significant at 10%; \*\* significant at 5%; \*\*\* significant at 1%

**Table 2 Dyadic Level Analysis of Determinants of Chinese ODI Flows**

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	all	low-inc	high-inc	all	low-inc	high-inc	All	low-inc	high-inc
Host net cooperation	0.437*** (6.52)	0.377* (1.69)	0.301* (1.92)	0.433*** (6.42)	0.387* (1.90)	0.254 (1.60)	0.726*** (3.58)	0.544*** (7.26)	0.847** (2.50)
Property rights	1.170 (0.38)	-4.671** (2.19)	9.728 (0.93)	3.185 (0.93)	-1.492 (0.75)	15.168 (1.56)	4.220 (1.26)	3.426 (1.08)	-7.782 (0.63)
GDP	2.422* (1.81)	1.678** (2.52)	5.197 (1.01)	2.702 (1.65)	1.385* (1.81)	9.424 (1.49)	-0.388 (0.44)	-0.367 (0.44)	5.889** (2.70)
Growth	0.305 (1.36)	0.308* (1.76)	1.746 (1.10)	0.391 (1.31)	0.325* (1.96)	0.757 (0.58)	0.182 (0.40)	0.063 (0.23)	3.015 (1.03)
Distance	2.528 (0.64)	-1.750 (0.56)	18.519 (1.61)	1.699 (0.42)	-2.943 (1.02)	14.874 (1.03)	2.396 (0.66)	-2.894 (0.88)	11.306 (0.79)
Colonial tie	33.526*** (3.65)	25.779*** (4.15)		29.881*** (3.09)	21.483*** (3.73)		18.815* (1.84)	18.085** (2.16)	
Fuel export				0.129** (2.25)	0.123** (2.48)	0.318 (1.08)	0.210*** (2.87)	0.216*** (2.87)	0.238 (1.58)
Mineral export				0.162 (1.53)	0.092** (2.42)	3.597** (2.33)	0.148 (1.64)	0.108* (1.96)	6.187*** (3.62)
Lagged FDI							0.978*** (4.12)	0.573*** (4.42)	0.679** (2.49)
Constant	-59.21 (1.12)	-10.34 (0.31)	-266.4 (1.40)	-61.60 (1.10)	2.70 (0.10)	-339.1 (1.40)	-18.35 (0.46)	32.35 (0.87)	-230.7 (1.47)
Observations	219	168	51	198	150	48	108	86	22
Countries	95	70	25	88	64	24	66	51	15
R-squared	0.21	0.22	0.24	0.24	0.28	0.40	0.66	0.43	0.85

Robust t statistics in parentheses

Two-tailed test: \* significant at 10%; \*\* significant at 5%; \*\*\* significant at 1%

### Appendix 1 Summary Statistics for Variables in Model 1 of Table 2

<b>Variable</b>	<b>N</b>	<b>mean</b>	<b>sd</b>	<b>Min</b>	<b>max</b>
Investment flows	219	10.086	24.832	-7.132	205.677
Host net cooperation	219	5.400	17.984	-14.400	201.700
Property rights	219	0.012	0.916	-1.711	2.073
GDP	219	17.492	2.063	12.927	23.105
Growth	219	4.284	4.572	-31.300	18.287
Distance	219	9.016	0.531	7.400	9.857
Colonial ties	219	0.014	0.117	0.000	1.000

**Appendix 2 By-Country Averages for Real ODI Flows, Property Rights and Net Cooperative Actions toward China**

<b>Country</b>	<b>Real ODI</b>	<b>Property rights</b>	<b>Net Coop Actions to China</b>
Algeria	29.301	-0.76	2.90
Angola	0.254	-0.64	0.00
Argentina	0.985	-0.43	-0.70
Australia	104.827	1.79	12.40
Austria	0.377	1.95	0.00
Azerbaijan	0.257	-0.54	2.00
Bahamas	19.774	1.05	0.00
Bahrain	0.055	0.44	0.00
Bangladesh	0.728	-1.18	5.70
Belgium	0.164	1.29	1.10
Bolivia	0.071	-0.57	0.00
Botswana	1.425	0.42	0.33
Brazil	8.523	-0.13	14.93
Brunei	1.331	1.04	0.00
Bulgaria	0.325	0.03	0.00
Cameroon	0.257	-0.91	0.63
Canada	8.865	1.77	1.77
Chile	0.763	0.83	0.00
Colombia	2.502	-0.51	0.00
Congo	3.831	-1.04	0.00
Cuba	1.375	-0.34	4.75
Czech Republic	0.422	0.83	0.00
Denmark	31.250	1.87	0.00
Ecuador	2.859	-0.31	0.93
Egypt	6.344	-0.49	0.63
Ethiopia	1.897	-0.44	0.00
France	4.938	0.86	26.65
Gambia	0.038	0.09	0.00
Ghana	1.772	-0.37	0.50
Greece	0.183	0.23	1.00
Guinea	9.622	-0.39	0.00
Honduras	0.694	-0.54	0.00
Hungary	0.602	1.03	0.00
India	3.455	0.13	17.47
Indonesia	30.854	-1.02	11.67
Iran	11.250	-0.57	6.07
Ireland	0.132	1.56	0.00
Israel	2.812	0.83	-2.65
Italy	1.558	0.35	2.50
Japan	12.068	1.36	37.20
Jordan	0.896	0.09	5.60

Kazakhstan	29.704	-0.49	3.13
Kenya	1.658	-0.38	3.73
Kuwait	1.549	0.04	0.00
Latvia	1.489	0.57	3.40
Lebanon	0.018	-0.62	0.00
Liberia	2.861	-1.54	-2.53
Libya	0.124	-0.64	1.77
Madagascar	4.423	-0.31	0.00
Malaysia	19.875	0.23	6.97
Mali	5.099	-0.86	0.00
Malta	0.339	0.96	0.00
Mexico	9.340	0.17	1.27
Mongolia	29.142	-0.17	0.00
Morocco	0.861	0.56	1.27
Mozambique	1.580	-0.77	0.00
Namibia	0.248	0.24	0.00
Netherlands	2.982	1.95	18.45
New Zealand	0.493	2.07	3.80
Niger	3.256	-1.29	0.00
Nigeria	37.338	-1.33	3.27
Oman	4.631	0.56	0.00
Pakistan	4.743	-0.63	16.07
Panama	2.506	-0.23	0.00
Papua New Guinea	2.654	-0.82	0.00
Peru	0.268	-0.08	-3.27
Philippines	1.648	-0.21	11.73
Poland	0.776	0.51	0.50
Qatar	0.838	0.24	0.00
Russia	49.864	-0.83	52.50
Saudi Arabia	7.027	0.24	1.33
Senegal	0.613	-0.71	0.00
Sierra Leone	2.931	-0.83	0.00
Singapore	19.665	1.68	11.83
South Africa	22.265	-0.29	2.20
Spain	1.558	1.26	3.00
Sri Lanka	0.090	0.09	0.93
Suriname	1.369	-0.70	0.00
Sweden	1.290	2.07	8.30
Switzerland	0.532	1.42	5.20
Syria	0.177	-0.64	1.00
Tanzania	1.168	-0.44	0.00
Thailand	26.575	-0.49	-0.77
Togo	0.666	-1.24	0.00
Tunisia	0.202	0.04	0.00

---

Turkey	1.034	0.05	-0.37
Uganda	0.410	-0.17	0.00
UK	14.465	1.82	37.30
Ukraine	0.578	-0.69	0.00
UAE	13.187	0.31	0.00
Uruguay	0.518	-0.01	0.00
USA	125.642	1.57	108.80
Venezuela	5.567	-1.43	1.07
Yemen	11.456	-1.04	1.93
Zambia	5.403	-0.35	0.00

---