Bondholder Wealth Effects in Joint Ventures and Strategic Alliances

Around the World

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Abstract

This paper examines the bondholder wealth effects in international collaborations in the form of joint ventures and strategic alliances. Based on a sample of 3,070 Joint venture and strategic alliance event-firm observations from 2009 to 2015, we find positive and significant abnormal returns for bondholders. The average three-month abnormal bond return is 1.53% for foreign participants and 1.38% for U.S. participants. We focus on the wealth effects for the foreign bondholders and find that country level governance and national culture are dominant drivers of bondholder gain. Results of various robustness tests and subsample analyses confirm the main findings. Additionally, we find little evidence for a wealth transfer between stockholders and bondholders of the foreign participants. However, when a joint venture or strategic alliance leads to a loss for the participant, it is likely to be shared between the bondholders and stockholders.

1. Introduction

Literature suggests that ownership restructuring activities, such as mergers and acquisitions, spin-offs, or privatizations, play an important role in business operations. A growing line of research focuses on another type of organizational restructuring, namely joint ventures (JV) and strategic alliances (SA), which have been recognized to exert substantial impacts on firm performance and create significant value. Joint ventures are established through formal arrangements involving equity ties (Amici et al., 2013), resulting a separate legal entity. On the other hand, strategic alliances are voluntary arrangements among firms involving exchanges, sharing, or co-development of products, technologies, or services (Gulati, 1998). Both forms of collaboration allow firms to utilize resources from cooperative partners without giving up control of their own operations (Chan et al., 1997). The motivations for international JV and SA, similar to the motivations for capital flows between countries (Keown et al., 2015), are to obtain returns that are higher than those that could be obtained in the domestic markets and to reduce risk through international diversification. While past research has advanced the idea that national culture and country-level governance matter in corporate decisions on financing and operations (e.g., LaPorta et al. (1997, 1998) and Stulz and Williamson (2003)), what remains unknown is whether and how these country-level mechanisms play a role in international JV and SA. Particularly, in this paper we empirically examine how national culture and country-level governance affect the value creation of international JV and SA activities.

A substantial body of previous research focuses on shareholder wealth effects in domestic joint ventures and strategic alliances. McConnell and Nantell (1985) and Johnson and Houston (2000) document positive stockholder wealth effects associated with joint venture announcements. Chan et al. (1997) find that strategic alliances create shareholder value at the

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announcement and that the participants experience an improvement in operating performance afterwards. Allen and Phillips (2000) demonstrate that strategic alliances, joint ventures, and other product market relationships, in conjunction with block ownership lead to a significant increase in stock price, profitability, and operating performance. Krishnaswami et al. (2004) show that strategic alliances alleviate the capital constraints of small, high-growth firms and that the partnership announcements lead to significantly positive market reactions. Ivanov and Lewis (2009) find that IPO firms with alliances that commence before the offering tend to obtain greater IPO valuations, invest more, and have higher growth than other IPO firms. Merchantt and Schendel (2000) examine the conditions under which the announcements of international joint ventures lead to increases in shareholder value of U.S. participants. They find that partner-venture business relatedness, the pursuit of R&D-oriented activity, greater equity ownership, and larger firm size, have a positive impact on value creation. However, no support is found for the hypothesized effect of cultural relatedness and political risk. Chang et al. (2008) investigate the wealth impacts for Japanese and US firms in strategic alliances and find that on average, both Japanese and U.S. shareholders benefit from the formation of international alliances. They also find that shareholders earn larger abnormal returns when the partnering firms are smaller in size, have higher growth opportunities, or are less profitable. Chiou and White (2005) examine the shareholder wealth effects of financial institutions' strategic alliances and present evidence of value creation, especially for smaller partners. However, they do not find a significant difference in abnormal return between domestic-foreign and domestic-domestic alliances. Interestingly, Amici et al. (2013) find that international strategic alliances tend to destroy shareholder value. Using a sample of European and US banks, they find that the abnormal stock returns associated with these joint ventures and strategic alliances vary: joint

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ventures involving non-financial partners or those allowing banks to expand abroad are able to create shareholder value.

As a stark contrast, little research has been done to examine bondholder reaction associated with JV and SA deals. Chen et al. (2015) is the one of a few studies that focus on bondholder wealth effects and find positive and significant bond price reactions to JV and SA announcements, suggesting an increase in bondholder wealth. They find that bond abnormal returns can be explained by synergy, alleviation of financial constraints, and real option effects. Chou et al. (2014) examine the yield spreads of newly issued bonds for SA firms.

In this study, we examine the bondholder wealth effects for non-U.S. (foreign) companies in global collaborative activities of JV and SA. To our knowledge, very few studies have examined the wealth effects for foreign participants, and they are limited to shareholder reactions. To be specific, Amici et al (2013) use US and European banks, while Chiou and White (2005) use data from the Japanese financial sector. To our knowledge, we are the first to explore the claimholder wealth effects of foreign participating firms in JV and SA. With the inclusion of foreign-U.S. and foreign-foreign deals, we are able to conduct a comprehensive study of global business collaborations by examining their impacts on claimholder returns and the channels of such value creation. In addition, we explore a sample of companies that span across various industries, rather than limited to financial institutions. This paper examines claimholder reactions to announcements of international JV and SA, with the emphasis on bondholder wealth effects. We aim to explore the following research questions: 1) Do international joint ventures and strategic alliances create value for investors, especially, bondholders? 2) If there are significant wealth effects, what are the determinants? We particularly focus on whether country-level cultural and governance dimensions are drivers of

wealth effects, and 3) What role does wealth transfer effect play, if any, in value creation?

We first document significantly positive abnormal returns for bondholders and stockholders of foreign companies following the announcements of global JV and SA. Interestingly, bondholders experience larger abnormal returns than stockholder: for example, the average 3-month abnormal return is 1.53% for bondholders and 0.64% for stockholders. Next, we focus on bondholder reaction and its determinants. We test two main determinants: country-level governance using the world governance and investor protection indices, and national culture using the Hofstede's cultural dimension and trust. We find that a country's cultural and governance dimensions explain a significant portion of the bondholders gain. More specifically, bondholders benefit more from JV and SA if they are from countries with poorer country-level governance, stronger creditor protection, and lower shareholders protection. In addition, bondholders gain more when they are from countries with a culture characterized with a higher level of trust, greater individualism, more short-term orientation, more masculinity, and less power distant. Lastly, we test for potential wealth transfer between bondholders and stockholders. It is possible that some of the bondholder gain can be attributed to a wealth transfer from stockholders. We find a positive significant correlation between bondholder and stockholder abnormal returns, indicating little support for a wealth redistribution effect from shareholders to bondholders. However, a closer examination reveals an interesting phenomenon: The correlation between abnormal bond and stock returns is low for firms with a positive bondholder gain, while the correlation between abnormal bond and stock returns is high for firms with a negative abnormal bond return. In other words, when bondholders experience a loss, shareholders are very likely to experience a loss as well. On the other hand, when bondholders gain, there is a small likelihood that stockholders also have a

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favorable reaction.

We contribute to the finance literature in the following ways. First, this paper is the one of first studies to employ a large sample of international JV and SA activities spanning across 24 countries and multiple industries to examine the bondholder wealth effects, especially for the foreign participants. Second, domestic firms now look beyond country borders in the search of profits. With a rising globalization of international portfolio and direct investment, two unanswered, urgent questions need to be addressed: study for foreign participants in JV and SA activities, and study of how bondholders behave in the cooperative activities. Both are essential to the matter of globalization. With the focus on bondholder wealth for foreign participants, our paper tries to provide answers to the questions and explores them in depth. Third, our paper adds evidence that institutional environment, i.e., culture and country-level governance matter in corporate restructuring, in particular, JV and SA activities.

The remainder of the paper is structured as follows. In Section 2, we propose the testable hypotheses. Section 3 describes the sample collection process, model specification, and the construction of main variables of interest. Section 4 presents the multivariate results. Section 5 concludes.

2. Hypotheses development

2.1. Impacts of international business cooperation on bondholders

Corporate governance at the country level: In the literature on institutional environment, Williamson (2000) focuses on the roles of institutions, i.e., new institutional economics. He defines institutions as structures or mechanisms of social order, rules, and processes that establish boundaries of behavior and specify environment in which economic

activities occur. Williamson (2000) argues that institutions matter. LaPorta et al. (1997, 1998) show that countries with poorer investor protection, measured by the legal environment and the quality of law enforcement, have smaller and limited capital markets. These finding apply to both equity and debt markets. In particular, French civil law countries, compared to common law countries, have both the weakest investor protection and the least developed capital markets. Corporate governance consists of both country-level and firm-level mechanisms. Firm-level or internal governance mechanisms are those that operate within the firm. Klock et al. (2005) find that shareholder protection provisions at the firm level lower the cost of debt. Country-level governance mechanisms include a country's laws and the institutions that enforce the laws. Aggarwal et al. (2009) construct a firm-level governance index that increases with minority shareholder protection. For each country, they calculate the country-level governance score by averaging the firm-level governance indices. Their findings suggest that in non-U.S. countries, foreign institutions from countries with strong shareholder protection play a role in promoting and improving governance. Desai et al. (2004) argue that tax penalties in foreign countries are one of the reasons that US firms hesitate to engage in international partnerships.

Following the literature, we adopt three measures for country level governance: the World Governance Index (WGI) published by the World Bank (Kaufmann et al. (2010)), the corrected Anti-director Rights Index (ADRI) introduced by Spamann (2010), and the Strength of Legal Rights Index (SLRI) from the World Bank. We hypothesize as follows. A higher WGI indicates stronger country-level governance, implying a less risky business environment and stronger protection for claimholders. As JV and SA are anticipated by investors to reduce firm

risk[1], we hypothesize that bondholders of firms from a low-WGI nation benefit more from JV and SA activities than those from a high-WGI countries. Similarly, bondholder gain should be positively related to the difference in WGI between the participant's nation and the nation in which the JV or SA is set up. For the Anti-director Rights Index, previous literature suggests that the effects of shareholder protection on bondholder reaction are mixed. Miller et al. (2011) find that strong country-level shareholder rights do not necessarily lead to unfavorable effects for bondholders. Using a sample of bank mergers, Ongena et al. (2009) suggest that bondholders experience higher abnormal returns when the country of the partner bank has stricter rules in relation to the forbearance of prudential regulations than its own country. Focusing on U.S., firms, Cremers et al. (2007) and Li and Wang (2016) investigate the effects of shareholder governance mechanisms on bond returns and find that without bond covenants shareholder and bondholder interests diverge. We hypothesize that for foreign firms involving in international JV and SA deals, stronger shareholder protection (higher ADRI) should be associated with lower bondholder returns. SLRI measures the degree to which collateral and bankruptcy laws protect the rights of borrowers and lenders. We use SLRI as a proxy for country-level bondholder protection. We expect that stronger creditor protection should lead to higher abnormal bond returns at the announcements of international collaborations.

Culture: A growing body of research shows that culture has a strong impact on corporate decisions and exhibits a causal link to economic outcomes of such decisions. Stulz

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[1] A fundamental motivation for cooperative alliances is the reduction of risk through risk sharing (Harrigan 1988; Sheth and Parvatiyar 1992; Pan and Tse 1996). Kogut and Singh (1988) shows that when culture difference is large, firms tend to choose JVSA over mergers.

and Williamson (2003) argue that the cultural dimension, proxied by religion and language, cannot be ignored when one examines the cross-country variation in investor protection. They show that a country's principal religion predicts the cross-sectional variation in creditor rights better than a country's natural openness to international trade, language, income per capita, or the origin of its legal system. Catholic countries protect the rights of creditors to a lesser extent than protestant countries. Zheng et al. (2012) investigate the influence of national culture on the structure of corporate debt maturity and find robust evidence that firms located in countries with high levels of uncertainty avoidance, collectivism, power distance, or masculinity tend to use more short-term debt. In other words, they show that national culture helps explain the cross-country variation in debt maturity structure. Bryan et al. (2015) focus on how national culture can be linked to the cross-country differences in the structure of executive compensation contracts. They suggest that culture is a significant determinant of the structure of executive compensation. Owen and Yawson (2013) use the geographic distance as a proxy for information asymmetry cost, and find information asymmetry affects the formation of cross-border strategic alliances by US firms. Kogut and Singh (1988) find that national culture influences a firm's decision on the type of cross-border partnerships: The greater the cultural differences, the more likely a firm chooses JV or SA than merger. Another aspect of the cultural dimension is trust. Guiso et al. (2008) indicate that lack of trust is an important factor in explaining the puzzle of limited participation in cross-country collaborations. Duarte et al. (2012) find that borrowers appearing more trustworthy have a higher probability of having their loans funded, better credit scores, and lower default risk. They suggest that the impression of trustworthiness matters in financial transactions as they predict borrower behaviors.

Following the literature (e.g. Bryan et al. 2015, Ahern et al. 2015, Pevzner et al. 2015, and Li et al. 2013), we adopt two sets of proxies to measure the cultural dimension: Hofstede's culture dimensions and Trust from World Values Survey. We have the following predictions for the measures of culture. According to Hofstede (2001), Power Distance (PDI) is defined as the extent to which the less powerful institutions and organizations within a society expect and accept that power is distributed unequally. Individualism (IDV) stands for a society in which the ties between individuals are loose. Uncertainty Avoidance (UAI) is defined as the extent to which the members of institutions and organizations within a society feel threatened by uncertain, unknown, ambiguous, or unstructured situations. Long Term Orientation stands for a society that fosters virtue orientation towards future rewards, in particular, adaptation, perseverance and thrift. Masculinity (MAS) stands for a society in which social gender roles are clearly distinct: men are supposed to be assertive, tough, and focused on material success; women are assumed to be modest, tender, and concerned with the quality of life. Collectivist (as opposed to Individualism) societies emphasize strong informal ties among in-groups and rely on informal networks and relationships rather than formal institutions to protect against opportunism (Li and Zahra (2012)). Li et al. (2013) find that Individualism has a positive and significant impact on corporate risk-taking. Zheng et al. (2012) suggest that firms located in countries with high collectivism tend to use more short-term debt. In other words, firms from an individualistic culture prefer risk while those from a collectivistic culture dislike risks. In addition, Fauver and McDonald (2015) show that a higher level of individualism is associated with greater use of debt and a lower cost of capital. Chen et al. (2015) argue that joint ventures and strategic alliances can be viewed as a real option. Firms are able to explore potential investments involving great uncertainty. Chan et al. (1997) suggest that strategic alliances offer

the participating firms an intermediary step before further commitment. Joint ventures and strategic alliances as a relatively temporary strategy may be more attractive to firms that are from a short-term orientated or individualistic culture. As literature suggests, we expect a culture of less power distance, stronger individualism, more masculinity, less uncertainty avoidance, and less long-term orientation (or short-term orientation) is associated with more risk. Therefore, we hypothesize that bondholders of firms that are from less power distant, individualistic, masculine, less uncertainty avoidance, and short-term orientated culture benefit more in JV and SA activities, since investors anticipant these collaborations help reduce risk. As to Trust, Pevzner et al. (2015) find that investor reaction to earnings announcements is significantly higher in more trusting countries. We expect participants from more trusting countries achieve greater bondholder gains in JV and SA activities.

2.2.　Other drivers of bondholder wealth effects in JV and SA

In addition to our main two hypotheses relevant to the international deals, we include other explanations for bondholder wealth effects in JV and SA as documented in prior literature: synergy effect, alleviation of financial constraints, real option, and wealth transfer effect.

Synergy effect: Previous literature has documented that synergy is attributable to positive shareholder value (McConnell and Nantell (1985), Johnson and Houston (2000), and Chan et al. (1997)). On the bondholders' side, Chen et al. (2015) find that financial synergy is a main driver of bondholder wealth effects in joint ventures, while operating synergy is a dominant factor in strategic alliances. To test whether synergy influences bondholders gain in international JV and SA activities. Following the literature, we adopt two measure of synergy:

business proximity and geographical distance. We posit that the synergy effect from JV and SA should create value for bondholders. To be specific, greater business proximity or shorter geographic distance should lead to larger abnormal bond returns.

Alleviation of financial constraints: Literature indicates that financial constraints are one of the major reasons for corporate restructuring activities. Boone and Ivanov (2012) suggest that one of the benefits of JV and SA is the alleviation of financial constraints. Through such activities, partnering firms share resources and have a lighter burden in raising external financing, resulting in an alleviation of financial constraints. The financial flexibility embedded in JV and SA is valuable to bondholders because participating firms can refrain from issuing additional debt to finance investments, which is especially valuable for financially constrained companies. In this study, we use low dividend payout as a proxy for financial constraints, and we posit that the abnormal bond returns due to joint venture and strategic alliances are positively related to the extent of financial constraints.

Real option effect: Chen et al. (2015) identified JV and SA as real options as they offer firms with the opportunity to explore potential investments involving high uncertainty with no upfront cost and low termination cost. Such managerial flexibility embedded in the cooperative activities "grants the participating firms a real option to delay, expand, contract, or abandon their investments in an efficient way," therefore the real option feature of JV and SA creates value for bondholders of US participating firms. With such real option, JV and SA participants can take part in risky investments without increasing its downside risk. Mansi and Reeb (2002) suggest that a reduction in downside risk decreases the shareholder's option value and thereby increases the bondholder value. We test the real options hypothesis using two measures that are positively related to risk and the value of real options: uncertainty of investment and

industry concentration. We expect the real option effect crease bondholder value for firms in global JV and SA.

Wealth transfer effect: Although several papers have studied shareholders' gain around JV and SA, only a few studies examine both shareholder and bondholder reactions and the potential wealth transfer between these claimholders. Despite the lack of empirical support in the literature on JV and SA activities, wealth transfer (wealth redistribution) effect has been vastly tested in other corporate events. Billett et al. (2004) examine the wealth effects of mergers and acquisitions on target and acquiring bondholders in the 1980s and 1990s. They find no evidence of wealth transfers between stocks and bonds of either target or acquiring firms, and only a faint trace of a wealth transfer between the combined (target and acquirer) stocks and bonds. Chow (1983) studies the impact of accounting regulations on bondholder and stockholder wealth. He finds that the '33 Act enhances bondholder wealth. However, this effect does not appear to be attributed to a wealth transfer from shareholders. Maxwell and Rao (2003) find evidence consistent with the wealth expropriation hypothesis regarding shareholders' gain on the announcements of spin-offs. Maxwell and Stephens (2003) explore the bondholder wealth effects associated with share repurchases, and suggest that the positive abnormal stock returns are attributable to a signaling effect and wealth redistribution from bondholders to stockholders. Handjinicolaou and Kalay (1984) examine the information content and wealth redistribution explanations for the shareholder gains around dividend announcements. They present evidence consistent with the information content hypothesis, and that the gain from positive information is mainly captured by shareholders while the loss associated with negative information is shared with bondholders. Given the extensive literature on wealth redistribution between shareholders and bondholders in major corporate events, we

explore the possibility of wealth redistribution from stockholders to bondholders in our study of international collaborations.

3. Sample construction, model specification, and univariate analysis

3.1. Sample selection

We employ multiple databases in this research. International joint venture and strategic alliance announcements, deal information, and deal characteristics are from SDC platinum. For foreign firms, bond prices, bond characteristics, benchmark indices, and equity prices are collected from Datastream. Financial information is collected from Bloomberg. For US firms, bond prices and characteristics are obtained from FISD and TRACE, and stock price data and firm financial data are from CRPS and Compustat, respectively. We retrieve all JV and SA deals for the period from 2009 to 2015 to arrive at the initial sample of 21,113 JV and SA deals. To be specific, 30,668 event-firm observations for joint ventures from 176 countries, and 14,502 event-firm observations for strategic alliances from 131 countries. Panel 1 in A shows the distribution at the event level by announcement year, and Panels 2 and 3 show the distribution of event-firm observations of JV and SA by country. By requiring valid 3-month bond abnormal returns around announcement, we arrive at 3,910 JV and SA deals of 4,889 event-firm observations associated with 1,860 unique firms from 24 countries. Table 1 shows the distribution of the cooperative activities in our sample. Panel A reports the number of events by year, and Panel B shows the number of event-firms by country.

3.2. Model specification

We apply the event study methodology to calculate the cumulative abnormal returns around the cooperative announcements for foreign firms and U.S. firms. For foreign firms' abnormal bond returns we define the risk-adjusted abnormal return for bond *i* as:

$$AR_i = R_i - R_{bm}$$

where AR_i is the risk-adjusted abnormal return of bond *i*, R_i is the raw bond return, and R_{bm} is the return of a bond index matched by country[2]. We estimate R_i as follows:

$$R_i = \frac{P_2 - P_1 + I}{P_1}$$

where $P_1 \; and \; P_2$ are bond prices at the first and last day of event window month[3]; *I* is the accrued interest. Similarly, we calculate the bond index return, R_{bm}, using the returns of Barclays' global corporate aggregate bond indices reported in Datastream. Since eighty percent of bond pricing data reported in DataStream are market prices and the remainder are filled with prices from the automated processes, we measure the abnormal bond return on a monthly basis in addition to estimating it on a daily basis to reduce the impact of the extrapolated prices.[4] For firms with multiple bonds outstanding, *AR* at the firm level is the weighted average of *ARs* of individual bonds by amount outstanding. Three event windows are used: (0, 0), (-1, 0), and (-1, 1), where month (date) 0 is the announcement month (date).[5] For stocks, abnormal returns are calculated using the market model estimated from 210 to 11 days prior to the announcement date. The MSCI country-level market indices from Datastream are

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[2] For US bonds, we follow Warga and Welch (1993) and define risk-adjusted abnormal return for a given bond as a raw return net of the return of a bond index matched by rating and maturity.

[3] For US bonds, the raw return of a given bond is based on the first and last bond trading prices which are available during a given event window, and it is calculated as $R_i = \sqrt[t]{(1 + r)^T} - 1$, where P_1, P_2 are bond prices at the first and last day of event window month; I is the accrued interest; T refers to the number of days in a given event window; and t is the number of days between dates 1 and 2.

[4] Information stated in Time Series: Securities & Economics manual in Datastream.

[5] Since the bond pricing information for U.S. firms is based on the transaction data from Mergent FISD, we use holding period returns to calculate the abnormal bond returns.

used to calculate ARs for foreign firms, and CRSP value-weighted index is used for U.S. firms. To

be consistent with bonds, we use the same monthly and daily event windows.

In the multivariate regressions, we focus on abnormal bond returns for foreign

participants and include hypotheses variables, deal characteristics, firm characteristics, bond

characteristics, and other control variables. The model is formulated as follows:

$$CAR_{i,t} = b_0 + b_1 * (governance)_{i,t} + b_2 * (culture)_{i,t} + b_3 * (synergy)_{i,t} + b_4$$
$$* (allieviation\ of\ financial\ constraints)_{i,t} + b_5 * (real\ option)_{i,t} + d$$
$$* DealChar + f * FirmChar + b * BondChar + c * Controls + e_{i,t}$$

where $CAR_{i,t}$ is the 3-month cumulative abnormal bond return of firm i at time t.

3.3.   Abnormal bond and stock returns for foreign and U.S. participants

Table 2 reports the cumulative abnormal returns of claimholders at the announcements

of JV and SA deals. Panels A and B present the results for foreign and U.S. firms respectively.

Across the three monthly event windows, CARs for bondholders are significantly positive for

both foreign and US samples. For example, the average three-month CAR is 1.53% for foreign

firms and 1.38% for U.S. firms. These are comparable to the three-month abnormal bond return

of 1.13% for the U.S. bonds reported in Chen et al. (2015). For the foreign bonds, we also report

the results for the daily windows.[6] The three-day foreign bond CAR is 0.05%, which is

insignificant[7]. For stockholder returns, except for the 3-month CAR for the U.S. firms, we have

positive and significant CARs across all event windows and for both foreign and U.S. firms. For

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[6] Note that for US firms we are not able to calculate CARs for daily windows since US bond transaction data is not
   on a daily basis.

[7] To be specific, the 3-day CAR of foreign bond for JV is 0.12% (significantly at the 10% level) and -0.14% for SA
   (insignificant).

instance, the 3-month CAR is 0.64% for the foreign firms and 1.05% for U.S. firms; the 3-day CAR is 0.34% for the foreign firms and 0.90% for U.S. firms. Our findings are generally consistent with those documented in prior literature on JV and SA. Amici et al. (2013) report that the mean stock CAR over the 31-day window of (-15, 15) for the U.S. and European banks is 0.36%, which is comparable to the 1-month foreign stock CAR of 0.57% in our study. Their 2-day window CAR is 0.13%, whereas ours is 0.26%. Chen et al. (2015) find the average 2-month stock CAR for U.S. firms to be 1.06%, and while our corresponding result is 1.02%. Gleason et al. (2003) study the U.S. financial services firms and find the mean 2-day (3-day) stock CAR to be 0.51% (0.66%), which is comparable to 0.78% (0.9%) found in our analysis.

4. Multivariate analyses

4.1. Baseline regressions

For multivariate regressions, we further require firms to have valid information on total assets, market to book, leverage, and credit rating. By imposing these conditions, we arrive at the final sample of 3,070 event-firm observations consisting of 1,981 foreign event-firms and 1,089 US event-firms. Table 3 reports the descriptive statistics of the regression variables for our final sample. Details on variable definitions are provided in Appendix B. We observe that compared to the U.S. participants, the foreign firms is in general less individualistic, more uncertainty avoidance, more long-term oriented, and more power distance. A closer look at JV and SA samples separately reveals that high technology firms tend to choose strategic alliances over joint ventures. In addition, firms in SA have higher leverage or a higher market-to-book ratio than those in JV, which are consistent with the literature.

As discussed above, we focus on the foreign participants in our multivariate regressions due to the fact that our main hypotheses refer to country-level governance and cultural dimensions. We exclude the U.S. participants from the analysis for two reasons. First, CARs, as the dependent variable, are calculated differently for US and foreign participants due to data limitation. Second, we want to minimize the possible bias that could be introduced by including a large sample of U.S. firms with the same country-level governance and cultural measures. Considering the hypothesis measures, especially those for the governance and culture hypotheses, we are cautious of the potential concern for multicollinearity. Table 4 reports the correlation matrix for all hypothesis and control variables. The results show that the country-level governance measures and some of culture proxies have relatively high correlations, which is consistent with LaPorta et al. (1997, 1998). For example, SLRI is highly correlated with 4 out of 5 culture measures. As a result, so we orthogonalize SLRI by regressing SLRI on each of the 4 culture measures, and use the residual of SLRI in the regressions. In addition, we employ six regression models with each model containing a different set of proxies.

Table 5 reports the results of the baseline regressions of abnormal bond returns for foreign participants in JV and SA activities. The dependent variable is the three-month cumulative abnormal bond return. Model 1 through 5 each adopts one of the five culture measures along with SLRI, while Model 6 uses ADRI. For the country-level governance hypothesis, we find strong evidence supporting our predications. In particular, we find a significant and negative coefficient on the World Governance Index (WGI3), a significant and positive coefficient on SLRI across Model 1 through 5, and a significantly negative coefficient on ADRI in Model 6. Bondholders of participants from countries with poor governance benefit more in JV or SA deals than those from countries with strong governance. The insignificant

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results on WGI_diff suggest that for the effects of country-level governance, the difference in governance strength between the participant country and the country where JV or SA resides does not matter, whilst the governance strength of the participant country matters in a significant manner.

For the culture hypothesis, we first observe positive and significant coefficients on Trust across all regression models, indicating that bondholders from more trusting countries gain more in JV and SA, which is consistent with our prediction. For culture proxies, we find significant coefficients on four out of six models. More specifically, bond abnormal returns are negatively related to power distance and long-term orientation, and positively related to individualism and masculinity. These findings are consistent with our culture hypothesis that bondholders of firms from a more risk-loving culture are likely to enjoy greater gains in international collaborative activities. For the remaining hypotheses of synergy effect, alleviation of financial constraint, and real option, we find little evidence suggesting that any of these factors help explain the abnormal bond returns of foreign participants after we consider the country-level governance and culture measures. The results suggest that for foreign firms in international JV and SA deals, bondholder wealth effects are mainly driven by country-level institutional environment.

4.2. Subsample analyses

In this section, we divide the foreign sample into different sets of subgroups base on certain deal, firm, and bond characteristics. In particular, we perform the following subsample analyses: same- versus multiple-nation deals, frequent versus infrequent participants, and speculative- versus investment-grade bonds.

Same- versus multiple-nation deals: Same-nation deals are those in which all participants are from the same country, whereas multiple-nations deals are the remainder. The aforementioned results on the country-level governance measures suggest that bondholder wealth effects are mainly driven by the governance strength of the participant's country rather than the difference in governance strength between the participant country and the country in which JV or SA is established. Therefore, we expect that country-level governance should have more pronounced impacts on bondholder wealth in the same-nation deals than in the multiple-nations deals. In addition, we expect the culture dimension to play an important role in the multiple-nation deals, but not in the same-nation deals. Table 6 reports the regression results for the same-nation deals and multiple-nation deals separately. Consistent with our conjectures, the results suggest that the drivers of the abnormal bond returns differ between the two subgroups. Country-level governance proxies are more prominent in the same-nation deals and Trust is more prominent in the multiple-nation deals. Interestingly, we observe that the culture measures are more pronounced in the same-nation deals than in the multiple-nation deals, which is contrary to what we expect. One possible explanation is that the culture of the participant's country is a more influential driver of bondholder wealth effects than the difference in culture among JV or SA participants –similar to what we found of that in country governance.

Frequent versus infrequent participants: A common phenomenon in the joint venture and strategic alliance activities is that some firms are frequent players that participate in cooperative activities multiple times. The median number of times a firm participates in either JV or SA is 6 in our sample. Lindsey (2008) finds that alliances are more frequent among companies sharing a common venture capitalist. We conjecture that the firm characteristics or

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motives of the frequent participants may be different from those of the infrequent participants. As a result, the determinants for bondholder wealth effects could vary between the two subsamples. We define the frequent participants as the firms that appear in more than six deals during our sample period, and the remaining firms are regarded as the infrequent participants. For frequent participants, its country governance may not matter as much as for the infrequent participants who are novice in the JV and SA markets. On the other hand, trust may exert a strong influence on frequent participants as reputation has been established from past participation. Therefore, we expect that country-level governance measures have a more pronounced impact for infrequent participants, while Trust is more prominent for frequent participants. Table 7 presents results that are mostly consistent with our predictions. In particular, WGI3 and ADRI are important for infrequent participants but not for frequent participants, SLRI matters in both subsamples but has larger coefficients in infrequent participants. Trust plays a significant role in determining bondholder gain in frequent participants but not in infrequent participants.

Speculative- versus investment-grade: Bond rating has been well documented to have influence on bond value (e.g., Kliger and Sarig (2000) and Elliott et al. (2009)). It serves as an important measure of credit quality. We hypothesize that country-level governance matters more in speculative grade than investment grade firms because speculative grade bondholders benefit more from the additional protection that the country-level governance provides. Table 8 repots the results for the speculative-grade bonds and investment-grade bonds separately. We see that WGI3 is significant at the 1% level across 5 models in the speculative-grade subsample, but not significant for investment-grade subsample. SLRI is significant in both subsamples but the magnitude of the coefficients is much larger for the speculative-grade

regressions than those for the investment-grade models. These findings are consistent with our predictions stated above.

4.3. Robustness tests

We conduct several robustness tests on the baseline regressions of bondholder wealth effects around the announcements of JV and SA. First, in the baseline regression, we use the bond information of the parent company if the participant bond(s) has missing return data. Panel A of Table 9 reports the baseline regressions after excluding the observations using parent companies. We find that the results on the two main hypotheses remain robust. The coefficients on the three governance measures and Trust remain significant and are larger in magnitude. Second, in the above analysis we employ the governance measure WGI3, which consists of three out of six estimates in the World Governance Index (WGI) reported by the World Bank. These three estimates (Government Effectiveness, Regulatory Quality, and Rule of Law) are chosen as we conjecture them to be most relevant to bondholder wealth effects. As a robustness check, we extract the first principal component (Prin1) of the six estimates of WGI and replace WGI3 with Prin1.[8] Panel B report the results, which are very similar to those of the baseline regressions reported in Table 5. Third, when constructing the final sample, we delete all bonds with missing credit ratings. As a robustness check, we replace the missing credit ratings with "Not Rated" and include these observations in the regressions reported in Panel C. Results remain generally robust across models. Forth, we include the Fama-French 49 industry and year fixed effects. Lastly, since 50% of the firms participate in more than one JV or SA deal during the sample period, we test to see if the results remain robust if we include each

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[8] We also use the average of the six estimates as an alternative measure and results remain robust.

participant only once. Both of the last two robustness checks yield results that are similar to those in the baseline regressions. For reference, we report these results in Appendix C.

4.4.   Wealth transfer effects

To explore the wealth transfer effects, we run a baseline regression analysis for stockholders and present the results in Table 10. We see that for the country-level governance measures, creditor rights (SLRI) and shareholder rights (ADRI) have significant effects on shareholder wealth, but WGI do not seem to be a significant driver. In particular, stronger shareholder protections and less creditor protection are associated with greater shareholder gain. For the culture measures, Trust matters in determining shareholders' abnormal returns. Stockholders of firms from more trusting countries experience larger abnormal returns. Other culture measures are significant factors as well. In general, the results are comparable to those for bondholder wealth effects.

Section 3.3 and Table 2 show that the abnormal bond and stock returns of foreign participants are positive and significant, however, the abnormal stock returns are smaller in magnitude than the abnormal bond returns. It is curious that the smaller gain to shareholders may be due to wealth redistribution to bondholders. Table 11 presents the correlations between the cumulative abnormal bond returns and cumulative abnormal stock returns for each of the three monthly event windows. Panel A suggests that the correlations between bond CARs and stock CARS are positive and significant across all event windows and samples, indicating that wealth redistribution is not likely to be a factor for bondholder gains in JV and SA deals. We further divide the sample into a subgroup where bondholders experience a gain, and

a subgroup where bondholders have a loss[9]. The results shown in Panel B indicate that the correlation between cumulative abnormal bond returns and cumulative abnormal stock returns is lower for firms in the "Gain" subgroup (0.053) than that in the "Loss" subgroup (0.24). In other words, when bondholders experience a loss, stockholders are more likely to experience a loss along with the bondholders. On the other hand, when bondholders enjoy a gain, stockholders are less likely to experience a gain. Similar to Handjinicolaou and Kalay (1984), our findings suggest that when a JV or SA deal results in a loss for the claimholders of participating firms, the loss is likely to be shared between the bondholders and stockholders. On the other hand, when a JV or SA leads to a gain for the participants, bondholders may capture most of the gain.

5.   Conclusion

In this paper, we empirically examine the bondholders wealth effects associated with international business collaborations in the form of joint ventures and strategic alliances. We investigate the determinants of value creation for bondholders, and test for possible wealth redistribution between stockholders and bondholders. Based on a comprehensive sample of international JV and SA deals over the period of 2009-2015, we show that the cooperative agreements create significant value for bondholders. We find that joint ventures and strategic alliances lead to positive and significant bondholder wealth effects, which are mainly driven by the country level governance and culture dimensions. Bondholders gain more in stronger country-level governance and creditor protection. In addition, bondholder wealth effects are

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[9] We use the three-month abnormal bond return to determine the "Gain" and "Loss" subgroups.

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larger for participants from a risk-loving culture that is more individualistic, masculine, short-term oriented, and less power distant. We perform a variety of robustness checks and subsample analyses and our main findings remain robust. We find little evidence for wealth redistribution between stockholders and bondholders. Nonetheless, the results suggest when a JV or SA deal results in a loss for the participants, the loss is likely to be shared by the bondholders and stockholders.

To the best of our knowledge, this paper is the one of first studies to employ a large sample of international JV and SA activities spanning across 24 countries and multiple industries to examine the bondholder wealth effects, especially for the foreign participants. Our findings contribute to the literature on international cooperative agreements, country-level governance, and national culture. This study provides new and important insights into the impacts of joint ventures and strategic alliances on claimholders and the determinants of value creation in global joint ventures and strategic alliances.

References

Aggarwal, R., Erel, I., Ferreira, M. and Matos, P., 2011. Does governance travel around the world? Evidence from institutional investors. *Journal of Financial Economics*, *100*(1), pp.154-181.

Ahern, K.R., Daminelli, D. and Fracassi, C., 2015. Lost in translation? The effect of cultural values on mergers around the world. *Journal of Financial Economics*, *117*(1), pp.165-189.

Amici, A., Fiordelisi, F., Masala, F., Ricci, O. and Sist, F., 2013. Value creation in banking through strategic alliances and joint ventures. *Journal of Banking & Finance*, *37*(5), pp.1386-1396.

Billett, M.T., King, T.H.D. and Mauer, D.C., 2004. Bondholder wealth effects in mergers and acquisitions: New evidence from the 1980s and 1990s. *The Journal of Finance*, *59*(1), pp.107-135.

Bodnaruk, A., Massa, M. and Simonov, A., 2013. Alliances and corporate governance. *Journal of Financial Economics*, *107*(3), pp.671-693.

Boone, A.L. and Ivanov, V.I., 2012. Bankruptcy spillover effects on strategic alliance partners. *Journal of Financial Economics*, *103*(3), pp.551-569.

Bryan, S., Nash, R. and Patel, A., 2015. The effect of cultural distance on contracting decisions: The case of executive compensation. *Journal of Corporate Finance*, *33*, pp.180-195.

Chan, S.H., Kensinger, J.W., Keown, A.J. and Martin, J.D., 1997. Do strategic alliances create value?. *Journal of Financial Economics*, *46*(2), pp.199-221.

Chang, S.C., Chen, S.S. and Lai, J.H., 2008. The Wealth Effect of Japanese-US Strategic Alliances. *Financial Management*, *37*(2), pp.271-301.

Chen, J., King, T.H.D. and Wen, M.M., 2015. Do joint ventures and strategic alliances create value for bondholders? *Journal of Banking & Finance*, *58*, pp.247-267.

Chiou, I. and White, L.J., 2005. Measuring the value of strategic alliances in the wake of a financial implosion: Evidence from Japan's financial services sector. *Journal of Banking & Finance*, *29*(10), pp.2455-2473.

Chou, T.K., Ou, C.S. and Tsai, S.H., 2014. Value of strategic alliances: Evidence from the bond market. *Journal of Banking & Finance*, *42*, pp.42-59.

Chow, C.W., 1983. The Impacts of Accounting Regulation on Bondholder and Shareholder Wealth: The Case of the Securities Acts, 58Acct. *REV*, *485*, pp.489-502.

Claessens, S. and Klapper, L.F., 2005. Bankruptcy around the world: Explanations of its relative use. *American Law and Economics Review*, *7*(1), pp.253-283.

Cremers, K.M., Nair, V.B. and Wei, C., 2007. Governance mechanisms and bond prices. *Review of Financial Studies*, *20*(5), pp.1359-1388.

Djankov, S., Hart, O., McLiesh, C. and Shleifer, A., 2006. *Debt enforcement around the world* (No. w12807). National Bureau of Economic Research.

Djankov, S., McLiesh, C. and Shleifer, A., 2007. Private credit in 129 countries. *Journal of financial Economics*, *84*(2), pp.299-329.

Duarte, J., Siegel, S. and Young, L., 2012. Trust and credit: the role of appearance in peer-to-peer lending. *Review of Financial Studies*, *25*(8), pp.2455-2484.

Elliott, W.B., Prevost, A.K. and Rao, R.P., 2009. The announcement impact of seasoned equity offerings on bondholder wealth. *Journal of Banking & Finance*, *33*(8), pp.1472-1480.

Fang, Y., Francis, B., Hasan, I. and Wang, H., 2012. Product market relationships and cost of bank loans: Evidence from strategic alliances. *Journal of Empirical Finance*, *19*(5), pp.653-674.

Fauver, L. and McDonald, M.B., 2015. Culture, agency costs, and governance: International evidence on capital structure. *Pacific-Basin Finance Journal*, *34*, pp.1-23.

Gleason, K.C., Mathur, I. and Wiggins III, R.A., 2003. Evidence on value creation in the financial services industries through the use of joint ventures and strategic alliances. *Financial Review*, *38*(2), pp.213-234.

Guiso, L., Sapienza, P. and Zingales, L., 2008. Trusting the stock market. *Journal of Finance*, *63*(6), pp.2557-2600.

Handjinicolaou, G. and Kalay, A., 1984. Wealth redistributions or changes in firm value: An analysis of returns to bondholders and stockholders around dividend announcements. *Journal of Financial Economics*, *13*(1), pp.35-63.

Hofstede, G. and Bond, M.H., 1988. The Confucius connection: From cultural roots to economic growth. *Organizational dynamics*, *16*(4), pp.5-21.

Hofstede, G.H. and Hofstede, G., 2001. *Culture's consequences: Comparing values, behaviors, institutions and organizations across nations*. Sage.

Ivanov, V. and Lewis, C.M., 2008. The determinants of market-wide issue cycles for initial public offerings. *Journal of Corporate Finance*, *14*(5), pp.567-583.

Johnson, S.A. and Houston, M.B., 2000. A Reexamination of the Motives and Gains in Joint Ventures. *Journal of Financial and Quantitative Analysis*, *35*(01), pp.67-85.

Kaufmann, D., Kraay, A. and Mastruzzi, M., 2011. The worldwide governance indicators: methodology and analytical issues. *Hague Journal on the Rule of Law*, *3*(02), pp.220-246.

Kliger, D. and Sarig, O., 2000. The information value of bond ratings. *The journal of finance*, *55*(6), pp.2879-2902.

Klock, M.S., Mansi, S.A. and Maxwell, W.F., 2005. Does corporate governance matter to bondholders?. *Journal of Financial and Quantitative Analysis*, *40*(4), p.693.

Kogut, B., 1991. Joint ventures and the option to expand and acquire. *Management science*, *37*(1), pp.19-33.

Li, H. and Wang, Y., 2016 How do Corporate Governance Decisions Affect Bondholders?. *Quarterly Journal of Finance*, p.1650011.

Li, K., Griffin, D., Yue, H. and Zhao, L., 2013. How does culture influence corporate risk-taking?. *Journal of Corporate Finance*, *23*, pp.1-22.

Li, Y. and Zahra, S.A., 2012. Formal institutions, culture, and venture capital activity: A cross-country analysis. Journal of Business Venturing, 27(1), pp.95-111.

Licht, A.N., Goldschmidt, C. and Schwartz, S.H., 2005. Culture, law, and corporate governance. *International review of law and economics*, *25*(2), pp.229-255.

Lindsey, L., 2008. Blurring firm boundaries: The role of venture capital in strategic alliances. *The Journal of Finance*, *63*(3), pp.1137-1168.

Malloy, C.J., 2005. The geography of equity analysis. *The Journal of Finance*, *60*(2), pp.719-755.

Mansi, S.A. and Reeb, D.M., 2002. Corporate diversification: what gets discounted?. *The Journal of Finance*, *57*(5), pp.2167-2183.

Mantecon, T., Liu, I. and Gao, F., 2012. Empirical evidence of the value of monitoring in joint ownership. *Journal of Banking & Finance*, *36*(4), pp.1045-1056.

Maxwell, W.F. and Rao, R.P., 2003. Do Spin-offs Expropriate Wealth from Bondholders?. *The Journal of Finance*, *58*(5), pp.2087-2108.

Maxwell, W.F. and Stephens, C.P., 2003. The wealth effects of repurchases on bondholders. *The Journal of Finance*, *58*(2), pp.895-920.

McConnell, J. and Nantell, T.J., 1985. Corporate combinations and common stock returns: The case of joint ventures. *The Journal of Finance*, *40*(2), pp.519-536.

Miller, D.P. and Reisel, N., 2011. Do country-level investor protections affect security-level contract design? Evidence from foreign bond covenants. *Review of Financial Studies*, p.hhr097.

Ongena, S. and Penas, M.F., 2009. Bondholders' wealth effects in domestic and cross-border bank mergers. *Journal of Financial Stability*, *5*(3), pp.256-271.

Owen, S. and Yawson, A., 2013. Information asymmetry and international strategic alliances. *Journal of Banking & Finance*, *37*(10), pp.3890-3903.

Palia, D., Ravid, S.A. and Reisel, N., 2008. Choosing to cofinance: Analysis of project-specific alliances in the movie industry. *Review of Financial Studies*, *21*(2), pp.483-511.

Pangarkar, N., 2003. Determinants of alliance duration in uncertain environments: The case of the biotechnology sector. *Long Range Planning*, *36*(3), pp.269-284.

Park, S.H. and Russo, M.V., 1996. When competition eclipses cooperation: An event history analysis of joint venture failure. *Management Science*, *42*(6), pp.875-890.

Pevzner, M., Xie, F. and Xin, X., 2015. When firms talk, do investors listen? The role of trust in stock market reactions to corporate earnings announcements. *Journal of Financial Economics*, *117*(1), pp.190-223.

Porta, R., Lopez-de-Silanes, F., Shleifer, A. and Vishny, R.W., 1997. Legal determinants of external finance. *Journal of Finance*, *52*(3), pp.1131-1150.

Porta, R.L., Lopez-de-Silane, F., Shleifer, A. and Vishny, R.W., 1996. *Law and finance* (No. w5661). National Bureau of Economic Research.

Qiu, L.D., 2010. Cross-border mergers and strategic alliances. *European Economic Review*, *54*(6), pp.818-831.

Spamann, H., 2010. The "antidirector rights index" revisited. *Review of Financial Studies*, *23*(2), pp.467-486.

Stahl, G.K. and Voigt, A., 2008. Do cultural differences matter in mergers and acquisitions? A tentative model and examination. *Organization Science*, *19*(1), pp.160-176.

Stulz, R.M. and Williamson, R., 2003. Culture, openness, and finance. *Journal of Financial Economics*, *70*(3), pp.313-349.

Tosi, H.L. and Greckhamer, T., 2004. Culture and CEO compensation. *Organization Science*, *15*(6), pp.657-670.

Uysal, V.B., Kedia, S. and Panchapagesan, V., 2008. Geography and acquirer returns. *Journal of Financial Intermediation*, *17*(2), pp.256-275.

Zheng, X., El Ghoul, S., Guedhami, O. and Kwok, C.C., 2012. National culture and corporate debt maturity. *Journal of Banking & Finance*, *36*(2), pp.468-488.

Appendix A

Panel 1: Distribution of Joint Ventures and Strategic Alliances by Year

This table shows the distribution for joint ventures and strategic alliances deals around the world from 2009 to 2015 by alliance announcement year.

Year	Full Sample		Joint Ventures		Strategic Alliances	
	N	%	N	%	N	%
2009	2,492	11.8	1,472	10.41	1,020	14.62
2010	1,542	7.3	1,153	8.16	389	5.58
2011	3,353	15.88	2,431	17.19	922	13.22
2012	4,233	20.05	2,591	18.33	1,642	23.54
2013	3,723	17.63	2,264	16.01	1,459	20.92
2014	3,686	17.46	2,462	17.41	1,224	17.55
2015	2,084	9.87	1,765	12.48	319	4.57
Total	**21,113**	**100**	**14,138**	**100**	**6,975**	**100**

Panel 2: Distribution of All Joint Ventures Participants by Nation

This table shows the distribution of joint venture events around the world from 2009 to 2015 across 176 countries where the participating firms operate.

					Joint Ventures						
Nation	**N**	**%**	**Nation**	**N**	**%**	**Nation**	**N**	**%**	**Nation**	**N**	**%**
Afghanistan	1	0	Dominican Rep	3	0.01	Laos	15	0.05	Romania	18	0.06
Albania	2	0.01	Ecuador	12	0.04	Latvia	10	0.03	Russian Fed	804	2.62
Algeria	24	0.08	Egypt	181	0.59	Lebanon	9	0.03	Rwanda	2	0.01
Andorra	2	0.01	El Salvador	2	0.01	Lesotho	1	0	Saudi Arabia	444	1.45
Angola	16	0.05	Equator Guinea	1	0	Libya	6	0.02	Senegal	2	0.01
Argentina	55	0.18	Eritrea	6	0.02	Liechtenstein	1	0	Serbia	15	0.05
Armenia	5	0.02	Estonia	11	0.04	Lithuania	18	0.06	Seychelles	1	0
Australia	1,470	4.79	Ethiopia	5	0.02	Luxembourg	49	0.16	Sierra Leone	2	0.01
Austria	67	0.22	Fiji	4	0.01	Macau	2	0.01	Singapore	642	2.09
Azerbaijan	21	0.07	Finland	117	0.38	Macedonia	8	0.03	Slovak Rep	3	0.01
Bahamas	1	0	France	652	2.13	Malaysia	516	1.68	Slovenia	14	0.05
Bahrain	73	0.24	Gabon	2	0.01	Mali	3	0.01	Somalia	1	0
Bangladesh	30	0.1	Georgia	5	0.02	Malta	9	0.03	South Africa	181	0.59
Barbados	3	0.01	Germany	700	2.28	Marshall Is	2	0.01	South Korea	490	1.6
Belarus	29	0.09	Ghana	14	0.05	Mauritania	2	0.01	Soviet Union	1	0
Belgium	112	0.37	Gibraltar	7	0.02	Mauritius	14	0.05	Spain	281	0.92
Belize	1	0	Greece	46	0.15	Mexico	118	0.38	Sri Lanka	55	0.18
Benin	1	0	Greenland	2	0.01	Monaco	1	0	Sudan	7	0.02
Bermuda	19	0.06	Guatemala	2	0.01	Mongolia	19	0.06	Surinam	3	0.01
Bhutan	5	0.02	Guernsey	20	0.07	Morocco	15	0.05	Swaziland	2	0.01
Bolivia	6	0.02	Guinea	2	0.01	Mozambique	11	0.04	Sweden	181	0.59
Bosnia	1	0	Guinea-Bissau	1	0	Myanmar(Burma)	56	0.18	Switzerland	222	0.72
Botswana	10	0.03	Guyana	4	0.01	N. Mariana	1	0	Syria	1	0
Brazil	324	1.06	Haiti	1	0	Namibia	8	0.03	Taiwan	221	0.72
British Virgin	47	0.15	Honduras	1	0	Nepal	5	0.02	Tajikistan	2	0.01
Brunei	14	0.05	Hong Kong	703	2.29	Netherlands	307	1	Tanzania	22	0.07
Bulgaria	11	0.04	Hungary	30	0.1	New Caledonia	2	0.01	Thailand	362	1.18
Burkina Faso	1	0	Iceland	6	0.02	New Zealand	121	0.39	Timor-Leste	1	0
C. African Rep	1	0	India	1,761	5.74	Nicaragua	4	0.01	Trinidad&Tob	1	0
Cambodia	20	0.07	Indonesia	276	0.9	Nigeria	43	0.14	Tunisia	3	0.01
Cameroon	2	0.01	Iran	16	0.05	North Korea	3	0.01	Turkey	174	0.57
Canada	1,705	5.56	Iraq	15	0.05	Norway	157	0.51	Turkmenistan	1	0
Cayman Islands	8	0.03	Ireland-Rep	111	0.36	Oman	124	0.4	Ukraine	30	0.1
Chad	1	0	Isle of Man	9	0.03	Pakistan	34	0.11	United Kingdom	1,366	4.45
Chile	82	0.27	Israel	114	0.37	Palestine	4	0.01	United States	5,750	18.75
China	3,962	12.92	Italy	359	1.17	Panama	7	0.02	Unknown	843	2.75
Colombia	36	0.12	Ivory Coast	1	0	Papua N Guinea	17	0.06	Uruguay	4	0.01
Costa Rica	1	0	Japan	1,784	5.82	Peru	27	0.09	Utd Arab Em	390	1.27
Croatia	9	0.03	Jersey	20	0.07	Philippines	287	0.94	Uzbekistan	49	0.16
Cuba	7	0.02	Jordan	30	0.1	Poland	74	0.24	Venezuela	48	0.16
Cyprus	17	0.06	Kazakhstan	67	0.22	Portugal	25	0.08	Vietnam	164	0.53
Czech Republic	25	0.08	Kenya	10	0.03	Puerto Rico	3	0.01	Yemen	2	0.01
Dem Rep Congo	4	0.01	Kuwait	79	0.26	Qatar	176	0.57	Zambia	14	0.05
Denmark	87	0.28	Kyrgyzstan	8	0.03	Rep of Congo	5	0.02	Zimbabwe	12	0.04
Total										**30,668**	**100**

Appendix A, continued
Panel 3: Distribution of All Strategic Alliances Participants by Nation

This table shows the distribution of strategic alliance events around the world from 2009 to 2015 across 131 countries where the participating firms operate.

						Strategic Alliances		
Nation	**N**	**%**	**Nation**	**N**	**%**	**Nation**	**N**	**%**
Afghanistan	3	0.02	Gibraltar	5	0.03	Panama	3	0.02
Algeria	5	0.03	Greece	94	0.65	Papua N Guinea	4	0.03
Angola	2	0.01	Guatemala	4	0.03	Paraguay	1	0.01
Argentina	13	0.09	Guyana	2	0.01	Peru	9	0.06
Armenia	1	0.01	Haiti	1	0.01	Philippines	35	0.24
Australia	322	2.22	Hong Kong	133	0.92	Poland	21	0.14
Austria	30	0.21	Hungary	12	0.08	Portugal	14	0.1
Azerbaijan	10	0.07	India	450	3.1	Puerto Rico	4	0.03
Bahamas	3	0.02	Indonesia	25	0.17	Qatar	112	0.77
Bahrain	73	0.5	Iran	6	0.04	Romania	8	0.06
Bangladesh	2	0.01	Iraq	9	0.06	Russian Fed	133	0.92
Barbados	2	0.01	Ireland-Rep	72	0.5	Saudi Arabia	217	1.5
Belarus	6	0.04	Isle of Man	4	0.03	Senegal	1	0.01
Belgium	45	0.31	Israel	133	0.92	Serbia	6	0.04
Bermuda	5	0.03	Italy	103	0.71	Seychelles	1	0.01
Bolivia	4	0.03	Japan	618	4.26	Singapore	71	0.49
Brazil	78	0.54	Jersey	1	0.01	Slovenia	4	0.03
British Virgin	1	0.01	Jordan	34	0.23	South Africa	36	0.25
Brunei	1	0.01	Kazakhstan	9	0.06	South Korea	180	1.24
Bulgaria	3	0.02	Kenya	2	0.01	Spain	96	0.66
Cambodia	2	0.01	Kuwait	58	0.4	Sri Lanka	10	0.07
Cameroon	2	0.01	Laos	2	0.01	St Kitts&Nevis	1	0.01
Canada	631	4.35	Latvia	1	0.01	Sudan	1	0.01
Cayman Islands	1	0.01	Lebanon	11	0.08	Supranational	1	0.01
Chile	36	0.25	Lithuania	1	0.01	Swaziland	1	0.01
China	771	5.32	Luxembourg	16	0.11	Sweden	142	0.98
Colombia	19	0.13	Malaysia	65	0.45	Switzerland	168	1.16
Costa Rica	3	0.02	Malta	3	0.02	Syria	1	0.01
Croatia	8	0.06	Mauritius	2	0.01	Taiwan	112	0.77
Cuba	4	0.03	Mexico	53	0.37	Thailand	37	0.26
Cyprus	9	0.06	Monaco	1	0.01	Tunisia	2	0.01
Czech Republic	2	0.01	Mongolia	4	0.03	Turkey	43	0.3
Dem Rep Congo	1	0.01	Montenegro	1	0.01	Ukraine	4	0.03
Denmark	113	0.78	Morocco	5	0.03	United Kingdom	757	5.22
Dominican Rep	2	0.01	Myanmar(Burma)	6	0.04	United States	6,620	45.65
Ecuador	5	0.03	Nepal	2	0.01	Unknown	90	0.62
Egypt	64	0.44	Netherlands	116	0.8	Uruguay	2	0.01
Falkland Is	1	0.01	New Zealand	46	0.32	Utd Arab Em	276	1.9
Fiji	1	0.01	Nigeria	9	0.06	Uzbekistan	2	0.01
Finland	83	0.57	North Korea	1	0.01	Venezuela	5	0.03
France	318	2.19	Norway	63	0.43	Vietnam	28	0.19
Georgia	1	0.01	Oman	42	0.29	Zambia	2	0.01
Germany	292	2.01	Pakistan	11	0.08	Zimbabwe	2	0.01
Ghana	5	0.03	Palestine	20	0.14			
Total							**14,502**	**100**

Appendix B: Variable Definitions

Variable Names	Variable Definitions
Abnormal Return	
Abnormal Bond Return	For US bond, we follow Warga and Welch (1993) and define risk-adjusted abnormal return for a given bond as a raw return net of the return of a bond index matched by rating and maturity. The raw return of a given bond is based on the first and last bond trading prices which are available during a given event window for US bonds. To fit a given event window, the abnormal bond return is compounded for each individual bond. For foreign bond, we obtained from Datastream daily prices and calculate raw return base on the first and last day of month [-1,0], [0,0], [0,1], then calculate cumulative abnormal returns (CARs). We use Barclay's global aggregate bond index for each country acquired from Datastream and match with each bond by country as benchmark. For both US and foreign firms, we include the accrued interest, and accordingly the return of bond index is calculated during the same time period. We report the results based on Three-month (-1, +1) window. At the deal-firm level, we use average abnormal bond returns, weighted by the amount outstanding of each bond divided by the total amount outstanding for all bonds for a given firm.
Abnormal Stock Return	We first estimate the parameters based in the window of (-210, -11) month prior to the event by following Adams and Mansi (2009), and then the cumulative abnormal monthly returns are calculated over a given event window. For US firms, we use CRSP equally weighted index as the market portfolio. For foreign firms, We obtain daily stock prices from Datastream, and MSCI country indics as benchmark index. We report the results based on Three-month (-1, +1) window.
Country Level Governance	
World Governance Index (WGI3)	The World Governance Index consists of six estimates - Control of Corruption, Government Effectiveness, Political Stability and Absence of Violence/Terrorism, Regulatory Quality, Rule of Law and Voice and Accountability - each gives the country's score on the aggregate indicator, in units of a standard normal distribution, i.e. raging from approximately -2.5 to 2.5. We choose three (Government effectiveness, Regulatory Quality, and Rule of Law) that we posit are closely related to bondholders interest. We average the three estimates for a given country and form variable WGI3. Detailed documentation of the WGI, interactive tools for exploring the data, and full access to the underlying source data available at www.govindicators.org.
WGI (residual on Trust)	The residuals from regressing WGI on Trust.
Difference in WGI (WGI_diff)	The difference in WGI between the participant firm nation and JVSA firm nation within a cooperative activity. If the JVSA nations have more than two countries, the difference will be WGI of each participant minus the average of WGI among the JVSA nations within a cooperative activity.
Antidirector Rights Index (ADRI)	The "antidirector rights index" was introduced by La Porta et al as a measure of shareholder protection ("Law and Finance." 1998, Journal of Political Economy 106:1113--55). The index is formed by adding 1 when: (1) the country allows shareholders to mail their proxy vote to the firm; (2) shareholders are not required to deposit their shares prior to the General Shareholders' Meeting; (3) cumulative voting or proportional representation of minorities in the board of directors is allowed; (4) an oppressed minorities mechanism is in place; (5) the minimum percentage of share capital that entitles a shareholder to call for an Extraordinary Shareholders' Meeting is less than or equal to 10 percent (the sample median); or (6) shareholders have preemptive rights that can only be waved by a shareholders' vote. The index ranges from 0 to 6. We adopt the corrected ADRI (2005 values) published by Holger Spamann (2010).
ADRI (residual)	The residuals from regressing ADRI on the three Hofstede Culture dimensions -Individualism, Uncertainty Avoidance, Long Term Orientation, Masculinity, and Power Distance, respectively.
Strength of Legal Rights Index (SLRI)	Strength of legal rights index measures the degree to which collateral and bankruptcy laws protect the rights of borrowers and lenders and thus facilitate lending. The index ranges from 0 to 12, with higher scores indicating that these laws are better designed to expand access to credit. Data year available: 2013-2015. Since the data does not change much during 2013-2015, we adopt 2013 value as proxy for year 2009-2012. Data source: World Bank, Doing Business project (http://www.doingbusiness.org).
Difference in SLRI (SLRI_diff)	The difference in SLRI between the participant firm nation and JVSA firm nation within a cooperative activity. If the JVSA nations have more than two countries, the difference will be SLRI of each participant minus the average of SLRI among the JVSA nations within a cooperative activity.

Variable Names	Variable Definitions
Culture	
Hofstede Culture Dimensions	We adopt Hofstede's culture dimensions - Individualism, Uncertainty Avoidance, Long Term Orientation, Masculinity, and Power Distance - each index ranges a score from 0-100. **Individualism (IDV)** is the opposite of Collectivism. Individualism stands for a society in which the ties between individuals are loose: a person is expected to look after himself or herself and his or her immediate family only. Collectivism stands for a society in which people from birth onwards are integrated into strong, cohesive in-groups, which continue to protect them throughout their lifetime in exchange for unquestioning loyalty. **Uncertainty Avoidance (UAI)** is defined as the extent to which the members of institutions and organizations within a society feel threatened by uncertain, unknown, ambiguous, or unstructured situations. **Long Term Orientation (LTO)** is the opposite of Short Term Orientation. Long Term Orientation stands for a society which fosters virtues oriented towards future rewards, in particular adaptation, perseverance and thrift. Short Term orientation stands for a society which fosters virtues related to the past and present, in particular respect for tradition, preservation of "face", and fulfilling social obligations. **Masculinity (MAS)** is the opposite of Femininity. Masculinity stands for a society in which social gender roles are clearly distinct: men are supposed to be assertive, tough, and focused on material success; women are supposed to be more modest, tender, and concerned with the quality of life. **Power Distance (PDI)** is defined as the extent to which the less powerful members of institutions and organizations within a society expect and accept that power is distributed unequally.
Trust	World Values Survey (2005-2009), V23; World Values Survey (2010-2014), V24 - "Generally speaking, would you say that most people can be trusted or that you need to be very careful in dealing with people?" Following La Porta et al. (1997), the percentage of people answering "yes" is our measure of trust in a country.
Synergy Effect	
Geographical Distance	Calculated as the logarithm of geographical distance between headquarters of two partners within a cooperative activity (JV/SA). For foreign deals, we use capital cities of each participants as locations of headquarters. For a cooperative activity with more than two partners, we calculate the median value of distances between any of two combination of partners.
Business Proximity	Defined as an indicator variable which takes the value of one when a given participating firm has the same two-digit of SIC code as that of the cooperative activity.
Financial Constraint Effect	
Low Dividends Payout	Defined as an indicator variable, which takes the value of one if the firm's dividend yield is below the sample average, and zero otherwise. Because US firms and foreign firms have significantly different dividend pattern, we calculated the average dividend yield grouped by US dummy variable and alliance year.
Real Option effect	
Industry Concentration	Defined as an indicator variable which takes a value of one if the industry of cooperative activities has a HHI more than 0.25 (HHI above 0.25 is indentified as an concentrated industry), and zero otherwise. HHI is calculated by event year, industry, and country.
Uncertainty of Industry Investment	This measure is estimated on industry and country basis. The first step of estimation is to sort all COMPUSTAT firms into different industries according to two-digit SIC codes and country according to country code, and then calculate each firm's R&D expenses/Total Assets. The second step is for a given year, industry and country, we calculate the standard deviation of the ratio for all the firms in the same industry and same country. Finally a mean value of standard deviations within three years prior to cooperative activities is used.

Appendix B, continued

Variable Names	Variable Definitions
Deal Characteristics	
Number of Prticipants	Calculated as the number of participating firms that join in a given cooperative activity.
Horizontal Dummy	Defined as an indicator variable which takes a value of one if all partners in a given cooperative activity have the same first two-digit SIC code, and zero otherwise.
Foreign Dummy	Defined as an indicator variable which takes a value of one if at least one partnering firm in a given cooperative activity is from foreign countries, and zero otherwise.
Equal Ownership	Defined as an indicator variable which takes a value of one if each participant in a given joint venture takes the same shares of stakes in the new entity, and zero otherwise.
High-Tech Dummy	Defined as an indicator variable which takes a value of one if a cooperative activity is involved in high-tech industries, and zero otherwise. We follow Carpenter and Petersen (2002) to identify hightech industries by using first three-digit SIC code of 283, 357, 361, 362, 366, 367, 382, 384, 386, and 387.
Firm Characteristics	
Total Assets	Book value of participating firm assets.
Leverage	Defined as total debt divided by total market value of assets, where market value of assets is the sum of total debt and market value of equity.
Market to Book	Defined as the sum of the market value of equity and the book value of debt divided by the book value of assets.
Bond Characteristics	
Bond Size	Defined as the aggregate value of all individual bonds outstanding.
Credit Rating	To define deal-firm level bond credit rating, we utilize the following procedures (i) first use Moody's rating for each individual bond with the highest rating Aaa to the lowest rating D, (ii) then follow Klock et al. (2005) in converting each letter rating to a numerical rating with the corresponding number from 22 to 1, (i.e. Aaa converts to 22, Aa1 converts to 21, …, and D converts to 1), (iii) use the amount outstanding of each individual bond as the weight to find firm-level bond rating.
Coupon	Refers to the annual interest rate on bond contract on individual bond level. For deal-firm level, it is defined as weighted average coupon of all bonds outstanding for a given firm, with the weight being the amount outstanding for each bond divided by total amount outstanding for all bonds of the firm.
Time to Maturity	Calculated as the length of time from the present to time when the bond matures on individual bond level. For deal-firm level, it is defined as the weighted average time to maturity of all bonds outstanding for a given firm, with the weight being the amount outstanding for each bond divided by the total amount outstanding for all bonds of the firm.
Other control variables	
Economy	Developed economies, and developing economies. Data source: Development Policy and Analysis Division (DPAD) of the Department of Economic and Social Affairs of the United Nations Secretariat (UN/DESA).
JV_dum	Indicator variable equal to one if the cooperative activity is joint venture, and zero if strategic alliance
Multi_dum	Indicator variable equal to one if the participanting firm participates more than 6 times within our sample period, and zero otherwise.

Appendix C: Additional Robustness Tests

This table provides the results of robustness tests on bondholder wealth effects. Panel A reports results with Fama-French 49 industry and year fixed effect. Panel B reports results based on each firm appearing once in the sample. Six different regressions for foreign firms using different proxies are reported. Variable definitions are summarized in Appendix. The dependent variable is the firm-level three-month cumulative abnormal bond return. Robust standard errors are used to estimate statistical significance and P-values are reported in parenthesis. The symbols (*), (**) and (***) denote significance at the 10, 5 and 1 percent levels, respectively. For each regression, synergy, alleviation of financial constraints, real option, deal characteristics, firm characteristics, and bond characteristics are included but for abbreviation, not reported.

	Panel A						Panel B					
	Reg 1	Reg 2	Reg 3	Reg 4	Reg 5	Reg 6	Reg 1	Reg 2	Reg 3	Reg 4	Reg 5	Reg 6
Country Level Governance												
WGI3	-1.006***	-0.982***	-0.719*	-0.934**	-1.032***	0.115	-1.478**	-1.511**	-1.264*	-1.503**	-1.290*	0.053
	(0.007)	(0.008)	(0.074)	(0.016)	(0.009)	(0.707)	(0.025)	(0.022)	(0.065)	(0.024)	(0.074)	(0.931)
SLRI (residual on PDI)	0.235***						0.288***					
	(0.000)						(0.004)					
SLRI (residual on IDV)		0.223***						0.313***				
		(0.000)						(0.007)				
SLRI (residual on UAI)			0.247***						0.319***			
			(0.000)						(0.002)			
SLRI (residual on LTO)				0.206***						0.302**		
				(0.002)						(0.018)		
Strength of Legal Rights Index (SLRI)					0.228***						0.275***	
					(0.000)						(0.004)	
ADRI						-0.331						-0.400
						(0.115)						(0.245)
Culture												
Trust	0.021**	0.017**	0.020***	0.017**	0.017**	0.006	0.004	0.005	0.007	0.006	0.009	-0.002
	(0.021)	(0.020)	(0.008)	(0.023)	(0.026)	(0.519)	(0.836)	(0.729)	(0.637)	(0.673)	(0.492)	(0.881)
Power Distance	-0.021**						-0.043**					
	(0.040)						(0.019)					
Individualism		0.022***						0.028**				
		(0.008)						(0.023)				
Uncertainty Avoidance			-0.014**						-0.024**			
			(0.048)						(0.036)			
Long Term Orientation				-0.023***						-0.030***		
				(0.000)						(0.002)		
Masculinity					-0.002	0.005					0.011	0.016*
					(0.695)	(0.242)					(0.217)	(0.071)
Intercept	1.420	-0.950	1.268	1.985	-0.706	0.553	1.998	-2.330	1.138	1.412	-3.119*	-0.913
	(0.331)	(0.386)	(0.357)	(0.124)	(0.544)	(0.725)	(0.406)	(0.168)	(0.555)	(0.420)	(0.090)	(0.721)
Number of observations	1,510	1,510	1,510	1,510	1,510	1,508	471	471	471	471	471	469
Adjusted R2	0.085	0.084	0.086	0.084	0.084	0.076	0.054	0.055	0.056	0.054	0.058	0.034

Table 1: Distribution of Participants and Cooperative Activities

This table shows an overview of 3,910 announcements of cooperative activities initiated by 4,889 event-firm level participants in the period of 2009 through 2015. Data of cooperative activities are collected from SDC. We require 3-month bond CAR not missing. Panel A reports event level number of deals by year. Panel B reports event-firm level number of firms by country.

Panel A: Event level distribution by annoucement year								
Full Sample			Joint Ventures			Strategic Alliances		
Year	N	%	Year	N	%	Year	N	%
2009	481	12.30	2009	268	10.55	2009	213	15.55
2010	331	8.47	2010	238	9.37	2010	93	6.79
2011	753	19.26	2011	511	20.12	2011	242	17.66
2012	744	19.03	2012	464	18.27	2012	280	20.44
2013	784	20.05	2013	467	18.39	2013	317	23.14
2014	576	14.73	2014	390	15.35	2014	186	13.58
2015	241	6.16	2015	202	7.95	2015	39	2.85
Total	**3,910**	**100**	**Total**	**2,540**	**100**	**Total**	**1,370**	**100**

Panel B: Event-firm level distribution by country								
Full Sample			Joint Ventures			Strategic Alliances		
Nation	N	%	Nation	N	%	Nation	N	%
Australia	155	3.17	Australia	128	4.04	Australia	27	1.57
Belgium	33	0.67	Belgium	22	0.69	Belgium	11	0.64
Brazil	50	1.02	Brazil	40	1.26	Brazil	10	0.58
Canada	234	4.79	Canada	168	5.30	Canada	66	3.84
France	329	6.73	France	216	6.81	France	113	6.58
Germany	310	6.34	Germany	217	6.84	Germany	93	5.41
Hong Kong	67	1.37	Hong Kong	58	1.83	Hong Kong	9	0.52
Israel	9	0.18	Israel	6	0.19	Israel	3	0.17
Italy	105	2.15	Italy	82	2.59	Italy	23	1.34
Japan	1136	23.24	Japan	859	27.09	Japan	277	16.12
Malaysia	25	0.51	Malaysia	22	0.69	Malaysia	3	0.17
Netherlands	119	2.43	Netherlands	83	2.62	Netherlands	36	2.10
Norway	72	1.47	Norway	60	1.89	Norway	12	0.70
Qatar	35	0.72	Qatar	17	0.54	Qatar	18	1.05
Russian Fed	141	2.88	Russian Fed	117	3.69	Russian Fed	24	1.40
Singapore	122	2.50	Singapore	111	3.50	Singapore	11	0.64
South Korea	67	1.37	South Korea	52	1.64	South Korea	15	0.87
Sweden	61	1.25	Sweden	36	1.14	Sweden	25	1.46
Switzerland	71	1.45	Switzerland	36	1.14	Switzerland	35	2.04
Thailand	32	0.65	Thailand	25	0.79	Thailand	7	0.41
Turkey	12	0.25	Turkey	7	0.22	Turkey	5	0.29
United Kingdom	315	6.44	United Kingdom	174	5.49	United Kingdom	141	8.21
United States	1351	27.63	United States	614	19.36	United States	737	42.90
Utd Arab Em	38	0.78	Utd Arab Em	21	0.66	Utd Arab Em	17	0.99
Total	**4,889**	**100**	**Total**	**3,171**	**100**	**Total**	**1,718**	**100**

Table 2: Abnormal Bond and Stock Returns around JV and SA Deal Announcements

This table shows summary statistics of abnormal returns of joint ventures and strategic alliances based on 3,910 announcements by 3,450 foreign event-firms and 1,439 US event-firms. We require 3-month bond CAR not missing. Panel A shows the mean and median of CARs of different windows for foreign participants. Panel B shows the mean and median of CARs of different windows for US participants. We report CARs of bond returns in the 1-month (0, 0), 2-month (-1, 0), and 3-month (-1, +1) event windows, CARs of stock returns in 1-month (0, 0), 2-month (-1, 0), and 3-month (-1, +1), 1-day (0, 0), 2-day (-1, 0), and 3-day (-1, +1) event windows, where month 0 is the announcement month and day 0 is the announcement day.

Panel A: Foreign Firms CARs											
	Full Sample				Joint Ventures				Strategic Alliances		
Event Window				Abnormal Return for Bondholders (%)							
Monthly	N	Mean	Median	t Value	N	Mean	Median	t Value	N	Mean	Median	t Value
(0, 0)	3,524	0.54	0.34	15.29	2,557	0.56	0.35	14.11	967	0.48	0.31	6.48
(-1, 0)	3,482	1.08	0.69	19.35	2,530	1.11	0.69	17.68	952	1.01	0.67	8.51
(-1, +1)	3,450	1.53	0.98	22.96	2,503	1.52	1.00	20.70	947	1.55	0.95	10.65
Daily											
(0, 0)	2,603	0.02	0.02	0.81	1874	0.10	0.06	2.98	729	-0.17	-0.15	-3.21
(-1, 0)	2,600	0.05	-0.02	1.23	1872	0.11	0.03	2.47	728	-0.12	-0.21	-1.58
(-1, +1)	2,600	0.05	-0.07	0.82	1872	0.12	0.00	1.71	728	-0.14	-0.18	-1.57
				Abnormal Return for Stockholders (%)							
Monthly	N	Mean	Median	t Value	N	Mean	Median	t Value	N	Mean	Median	t Value
(0, 0)	3,044	0.57	0.46	3.42	2,209	0.48	0.41	2.51	835	0.79	0.59	2.41
(-1, 0)	3,029	0.62	0.36	2.60	2,196	0.33	0.35	1.23	833	1.37	0.44	2.81
(-1, +1)	2,989	0.64	0.73	2.19	2,164	0.11	0.41	0.34	825	2.02	1.55	3.36
Daily											
(0, 0)	3,048	0.19	0.04	4.10	2,212	0.18	0.05	3.38	836	0.19	0.00	2.35
(-1, 0)	3,048	0.26	0.07	4.67	2,212	0.25	0.04	3.79	836	0.29	0.17	2.77
(-1, +1)	3,048	0.34	0.04	4.99	2,212	0.35	0.03	4.27	836	0.32	0.08	2.58

Panel B: US Firms CARs											
	Full Sample				Joint Ventures				Strategic Alliances		
Event Window				Abnormal Return for Bondholders (%)							
Monthly	N	Mean	Median	t Value	N	Mean	Median	t Value	N	Mean	Median	t Value
(0, 0)	1,411	0.52	0.48	13.20	652	0.63	0.61	10.53	759	0.43	0.36	8.19
(-1, 0)	1,433	0.97	0.86	17.12	666	1.09	0.95	12.01	767	0.88	0.79	12.26
(-1, +1)	1,439	1.38	1.26	20.13	668	1.46	1.30	13.56	771	1.31	1.23	14.96
				Abnormal Return for Stockholders (%)							
Monthly	N	Mean	Median	t Value	N	Mean	Median	t Value	N	Mean	Median	t Value
(0, 0)	3,085	1.14	0.22	3.19	1,320	0.42	-0.15	1.25	1,765	1.69	0.47	2.94
(-1, 0)	3,085	1.02	0.24	2.62	1,320	0.74	-0.13	1.39	1,765	1.22	0.46	2.23
(-1, +1)	3,085	1.05	0.24	1.49	1,320	-0.11	-0.36	-0.17	1,765	1.92	0.57	1.69
Daily											
(0, 0)	3,135	0.68	0.09	6.70	1,335	0.41	0.01	4.23	1,800	0.87	0.16	5.45
(-1, 0)	3,135	0.78	0.12	6.89	1,335	0.51	0.02	4.32	1,800	0.97	0.19	5.55
(-1, +1)	3,135	0.90	0.15	6.68	1,335	0.58	0.02	4.00	1,800	1.14	0.25	5.46

Table 3: Descriptive Statistics of Hypotheses and Control Variables

This table presents the mean and median of the event-firm variables related to (i) hypotheses, (ii) Country, deal, firm, and bond characteristics based on 2,724 announcements by 1,981 foreign event-firms and 1,089 US event-firms (which sum up to a total of 3,070 event-firms). For the period 2009-2015. We require 3-month bond CAR, Total Assets, Leverage, Market to Book, and Credit Rating not missing. Panel A presents all the hypotheses variables, and Panel B presents all control variables. The table reports the descriptive statistics for the full sample, joint ventures, and strategic alliances separately. Variable definitions are summarized in Appendix B. At the event-firm level, we calculate the weighted average of bond rating, coupon rate, and time to maturity using amounts outstanding as the weights.

Panel A																	
Variable	Full Sample						Joint Ventures						Strategic Alliances					
	Foreign			US			Foreign			US			Foreign			US		
	N	Mean	Median	N	Mean	Median	N	Mean	Median	N	Mean	Median	N	Mean	Median	N	Mean	Median
3-month CAR -bond	1,981	1.31	0.93	1,089	1.26	1.24	1,408	1.32	0.94	472	1.38	1.29	573	1.29	0.90	617	1.16	1.20
3-month CAR -stock	1,926	0.38	0.62	1,080	0.28	0.70	1,366	0.03	0.53	467	-0.07	0.65	560	1.25	0.88	613	0.54	0.81
WGI3	1,981	1.41	1.37	1,089	1.50	1.52	1,408	1.39	1.37	472	1.50	1.52	573	1.43	1.42	617	1.50	1.52
WGI	1,981	1.28	1.31	1,089	1.25	1.26	1,408	1.27	1.26	472	1.24	1.24	573	1.30	1.31	617	1.25	1.26
Difference in WGI	1,968	0.72	0.34	1,083	0.64	0.00	1,401	0.73	0.28	471	0.63	0.00	567	0.71	0.48	612	0.64	0.00
ADRI	1,951	4.60	5.00	1,089	2.00	2.00	1,388	4.59	5.00	472	2.00	2.00	563	4.63	5.00	617	2.00	2.00
Strength of Legal Rights Index	1,981	5.18	4.00	1,089	11.00	11.00	1,408	5.17	4.00	472	11.00	11.00	573	5.19	4.00	617	11.00	11.00
Difference in SLRI	1,966	-0.17	0.00	1,080	3.20	2.00	1,401	-0.16	0.00	470	3.40	2.50	565	-0.19	0.00	610	3.04	1.00
Individualism	1,981	61.74	67.00	1,089	91.00	91.00	1,408	60.40	67.00	472	91.00	91.00	573	65.02	69.00	617	91.00	91.00
Uncertainty Avoidence	1,981	70.93	86.00	1,089	46.00	46.00	1,408	72.15	86.00	472	46.00	46.00	573	67.95	75.00	617	46.00	46.00
Long Term Orientation	1,981	68.46	73.55	1,089	25.69	25.69	1,408	68.84	82.87	472	25.69	25.69	573	67.53	63.48	617	25.69	25.69
Masculinity	1,981	68.51	66.00	1,089	62.00	62.00	1,408	69.32	66.00	472	62.00	62.00	573	66.53	66.00	617	62.00	62.00
Power Distance	1,981	49.63	54.00	1,089	40.00	40.00	1,408	50.32	54.00	472	40.00	40.00	573	47.91	54.00	617	40.00	40.00
Trust	1,950	36.52	35.90	1,089	35.66	34.80	1,384	36.78	35.90	472	35.67	34.80	566	35.88	35.90	617	35.65	34.80
Distance (miles)	1,964	2,826	2,777	1,078	2,833	455	1,397	2,768	2,280	465	3,411	3,781	567	2,970	3,595	613	2,394	1.00
log(Distance)	1,964	5.89	7.93	1,078	4.38	6.12	1,397	5.82	7.73	465	5.04	8.24	567	6.07	8.19	613	3.88	0.00
Business Proximity	1,981	0.48	0.00	1,089	0.45	0.00	1,408	0.49	0.00	472	0.50	0.50	573	0.45	0.00	617	0.42	0.00
Low Dividend Payout	1,958	0.51	1.00	1,082	0.56	1.00	1,390	0.52	1.00	469	0.55	1.00	568	0.48	0.00	613	0.57	1.00
Industry Concentration	1,905	0.47	0.00	1,084	0.91	1.00	1,355	0.46	0.00	468	0.86	1.00	550	0.49	0.00	616	0.96	1.00
Uncert. of Industry Investment	1,609	0.11	0.03	1,062	0.98	0.38	1,131	0.10	0.02	450	0.88	0.21	478	0.14	0.04	612	1.05	0.47

| Variable | Full Sample | | | | | | Joint Ventures | | | | | | Strategic Alliances | | | | | |
| | Foreign | | | US | | | Foreign | | | US | | | Foreign | | | US | | |
	N	Mean	Median	N	Mean	Median	N	Mean	Median	N	Mean	Median	N	Mean	Median	N	Mean	Median
Number of Participants	1,981	2.32	2.00	1,089	2.15	2.00	1,408	2.38	2.00	472	2.18	2.00	573	2.16	2.00	617	2.13	2.00
Horizontal Dummy	1,981	0.36	0.00	1,089	0.37	0.00	1,408	0.35	0.00	472	0.35	0.00	573	0.41	0.00	617	0.38	0.00
Foreign Dummy	1,981	1.00	1.00	1,089	0.53	1.00	1,408	1.00	1.00	472	0.60	1.00	573	1.00	1.00	617	0.47	0.00
Equal Ownership	1,359	0.54	1.00	456	0.70	1.00	1,359	0.54	1.00	456	0.70	1.00	-	-	-	-	-	-
High Tech Dummy	1,981	0.12	0.00	1,089	0.13	0.00	1,408	0.09	0.00	472	0.06	0.00	573	0.20	0.00	617	0.18	0.00
Total Assets ($ million)	1,981	81,062	51,067	1,089	75,342	29,676	1,408	79,504	46,323	472	84,748	26,197	573	84,891	61,487	617	68,147	32,572
log (Total Assets)	1,981	10.65	10.84	1,089	10.21	10.30	1,408	10.61	10.74	472	10.13	10.17	573	10.75	11.03	617	10.28	10.39
Leverage	1,981	0.29	0.26	1,089	0.27	0.24	1,408	0.30	0.27	472	0.30	0.26	573	0.27	0.25	617	0.25	0.23
Market to book	1,981	1.84	1.34	1,089	1.79	1.56	1,408	1.72	1.29	472	1.58	1.42	573	2.13	1.47	617	1.95	1.76
Bond Size ($ million)	1,981	6,351	3,663	1,089	7,654	4,600	1,408	6,063	3,299	472	6,413	4,265	573	7,060	4,400	617	8,603	5,033
log (Bond Size)	1,981	15.02	15.11	1,089	15.14	15.34	1,408	14.97	15.01	472	15.01	15.27	573	15.14	15.30	617	15.24	15.43
Credit Rating	1,981	15.10	15.00	1,089	14.99	15.00	1,408	14.97	15.00	472	14.31	14.00	573	15.43	16.00	617	15.52	16.00
Coupon	1,981	3.41	3.40	1,089	5.12	5.11	1,408	3.37	3.19	472	5.35	5.40	573	3.51	3.50	617	4.94	5.00
Time to Maturity (year)	1,968	6.72	5.52	1,089	9.37	8.71	1,402	6.62	5.55	472	9.58	8.63	566	6.98	5.23	617	9.22	8.82
Economy	1,981	0.93	1.00	1,089	1.00	1.00	1,408	0.92	1.00	472	1.00	1.00	573	0.95	1.00	617	1.00	1.00
Alliances in Same Nation	1,981	0.21	0.00	1,089	0.45	0.00	1,408	0.22	0.00	472	0.37	0.00	573	0.19	0.00	617	0.51	1.00
multiple participation	1,981	0.55	1.00	1,089	0.58	1.00	1,408	0.55	1.00	472	0.49	0.00	573	0.57	1.00	617	0.64	1.00

Table 4: Correlation Matrix

This table shows the correlation matrix for main variables in foreign participants only, including bond abnormal returns, stock abnormal return, measures of country level governance, measures of culture, synergy measures, measures of alleviation of financial constraints, and measures of real option benefits in multivariate regressions. We require 3-month bond CAR, Total Assets, Leverage, Market to Book, and Credit Rating not missing. Variable definitions are provided in Appendix B.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
3-month CAR -bond	1																		
3-month CAR -stock	0.12	1.00																	
WGI3	0.01	-0.03	1.00																
Difference in WGI	0.00	0.03	0.15	1.00															
ADRI	-0.03	0.00	-0.21	0.04	1.00														
Strength of Legal Rights Index	0.06	-0.03	0.45	-0.04	-0.86	1.00													
Difference in SLRI	0.04	-0.02	0.22	0.49	-0.49	0.54	1.00												
Individualism	0.05	-0.04	0.42	0.00	-0.72	0.78	0.43	1.00											
Uncertainty Avoidance	-0.09	0.01	-0.50	-0.03	0.63	-0.76	-0.45	-0.70	1.00										
Long Term Orientation	-0.08	0.03	-0.23	0.07	0.81	-0.85	-0.48	-0.81	0.79	1.00									
Masculinity	-0.11	0.01	-0.22	-0.05	0.32	-0.25	-0.15	-0.44	0.57	0.53	1.00								
Power Distance	-0.04	0.03	-0.58	-0.03	0.49	-0.59	-0.31	-0.69	0.63	0.47	0.18	1.00							
Trust	0.05	0.01	0.50	0.07	-0.13	0.12	0.03	0.05	-0.24	-0.05	-0.24	-0.55	1.00						
Distance (miles)	-0.02	0.04	0.01	0.26	0.01	0.00	0.22	0.00	0.00	0.00	0.00	0.00	0.00	1.00					
log(Distance)	-0.01	0.05	-0.01	0.40	0.17	-0.19	0.17	-0.10	0.08	0.17	-0.04	0.07	-0.01	0.82	1.00				
Business Proximity	0.03	0.02	0.05	0.03	-0.03	0.04	0.01	0.10	-0.11	-0.09	-0.15	-0.07	0.05	-0.01	0.02	1.00			
Low Dividend Payout	-0.02	0.00	-0.05	-0.04	-0.01	0.00	-0.04	-0.14	0.17	0.09	0.25	0.09	-0.01	0.00	-0.04	-0.04	1.00		
Industry Concentration	-0.06	0.01	0.05	-0.03	-0.30	0.33	0.18	0.12	-0.04	-0.15	0.37	-0.14	-0.10	-0.02	-0.14	-0.07	0.18	1.00	
Uncert. of Industry Investment	-0.01	0.02	0.09	0.01	-0.42	0.40	0.27	0.35	-0.30	-0.38	-0.13	-0.23	-0.01	0.04	-0.02	0.09	-0.06	0.21	1.00

Table 5: Baseline Regressions of Bondholder Returns for Foreign Participants in JV and SA

This table provides the results of baseline cross-sectional OLS regressions for bondholder wealth effects around the announcements of joint ventures and strategic alliances of foreign firms. Six regressions using different proxies are reported. Variable definitions are summarized in Appendix. The dependent variable is the firm-level three-month cumulative abnormal bond return. Robust standard errors are used to estimate statistical significance and p-values are reported in brackets. The symbols (*), (**) and (***) denote significance at the 10, 5 and 1 percent levels, respectively.

	Reg 1	Reg 2	Reg 3	Reg 4	Reg 5	Reg 6
Country Level Governance						
WGI3	-1.215***	-1.206***	-0.793*	-1.238***	-1.121**	-0.071
	(0.007)	(0.007)	(0.087)	(0.005)	(0.027)	(0.860)
SLRI (residual on PDI)	0.239***					
	(0.000)					
SLRI (residual on IDV)		0.244***				
		(0.000)				
SLRI (residual on UAI)			0.263***			
			(0.000)			
SLRI (residual on LTO)				0.239***		
				(0.000)		
Strength of Legal Rights Index (SLRI)					0.212***	
					(0.000)	
ADRI						-0.366*
						(0.063)
SLRI_diff	-0.001	-0.004	0.003	-0.005	-0.005	0.029
	(0.978)	(0.882)	(0.913)	(0.868)	(0.855)	(0.310)
WGI_diff	0.069	0.073	0.072	0.074	0.074	-0.005
	(0.348)	(0.325)	(0.330)	(0.318)	(0.316)	(0.943)
Culture						
Trust	0.029***	0.022***	0.027***	0.023***	0.024***	0.013*
	(0.010)	(0.002)	(0.000)	(0.001)	(0.000)	(0.099)
Power Distance	-0.019*					
	(0.091)					
Individualism		0.019**				
		(0.035)				
Uncertainty Avoidance			-0.010			
			(0.179)			
Long Term Orientation				-0.021***		
				(0.001)		
Masculinity					0.002	0.009*
					(0.629)	(0.070)
Synergy						
Business Proximity	-0.019	-0.021	-0.007	-0.028	-0.026	0.001
	(0.888)	(0.878)	(0.955)	(0.830)	(0.843)	(0.993)
Geographic Distance	0.001	0.001	0.003	-0.000	0.000	-0.002
	(0.958)	(0.950)	(0.843)	(0.987)	(1.000)	(0.932)
Alleviation of Financial Constraints						
Low Dividends Payout	0.191*	0.180	0.130	0.202*	0.198*	0.217*
	(0.098)	(0.120)	(0.253)	(0.084)	(0.090)	(0.068)

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Continued

Real Option

Uncertainty of Industry Investment	-0.437*	-0.436*	-0.381	-0.447*	-0.446*	-0.380
	(0.079)	(0.074)	(0.137)	(0.067)	(0.069)	(0.105)
Industry Concentration	0.048	-0.006	0.029	0.023	-0.002	0.007
	(0.732)	(0.969)	(0.840)	(0.873)	(0.992)	(0.966)

Deal Charateristics

Number of Participants	-0.053	-0.054	-0.055	-0.054	-0.054	-0.061
	(0.398)	(0.387)	(0.379)	(0.390)	(0.391)	(0.325)
Horizontal Dummy	-0.135	-0.125	-0.117	-0.130	-0.130	-0.086
	(0.372)	(0.416)	(0.443)	(0.392)	(0.395)	(0.569)
High Tech Dummy	0.110	0.108	0.094	0.106	0.108	0.012
	(0.574)	(0.580)	(0.630)	(0.590)	(0.582)	(0.950)

Firm Charateristics

Total Asset	-0.000	-0.017	0.010	-0.029	-0.028	-0.040
	(0.996)	(0.858)	(0.914)	(0.773)	(0.767)	(0.674)
Leverage	-0.229	-0.352	-0.347	-0.302	-0.334	-0.400
	(0.641)	(0.470)	(0.475)	(0.533)	(0.489)	(0.418)
Market to Book	-0.054	-0.051	-0.036	-0.057	-0.056	-0.050
	(0.441)	(0.468)	(0.602)	(0.408)	(0.417)	(0.472)

Bond charateristics

Bond Size	0.036	0.053	0.034	0.060	0.060	0.068
	(0.690)	(0.567)	(0.705)	(0.529)	(0.519)	(0.467)
Credit Rating	0.052**	0.053**	0.049*	0.054**	0.054**	0.051**
	(0.044)	(0.044)	(0.058)	(0.038)	(0.038)	(0.049)
Coupon	0.308***	0.323***	0.347***	0.307***	0.312***	0.357***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Time to Maturity	-0.015	-0.016	-0.009	-0.016	-0.018	-0.012
	(0.585)	(0.565)	(0.745)	(0.555)	(0.528)	(0.664)

Other Control Variables

Economy	0.098	0.224	-0.671	-0.111	-0.194	-0.429
	(0.866)	(0.722)	(0.281)	(0.833)	(0.737)	(0.446)
Multi Dummy	-0.052	-0.052	-0.107	-0.045	-0.046	-0.082
	(0.702)	(0.703)	(0.438)	(0.737)	(0.732)	(0.547)
JV Dummy	0.048	0.061	0.012	0.073	0.071	0.079
	(0.732)	(0.667)	(0.933)	(0.605)	(0.613)	(0.575)
Intercept	1.199	-1.004	0.910	1.819	-1.113	0.311
	(0.472)	(0.390)	(0.519)	(0.157)	(0.367)	(0.842)
Number of observations	1,510	1,510	1,510	1,510	1,510	1,508
Adjusted R2	0.075	0.075	0.079	0.075	0.075	0.064

Table 6: Same-Nation versus Multiple-Nation Deals

This table provides the results of cross-sectional OLS regressions for bondholder wealth effects for the same-nation deals and multiple-nation deals around the announcements of Joint Ventures and Strategic Alliances of foreign firms. Six different regressions using different proxies are reported. Variable definitions are summarized in Appendix. The dependent variable is the firm-level three-month cumulative abnormal bond return. Robust standard errors are used to estimate statistical significance and p-values are reported in parenthesis. The symbols (*), (**) and (***) denote significance at the 10, 5 and 1 percent levels, respectively. For each regression, deal characteristics, firm characteristics, and bond characteristics are included but for abbreviation, coefficients are not reported.

	Same Nation						Different Nation					
	Reg 1	Reg 2	Reg 3	Reg 4	Reg 5	Reg 6	Reg 1	Reg 2	Reg 3	Reg 4	Reg 5	Reg 6
Country Level Governance												
WGI3	-5.040***	-5.028***	-3.861**	-4.613***	-5.141***	-1.538	-0.573	-0.574	-0.272	-0.666	-0.458	0.220
	(0.001)	(0.001)	(0.011)	(0.001)	(0.001)	(0.310)	(0.193)	(0.189)	(0.546)	(0.126)	(0.343)	(0.579)
SLRI (residual on PDI)	0.792***						0.146**					
	(0.000)						(0.020)					
SLRI (residual on IDV)		0.771***						0.156**				
		(0.000)						(0.016)				
SLRI (residual on UAI)			0.868***						0.166***			
			(0.000)						(0.008)			
SLRI (residual on LTO)				0.632***						0.174**		
				(0.000)						(0.011)		
Strength of Legal Rights Index (SLRI)					0.774***						0.121**	
					(0.000)						(0.045)	
ADRI						-1.570**						-0.277
						(0.032)						(0.182)
WGI_diff	0.014	0.011	0.022	0.010	0.012	0.077	0.003	0.001	0.006	-0.001	-0.001	0.019
	(0.820)	(0.864)	(0.708)	(0.870)	(0.851)	(0.255)	(0.929)	(0.971)	(0.854)	(0.986)	(0.985)	(0.549)
SLRI_diff	-0.098	-0.082	-0.138	-0.093	-0.085	-0.127	0.058	0.060	0.063	0.062	0.061	0.013
	(0.513)	(0.591)	(0.366)	(0.537)	(0.572)	(0.398)	(0.482)	(0.469)	(0.451)	(0.457)	(0.460)	(0.872)
Culture												
Trust	0.016	0.002	0.013	-0.002	0.001	-0.022	0.025**	0.021**	0.025***	0.023***	0.023***	0.014
	(0.550)	(0.899)	(0.496)	(0.904)	(0.940)	(0.323)	(0.029)	(0.004)	(0.002)	(0.002)	(0.001)	(0.102)
Power Distance	-0.072**						-0.012					
	(0.015)						(0.332)					
Individualism		0.078***						0.010				
		(0.000)						(0.301)				
Uncertainty Avoidance			-0.037*						-0.005			
			(0.057)						(0.538)			
Long Term Orientation				-0.083***						-0.011*		
				(0.000)						(0.083)		
Masculinity					-0.005	0.019					0.004	0.007
					(0.687)	(0.134)					(0.464)	(0.142)
Synergy	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Alleviation of Financial Constraints	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Real Option	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Deal Charateristics	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Firm Charateristics	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Bond charateristics	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Other Control Variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Intercept	5.558	-2.461	4.243	7.653**	-1.749	3.572	1.105	-0.221	0.835	1.378	-0.469	0.725
	(0.204)	(0.406)	(0.218)	(0.021)	(0.592)	(0.473)	(0.522)	(0.854)	(0.582)	(0.321)	(0.720)	(0.659)
Number of observations	347	347	347	347	347	347	1,163	1,163	1,163	1,163	1,163	1,161
Adjusted R2	0.162	0.160	0.182	0.164	0.161	0.083	0.065	0.065	0.068	0.066	0.065	0.061

Table 7: Frequent versus Infrequent Participants

This table provides the results of cross-sectional OLS regressions for bondholder wealth effects for frequent participants and infrequent participants around the announcements of Joint Ventures and Strategic Alliances of foreign firms. Six different regressions using different proxies are reported. Variable definitions are summarized in Appendix. The dependent variable is the firm-level three-month cumulative abnormal bond return. Robust standard errors are used to estimate statistical significance and p-values are reported in parenthesis. The symbols (*), (**) and (***) denote significance at the 10, 5 and 1 percent levels, respectively. For each regression, deal characteristics, firm characteristics, and bond characteristics are included but for abbreviation, coefficients are not reported.

	Frequent Participants						Less-Frequent Participants					
	Reg 1	Reg 2	Reg 3	Reg 4	Reg 5	Reg 6	Reg 1	Reg 2	Reg 3	Reg 4	Reg 5	Reg 6
Country Level Governance												
WGI3	-1.056	-1.003	-0.535	-1.188	-0.957	-0.113	-1.308**	-1.367**	-0.919	-1.426**	-1.228*	0.201
	(0.130)	(0.143)	(0.416)	(0.110)	(0.215)	(0.862)	(0.025)	(0.018)	(0.136)	(0.016)	(0.058)	(0.693)
SLRI (residual on PDI)	0.236**						0.284***					
	(0.013)						(0.001)					
SLRI (residual on IDV)		0.227***						0.319***				
		(0.009)						(0.001)				
SLRI (residual on UAI)			0.262***						0.307***			
			(0.003)						(0.000)			
SLRI (residual on LTO)				0.219***						0.319***		
				(0.013)						(0.003)		
Strength of Legal Rights Index (SLRI)					0.171**						0.263***	
					(0.059)						(0.001)	
ADRI						-0.398						-0.491*
						(0.214)						(0.088)
WGI_diff	-0.011	-0.013	-0.008	-0.014	-0.014	0.007	0.027	0.023	0.034	0.020	0.020	0.063*
	(0.792)	(0.744)	(0.848)	(0.727)	(0.723)	(0.846)	(0.488)	(0.559)	(0.382)	(0.605)	(0.621)	(0.122)
SLRI_diff	0.144	0.145	0.149	0.144	0.144	0.112	-0.075	-0.071	-0.073	-0.064	-0.064	-0.196*
	(0.128)	(0.124)	(0.115)	(0.123)	(0.121)	(0.226)	(0.550)	(0.568)	(0.558)	(0.607)	(0.608)	(0.099)
Culture												
Trust	0.040**	0.025***	0.036***	0.028***	0.028***	0.018*	0.017	0.010	0.014	0.013	0.014	-0.003
	(0.015)	(0.006)	(0.002)	(0.003)	(0.002)	(0.092)	(0.247)	(0.360)	(0.185)	(0.215)	(0.181)	(0.831)
Power Distance	-0.008						-0.025					
	(0.577)						(0.121)					
Individualism		0.009						0.021*				
		(0.536)						(0.059)				
Uncertainty Avoidance			-0.000						-0.016*			
			(0.982)						(0.091)			
Long Term Orientation				-0.017*						-0.025***		
				(0.085)						(0.002)		
Masculinity					0.004	0.011*					0.003	0.009
					(0.592)	(0.118)					(0.620)	(0.168)
Synergy	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Alleviation of Financial Constraints	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Real Option	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Deal Charateristics	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Firm Charateristics	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Bond charateristics	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Other Control Variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Intercept	1.160	0.046	0.477	2.434	-0.158	1.528	1.360	-1.400	1.388	1.998	-1.623	0.615
	(0.604)	(0.980)	(0.834)	(0.221)	(0.932)	(0.543)	(0.565)	(0.371)	(0.448)	(0.241)	(0.340)	(0.764)
Number of observations	888	888	888	888	888	888	622	622	622	622	622	620
Adjusted R2	0.105	0.104	0.112	0.103	0.103	0.100	0.058	0.059	0.063	0.058	0.058	0.040

Table 8: Speculative-grade versus Investment-grade Bonds

This table provides the results of cross-sectional OLS regressions for bondholder wealth effects for speculative-grade and investment-grade bonds around the announcements of Joint Ventures and Strategic Alliances of foreign firms. Six different regressions using different proxies are reported. Variable definitions are summarized in Appendix. The dependent variable is the firm-level three-month cumulative abnormal bond return. Robust standard errors are used to estimate statistical significance and P-values are reported in parenthesis. The symbols (*), (**) and (***) denote significance at the 10, 5 and 1 percent levels, respectively. For each regression, deal characteristics, firm characteristics, and bond characteristics are included but for abbreviation, coefficients are not reported.

	Speculative-grade						Investment-grade					
	Reg 1	Reg 2	Reg 3	Reg 4	Reg 5	Reg 6	Reg 1	Reg 2	Reg 3	Reg 4	Reg 5	Reg 6
Country Level Governance												
WGI3	-4.711***	-5.145***	-3.932***	-5.108***	-5.041***	-1.110	-0.614	-0.601	-0.128	-0.729	-0.401	0.535
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.478)	(0.244)	(0.253)	(0.813)	(0.155)	(0.480)	(0.283)
SLRI (residual on PDI)	1.046***						0.244***					
	(0.000)						(0.000)					
SLRI (residual on IDV)		1.241***						0.263***				
		(0.000)						(0.000)				
SLRI (residual on UAI)			1.068***						0.265***			
			(0.000)						(0.000)			
SLRI (residual on LTO)				1.152***						0.265***		
				(0.000)						(0.000)		
Strength of Legal Rights Index (SLRI)					0.997***						0.196***	
					(0.000)						(0.001)	
ADRI						-0.746						-0.454**
						(0.412)						(0.032)
WGI_diff	0.051	0.042	0.052	0.049	0.050	0.135	-0.007	-0.012	-0.003	-0.014	-0.015	0.013
	(0.517)	(0.584)	(0.509)	(0.530)	(0.516)	(0.114)	(0.815)	(0.689)	(0.931)	(0.647)	(0.620)	(0.668)
SLRI_diff	0.074	0.089	0.094	0.033	0.053	-0.058	0.088	0.092	0.086	0.098	0.099	0.028
	(0.803)	(0.765)	(0.749)	(0.912)	(0.860)	(0.845)	(0.224)	(0.205)	(0.233)	(0.177)	(0.174)	(0.694)
Culture												
Trust	-0.053	-0.101***	-0.061*	-0.084**	-0.069**	-0.031	0.026**	0.017**	0.023***	0.020***	0.021***	0.009
	(0.172)	(0.004)	(0.058)	(0.019)	(0.034)	(0.548)	(0.029)	(0.026)	(0.006)	(0.008)	(0.004)	(0.300)
Power Distance	-0.086*						-0.017					
	(0.058)						(0.192)					
Individualism		0.073**						0.014				
		(0.024)						(0.134)				
Uncertainty Avoidance			-0.064**						-0.009			
			(0.036)						(0.282)			
Long Term Orientation				-0.099***						-0.020***		
				(0.000)						(0.002)		
Masculinity					-0.014	-0.007					0.007	0.013***
					(0.422)	(0.797)					(0.170)	(0.009)
Synergy	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Alleviation of Financial Constraints	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Real Option	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Deal Charateristics	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Firm Charateristics	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Bond characteristics	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Other Control Variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Intercept	8.425*	-0.845	8.062*	11.658***	-0.402	3.092	0.407	-1.537	0.368	1.244	-1.968	-0.157
	(0.089)	(0.778)	(0.079)	(0.004)	(0.907)	(0.614)	(0.854)	(0.307)	(0.834)	(0.456)	(0.213)	(0.933)
Number of observations	221	221	221	221	221	220	1,289	1,289	1,289	1,289	1,289	1,288
Adjusted R2	0.054	0.058	0.063	0.051	0.052	-0.018	0.107	0.107	0.112	0.107	0.107	0.100

Table 9: Robustness Tests

This table provides the results of robustness tests on bondholder wealth effects of table 5. Panel A adopts a sample with participants' information only. Panel B uses principal component method on WGI. Panel C treats missing credit rating information as Not Rated. Six different regressions using different proxies are reported. Variable definitions are summarized in Appendix. The dependent variable is the firm-level three-month cumulative abnormal bond return. Robust standard errors are used to estimate statistical significance and P-values are reported in parenthesis. The symbols (*), (**) and (***) denote significance at the 10, 5 and 1 percent levels, respectively. For each regression, synergy, alleviation of financial constraints, real option, deal characteristics, firm characteristics, and bond characteristics are included but for abbreviation, not reported.

	Panel A						Panel B						Panel C					
	Reg 1	Reg 2	Reg 3	Reg 4	Reg 5	Reg 6	Reg 1	Reg 2	Reg 3	Reg 4	Reg 5	Reg 6	Reg 1	Reg 2	Reg 3	Reg 4	Reg 5	Reg 6
Country Level Governance																		
WGI3/Prin1	-2.047*** (0.010)	-2.000** (0.012)	-1.549* (0.061)	-2.056*** (0.008)	-2.003** (0.024)	-0.975 (0.178)	-0.447** (0.027)	-0.448** (0.025)	-0.284 (0.162)	-0.424** (0.029)	-0.375* (0.098)	0.039 (0.840)	-1.098*** (0.001)	-1.157*** (0.001)	-0.772** (0.049)	-1.124*** (0.001)	-1.067*** (0.004)	-0.252 (0.500)
SLRI (residual on PDI)	0.269*** (0.001)						0.211*** (0.000)						0.214*** (0.000)					
SLRI (residual on IDV)		0.260*** (0.001)						0.220*** (0.000)						0.222*** (0.000)				
SLRI (residual on UAI)			0.283*** (0.000)						0.253*** (0.000)						0.232*** (0.000)			
SLRI (residual on LTO)				0.258*** (0.001)						0.193*** (0.002)						0.193*** (0.002)		
Strength of Legal Rights Index (SLRI)					0.245*** (0.004)						0.177*** (0.002)						0.189*** (0.000)	
ADRI						-0.505* (0.075)						-0.369* (0.063)						-0.184 (0.305)
Culture																		
Trust	0.038** (0.011)	0.030*** (0.002)	0.035*** (0.001)	0.031*** (0.001)	0.031*** (0.001)	0.018* (0.062)	0.030** (0.011)	0.023*** (0.004)	0.028*** (0.001)	0.024*** (0.002)	0.025*** (0.001)	0.011 (0.204)	0.024** (0.012)	0.017*** (0.008)	0.020*** (0.003)	0.018*** (0.006)	0.020*** (0.003)	0.016** (0.039)
Power Distance	-0.021 (0.148)						-0.015 (0.191)						-0.014 (0.195)					
Individualism		0.022* (0.094)						0.014* (0.090)						0.017** (0.040)				
Uncertainty Avoidance			-0.011 (0.322)						-0.007 (0.343)						-0.011 (0.137)			
Long Term Orientation				-0.024*** (0.008)						-0.019*** (0.002)						-0.020*** (0.001)		
Masculinity					0.000 (0.964)	0.009 (0.150)					0.004 (0.462)	0.009* (0.060)					0.003 (0.437)	0.007* (0.094)
Intercept	1.699 (0.418)	-0.737 (0.642)	1.219 (0.541)	2.421 (0.173)	-0.655 (0.694)	1.386 (0.556)	-0.469 (0.770)	-2.189* (0.076)	-0.226 (0.850)	0.316 (0.789)	-2.231* (0.065)	0.325 (0.820)	3.060* (0.052)	1.493 (0.130)	3.335*** (0.010)	4.081*** (0.000)	1.326 (0.208)	1.572 (0.277)
Number of observations	1,082	1,082	1,082	1,082	1,082	1,082	1,510	1,510	1,510	1,510	1,510	1,508	2,002	2,002	2,002	2,002	2,002	1,976
Adjusted R2	0.087	0.087	0.090	0.087	0.087	0.079	0.072	0.072	0.078	0.071	0.072	0.064	0.089	0.088	0.090	0.088	0.088	0.068

Table 10: Stockholders Wealth Effects for JVSA

This table provides the results of baseline cross-sectional OLS regressions for stockholder wealth effects around the announcements of JVSA. Six different regressions for foreign firms using different proxies are reported. Variable definitions are summarized in Appendix. The dependent variable is the firm-level three-month cumulative abnormal bond return. Robust standard errors are used to estimate statistical significance and P-values are reported in parenthesis. The symbols (*), (**) and (***) denote significance at the 10, 5 and 1 percent levels, respectively.

	Reg 1	Reg 2	Reg 3	Reg 4	Reg 5	Reg 6
Country Level Governance						
WGI3	0.968	0.900	0.639	0.623	1.539	-4.162***
	(0.603)	(0.624)	(0.740)	(0.746)	(0.415)	(0.004)
SLRI (residual on PDI)	-0.920***					
	(0.003)					
SLRI (residual on IDV)		-0.917***				
		(0.003)				
SLRI (residual on UAI)			-0.898***			
			(0.002)			
SLRI (residual on LTO)				-0.766**		
				(0.018)		
Strength of Legal Rights Index (SLRI)					-0.912***	
					(0.001)	
ADRI						2.021**
						(0.029)
SLRI_diff	0.002	0.011	0.007	0.008	0.002	-0.103
	(0.988)	(0.945)	(0.966)	(0.958)	(0.989)	(0.456)
WGI_diff	-0.209	-0.218	-0.218	-0.216	-0.213	-0.002
	(0.676)	(0.662)	(0.662)	(0.664)	(0.668)	(0.995)
Culture						
Trust	0.059	0.077**	0.072**	0.075**	0.079**	0.153***
	(0.208)	(0.028)	(0.041)	(0.031)	(0.024)	(0.000)
Power Distance	0.085*					
	(0.076)					
Individualism		-0.084**				
		(0.020)				
Uncertainty Avoidance			0.081**			
			(0.015)			
Long Term Orientation				0.089***		
				(0.002)		
Masculinity					0.025	-0.006
					(0.227)	(0.725)
Synergy						
Business Proximity	0.940	0.937	0.949	1.005	1.080	0.220
	(0.226)	(0.229)	(0.220)	(0.193)	(0.164)	(0.761)
Geographic Distance	0.166	0.168	0.168	0.173	0.178*	0.150
	(0.120)	(0.118)	(0.116)	(0.103)	(0.092)	(0.116)
Alleviation of Financial Constraints						
Low Dividends Payout	0.183	0.210	0.194	0.030	-0.131	0.552
	(0.799)	(0.781)	(0.794)	(0.968)	(0.860)	(0.408)

Continued

Real Option

Uncertainty of Industry Investment	0.564	0.568	0.562	0.663	0.755	0.417
	(0.710)	(0.710)	(0.717)	(0.662)	(0.623)	(0.768)
Industry Concentration	-0.023	0.103	0.020	-0.111	-0.514	-0.739
	(0.974)	(0.896)	(0.978)	(0.881)	(0.545)	(0.372)
Deal Charateristics						
Number of Participants	0.184	0.183	0.181	0.172	0.159	-0.105
	(0.651)	(0.652)	(0.656)	(0.673)	(0.696)	(0.810)
Horizontal Dummy	-0.603	-0.621	-0.615	-0.579	-0.547	-0.150
	(0.452)	(0.438)	(0.445)	(0.471)	(0.494)	(0.837)
High Tech Dummy	-0.132	-0.113	-0.117	-0.196	-0.257	-0.245
	(0.898)	(0.913)	(0.910)	(0.850)	(0.804)	(0.806)
Firm Charateristics						
Total Asset	0.035	0.056	0.048	0.033	-0.006	0.059
	(0.924)	(0.874)	(0.894)	(0.925)	(0.986)	(0.838)
Leverage	3.743	3.953	3.824	3.404	2.712	2.034
	(0.182)	(0.179)	(0.177)	(0.237)	(0.355)	(0.455)
Market to Book	0.081	0.080	0.081	0.122	0.153	0.328
	(0.784)	(0.791)	(0.786)	(0.678)	(0.605)	(0.236)
Bond charateristics						
Bond Size	0.036	0.053	0.034	0.060	0.060	0.068
	(0.690)	(0.567)	(0.705)	(0.529)	(0.519)	(0.467)
Credit Rating	0.052**	0.053**	0.049*	0.054**	0.054**	0.051**
	(0.044)	(0.044)	(0.058)	(0.038)	(0.038)	(0.049)
Coupon	0.308***	0.323***	0.347***	0.307***	0.312***	0.357***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Time to Maturity	-0.015	-0.016	-0.009	-0.016	-0.018	-0.012
	(0.585)	(0.565)	(0.745)	(0.555)	(0.528)	(0.664)
Other Control Variables						
Economy	-4.998**	-4.992*	-4.052*	-4.339**	-5.120**	-2.779
	(0.032)	(0.058)	(0.079)	(0.025)	(0.011)	(0.103)
Multi Dummy	-0.533	-0.541	-0.519	-0.576	-0.605	0.325
	(0.493)	(0.489)	(0.510)	(0.460)	(0.437)	(0.641)
JV Dummy	-1.678**	-1.711**	-1.699**	-1.733**	-1.756**	-1.537**
	(0.032)	(0.026)	(0.029)	(0.024)	(0.022)	(0.030)
Intercept	-5.894	3.176	-7.976	-7.369	2.309	-7.199
	(0.407)	(0.504)	(0.187)	(0.193)	(0.633)	(0.238)
Number of observations	1,517	1,517	1,517	1,517	1,517	1,983
Adjusted R2	0.013	0.013	0.013	0.013	0.014	0.008

Table 11: A Test of Wealth Transfer Effects

This table shows the correlation coefficients between bond cumulative abnormal returns (CARs) and stock cumulative abnormal returns (CARs) in corresponding month windows. Panel A reports the correlations for full sample, joint ventures, and strategic alliances, each with a separation of foreign firms and US firms. Panel B reports the correlations for the sample where bondholders experience a gain and for the sample where bondholders experience a loss, each with a separation of foreign firms and US firms. Number of observations is reported below the correlation estimate. The symbols (*), (**) and (***) denote significance at the 10, 5 and 1 percent levels, respectively.

	Panel A					
	JVSA		JV		SA	
	Foreign	US	Foreign	US	Foreign	US
(0, 0)	0.093***	0.073**	0.054**	0.041	0.194***	0.096**
	1,932	1,062	1,368	459	564	603
(0, +1)	0.122***	0.134***	0.110***	0.142***	0.155***	0.127***
	1,936	1,074	1,372	465	564	609
(-1, +1)	0.118***	0.133***	0.104***	0.098**	0.155***	0.170***
	1,926	1,080	1,366	467	560	613
	Panel B					
	Gain			Loss		
	Foreign	US		Foreign	US	
(0, 0)	0.075***	0.057		0.088	0.072	
	1,632	789		300	273	
(0, +1)	0.076***	0.114***		0.194***	0.09	
	1,636	798		300	276	
(-1, +1)	0.053**	0.093***		0.240***	0.176***	
	1,629	802		297	278	