



ESTABLISHING GOOD GOVERNANCE IN FRAGILE STATES THROUGH RECONSTRUCTION PROJECTS

LESSONS FROM IRAQ

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Abstract:

Countries in transition often go through periods of upheaval and weak governance and Iraq is a prime example. Usually donor agencies hesitate to increase their support as they face two key problems in post-conflict or post-revolution situations: (1) high security risk for transparent implementation; and (2) poor government effectiveness, marred by corruption, ethnic tensions and economic stagnation. But this is precisely the time when donor engagement is needed most. By using the experience of JICA projects in Iraq, we argue that donors should not withdraw their support in difficult post-conflict situations. The paper proposes three mechanisms – information; social recognition; and mediation mechanisms – to solve such difficulties in a post-conflict society. The empirical analysis shows that more intensive communication between donor and government officials especially leads to a positive impact even in war-torn Iraq.

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INTRODUCTION

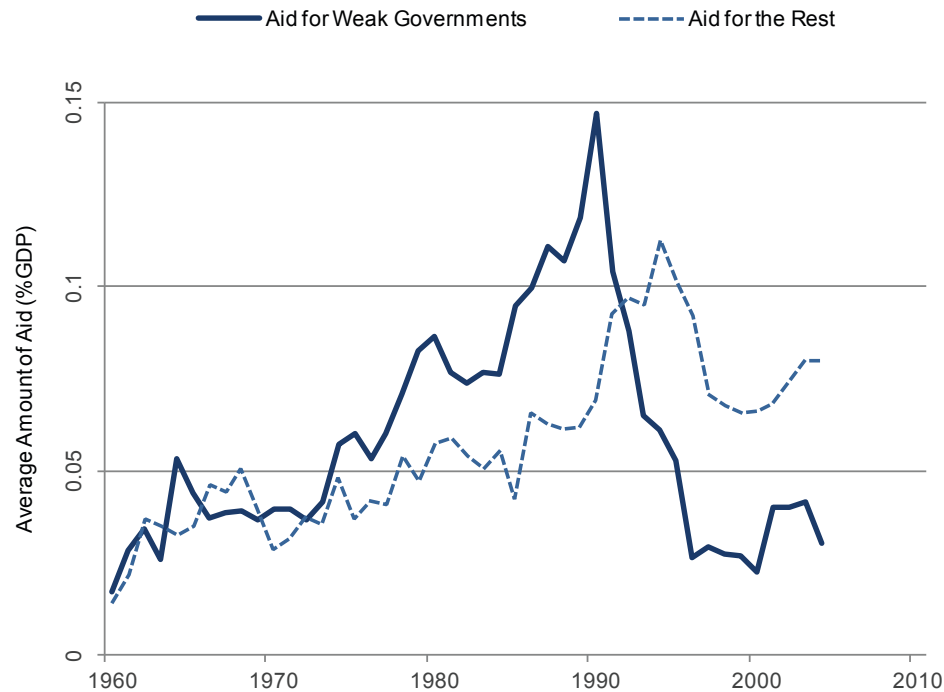
Some of the Arab countries currently going through democratic transition (e.g. Yemen) have experienced conflict and a collapse of some key institutions. They exhibit a number of the characteristics of fragile states. There is concern that this may lead to a decline in the volume of aid going to them at a time when they need it most. Aid can harm developing countries by distorting their incentive systems, especially when there is not an appropriate environment in which it can work. Particularly in weak, fragile governments, aid can be diverted by corrupt bureaucrats and politicians and have no positive effect on political stability and economic growth (Burnside and Dollar 2000; Collier and Dollar 2002).

Accordingly, the idea that good governance is a necessary prerequisite for aid to be effective has become a stylized fact (Epstein and Gang 2009).² In the past decade, the strengthening of good governance in developing countries has been both an objective of and a condition for development assistance. Further, while donors did not hesitate to implement large-scale projects in those countries with weak governance during the Cold War, a recent trend of development

assistance to such countries is to start from small-scale projects rather than risk losing the investment to corruption or incompetence. Figure 1 vividly shows the decreasing trend in aid disbursement to countries with weak governments after the end of the Cold War.

This paper, in contrast to the recent trend, proposes that aid can have a positive impact in a fragile state if certain conditions are met. Of course, the idea that aid sometimes results in increased political and economic development is not new (e.g., Clist and Morrissey 2011; Dalgaard, Hansen, and Tarp 2004). For instance, Burnside and Dollar (2000) argue that foreign aid raises economic growth in a good policy environment,³ while Kosack (2004) finds that aid can improve the quality of life in democracies. However, since most previous research employs a cross-country analysis with macro indicators, we still do not know what kinds of micro-level factors explain the positive relationship between economic aid and the recipient nation's development. Further, given that donors tend to avoid disbursing aid to fragile states, analyses focusing on fragile states are scarce, with little being known about what leads to positive results in such circumstances.

Figure 1: Long-Term Trend in Aid Disbursement by Quality of Government



Source: Aid data are derived from the World Bank, while government data are taken from Polity IV project (2011).¹

In contrast, by examining the successful implementation of aid projects in Iraq by Japan's aid agency, the Japan International Cooperation Agency (JICA), the paper identifies under what conditions aid can work in a fragile state. Although we may limit the external validity of our analysis by focusing on only one case, the existence of unique observational data, which include interviews, allows us to come close to identifying which micro-level indicators lead to a positive impact of aid in a fragile state. Whereas our observational data raise endogeneity concerns, the paper at-

tempts to establish a relationship between the JICA's interventions and the outcome by testing competing hypotheses.

We argue that the JICA project in Iraq results in positive development because (1) the quantity and quality of the donor's involvement is high; (2) there exists a social recognition system in the recipient government that evaluates their achievements in front of their peers; and/or (3) a neutral mediator facilitates the communication between the donor and recipient

agencies. By using a time-series analysis with novel micro-level indicators, we test the first two hypotheses, and, due to data limitations, we conduct a bivariate analysis to examine the impact of a third party presence.

In order to examine the hypotheses, we first need to demonstrate that JICA projects in Iraq leads to positive results – although the purpose of our analysis is not to examine whether the JICA projects worked. Then, after confirming that the project is a successful case, in terms of whether Iraqi officials become more efficient, we investigate what mechanisms led to positive aid impact in Iraq. Ultimately, by extracting mechanisms from the case study, we aim to generalize our findings to other cases. In other words, we believe that our attempt to identify the mechanism(s) not only helps accelerate post-conflict reconstruction efforts in Iraq, but is also of critical importance to policymakers and social scientists alike, in order to implement large-scale projects and reestablish good governance in other countries.

The paper proceeds as follows. The next section discusses difficulties in project management in post-conflict societies. The third section reviews three pillars of the JICA projects in Iraq: (1) increased interaction between donor and recipient; (2) a multilayer structure with a high-level authority in the recipient country; and (3) the presence of a third party entity to facilitate project management. By employing JICA and World Bank data, the fourth section examines whether the JICA project in Iraq was successful. Drawing on existing studies and field interviews, the fifth section proposes six hypotheses derived from the three pillars of the JICA project in Iraq. The sixth section describes our research design and data employed in our analyses. The seventh section reports our regression analyses and finally we conclude in the eighth section.

DIFFICULTIES OF POST-CONFLICT RECONSTRUCTION

This section reviews what kinds of difficulties a donor country faces in a post-conflict society. The review will help us understand the peculiar characteristics of the JICA projects in Iraq that we will explain in the next section.

A donor would generally encounter two main challenges in a post-conflict society where the governance structure has been destroyed. First of all, there are considerable security risks. Not only do donors face recurrent terrorist attacks and/or a high crime rate, but they also face a risk that conflict itself will resume. By one conservative estimate, 36 percent of civil wars that ended between 1945 and 1996 were followed by an additional war (Walter 2004). This implies that a donor has significant difficulty in maintaining a local office in post-conflict societies, and even if the donor establishes an office, donor officials are more likely to remain in the office rather than in the field due to security risks.

Second, and not necessarily due to a conflict, war-torn countries historically have not had good governance

records *ex ante*; the governments did not have the capacity to govern because of political and administrative weaknesses, corruption, ethnic tensions and conflict, economic depression, financial crises or totalitarianism. These reasons are frequently cited as factors that explain why external or indigenous efforts at regime change occurred in the first place (Rondinelli and Montgomery 2005). To make matters worse, during the previous authoritarian regime or civil war, the normal incentive to maintain a reputation for honesty is often disrupted, switching the society into a persistent high-corruption equilibrium (Tirole 1996). In the end, donors often have to improve or rebuild government capacity for public services from scratch, while facing significant security risks.⁴

Given the anticipated difficulties (i.e., security risk and underdeveloped government capacity), the World Bank and other donors tend to avoid investing in some post-conflict societies, although the media selectively captures cases and/or moments where donors pledged to disburse a bulk of aid such as Afghanistan, East Timor and Bosnia. Yet, in reality, as Flores and Nooruddin (2009) point out, donors such as the World Bank tend to select aid recipients according to their probability of conflict recurrence.

RECONSTRUCTION PROJECTS IN IRAQ

Iraq is a typical example of a fragile country that is reconstructing without an effective government or political stability. After the Iraq war, the first election was observed in 2005, and the violence in Iraq has decreased and foreign commercial activities have become more vibrant since 2007. Yet, despite signs of improvement, the country still faces instability in political, security and economic situations. According to the Worldwide Governance Indicators of the World Bank (2011), Iraq is ranked 20th from the bottom after Liberia and the Republic of the Congo in terms of government effectiveness, and fifth after Sudan and Afghanistan in terms of political stability. In addition, in Iraq's case, government officials have less knowledge and experience in international commercial activities due to decades of economic sanction, further discouraging donors from implementing large-scale projects.

As a result, as Figure 2 shows, most donors avoid committing large amounts of aid toward Iraq, whereas Japan constitutes an exceptional case – JICA aid accounts for 85 percent of all loans Iraq receives, while it accounts for 26.7 percent in total grants that Iraq has received since 2004.⁵

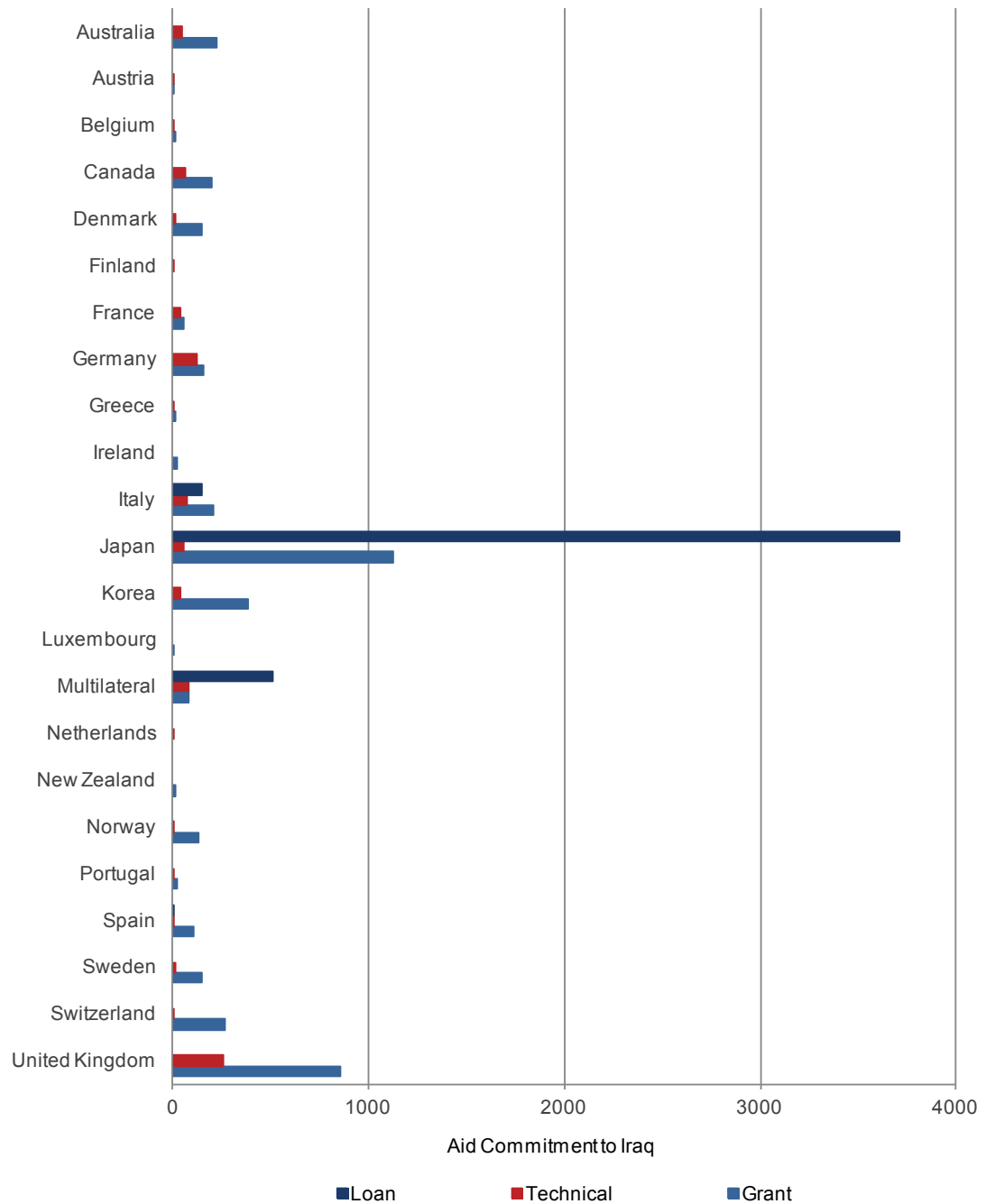
The initial platform was established in 2008 between the Iraqi government and JICA, and in 2009, the United Nations Development Programme (UNDP) joined the platform as a third-party fiduciary monitoring agent and evaluator. In total, the platform includes 12 loan agreements amounting to \$2.8 billion (subsequently, the number of loan agreements increased to 19), and covers various sectors such as electricity, transportation, water and sanitation, and oil.

While expecting to face difficulties in implementing large-scale projects in Iraq, Japan just did not write a blank check; rather, JICA came up with several mechanisms for aid to work in a war-torn society. More specifically, in order to address the above-mentioned difficulties, JICA and the Iraqi government agreed to introduce a unique monitoring platform composed of the following three pillars: increased interaction; a multilayer structure; and the presence of UNDP. Before explaining our hypotheses, we explain each pillar in more detail.

Increased Interactions

First, given that one expected difficulty in implementation was insufficient knowledge and experience regarding international standards, JICA increased the level of interaction with the recipient. More specifically, JICA agreed with project entities to set up a project management team (PMT) for each project, which consists of local officials. Whereas typically there would be high turnover rates among local officials in a fragile state, JICA asked the Iraqi government to maintain the same officials in a PMT for the long term. Then, JICA asked each PMT to submit a project progress report every month. JICA then reviews the report carefully and provides detailed feedback. The progress report and feedback cover important aspects of project management and contribute to establishing the project management framework. Since Iraqi officials did not have much experience and/or knowledge in project management with international finance organizations due to decades of conflicts and economic sanctions, the increased interactions between JICA and Iraqi officials and the provision of constructive feedback were expected to direct communication between JICA and project entities to the important issues in project implementation and increase the effectiveness of project implementation.

Figure 2: Aid Commitment to Iraq by Country and Type



Source: Author based on Development Assistance Committee, Organization for Economic Co-operation and Development.

Multilayer Structure

Second, to facilitate PMT's activity in project implementation, JICA further introduced a multilayer monitoring system. To increase the degree of monitoring, JICA agreed with the Iraqi government's high-level authority and oversight agencies such as the prime minister's Advisory Commission, the Ministry of Finance and the Ministry of Planning, to establish a committee to oversee the reconstruction projects periodically. A quarterly monitoring meeting represents the multilayer structure. In this quarterly monitoring meeting, project entities are expected to discuss best practices and common problems, while JICA, the high-level authority and oversight agencies evaluate project entities based on measureable factors of their performance. More specifically, in the quarterly monitoring meeting, the latter three institutions praise PMTs that had good performance records, while they prod PMTs that have bad performance records.

Presence of UNDP

Third, while there is a need to increase monitoring in situations like post-conflict Iraq, limited access to project entities due to security concerns often leads to ineffective and time-consuming project management (e.g., communicating only with official letters). In contrast, by collaborating with the UNDP, which has direct access to project entities even in war-torn countries, JICA attempted to solve such accessibility problems. UNDP plays a unique role in this monitoring mechanism, as actual problems in implementation are captured through direct access, rather than via emails or phone calls. Based on the findings, they provide analyses and evaluations in monthly reports and quarterly monitoring meetings. Further, in addition to their physical advantage, it appears that the presence of UNDP alleviated an unequal relationship between the donor and the recipient. Such unbalanced relationships or feelings between donors and recipients are often observed in implementation of aid projects. But being a recognized international organization, UNDP's assessments are considered as an independent third party's opinion, which contributes not only to maintaining a well-balanced relationship among stakeholders but also to improving effectiveness of monitoring.

EFFECTIVENESS OF THE JICA RECONSTRUCTION PROJECTS

This section examines the effectiveness of JICA's reconstruction projects in Iraq in comparison with the World Bank's projects and JICA's other projects. Despite the anticipated difficulties, JICA's reconstruction projects in Iraq have been implemented very well so far. Though the effectiveness of aid projects is a multifaceted concept, the current analysis employs the degree of implementation efficiency of Iraqi officials to measure whether the JICA project has a positive impact.

Any development project takes time from the beginning to the end, but it sometimes takes a decade for completion due to many reasons, including a recipient country's dysfunctional bureaucracy, and further delay will be expected in a weak state. Such delay has a non-negligible consequence on the development of a recipient country. For instance, one of the JICA's reconstruction projects in Iraq is to construct crude oil export pipelines and facilities. Although Iraq is well-known for rich proven oil reserves, its export are still limited because of the lack of export facilities. The project aims to establish facilities to export nearly 2 million barrels per day, which accounts for almost 80 percent of Iraq's current oil exports. This means that if the construction of the oil export facilities were delayed one day, the expected cost would be \$160 million at \$80 per barrel; \$4.8 billion for one month's

delay. As oil contributes a major portion of the Iraqi economy, this eventually affects the Iraqi people's livelihoods. Although we agree that efficiency may not be straightforwardly connected to the overall success of an aid project, we believe that it can be one of the important indicators of project success.

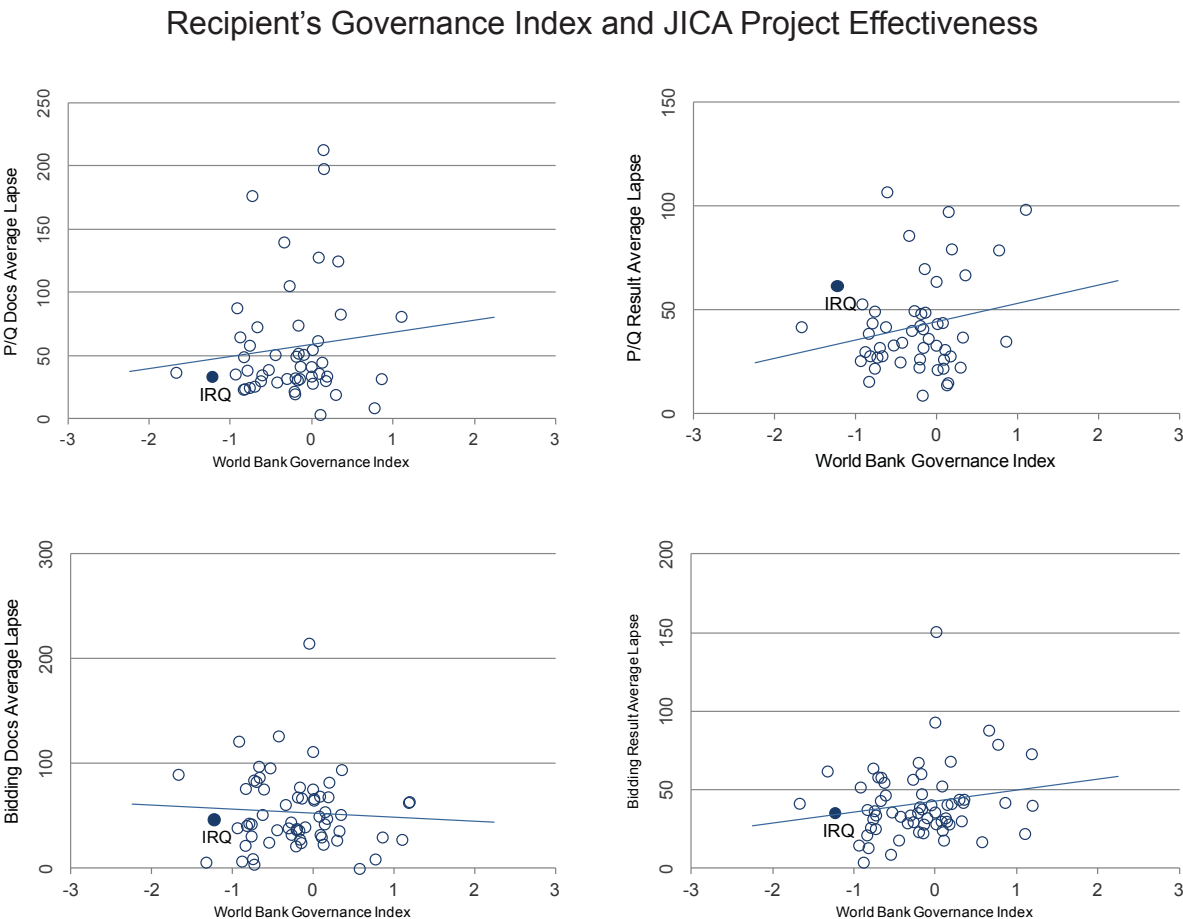
Since JICA started its projects in Iraq, the efficiency of project management by Iraqi officials who are in charge of loan execution has improved. For example, during the course of implementation, the average lapse of JICA's review of documents on each procurement process has become shorter, as shown in Table 1, suggesting that the quality of the documents prepared by the Iraqi government has improved and the completion of aid project will be faster.⁶ We assume that JICA's work for the review process is constant, so a decrease in the lapse should indicate an improvement of Iraqi officials' submissions.

Further, to present counterfactual analyses, we compare work efficiencies of JICA projects across different countries. Comparing different projects by the same agency (JICA) allows us to reduce omitted variable bias caused by differences in donors. Figure 3 shows scatter plots of the efficiency of project management by the quality of government. As a proxy for efficiency, the current analysis employs variables measuring how long a project takes to complete its assignment (same as Table 1).

Table 1: Average Lapse Taken by JICA to Review Procurement Documents			
	2008-2009	2010	2011
P/Q Docs Average Lapse	41	14	N/A
P/Q Result Average Lapse	115	34	14
Bidding Docs Average Lapse	53	48	26
Bidding Result Average Lapse	32	29	42

Source: JICA.

Figure 3: Effectiveness of Project Management by Quality of Governance



Source: Governance Indexes are derived from the World Bank, while JICA Project Effectiveness are taken from JICA.

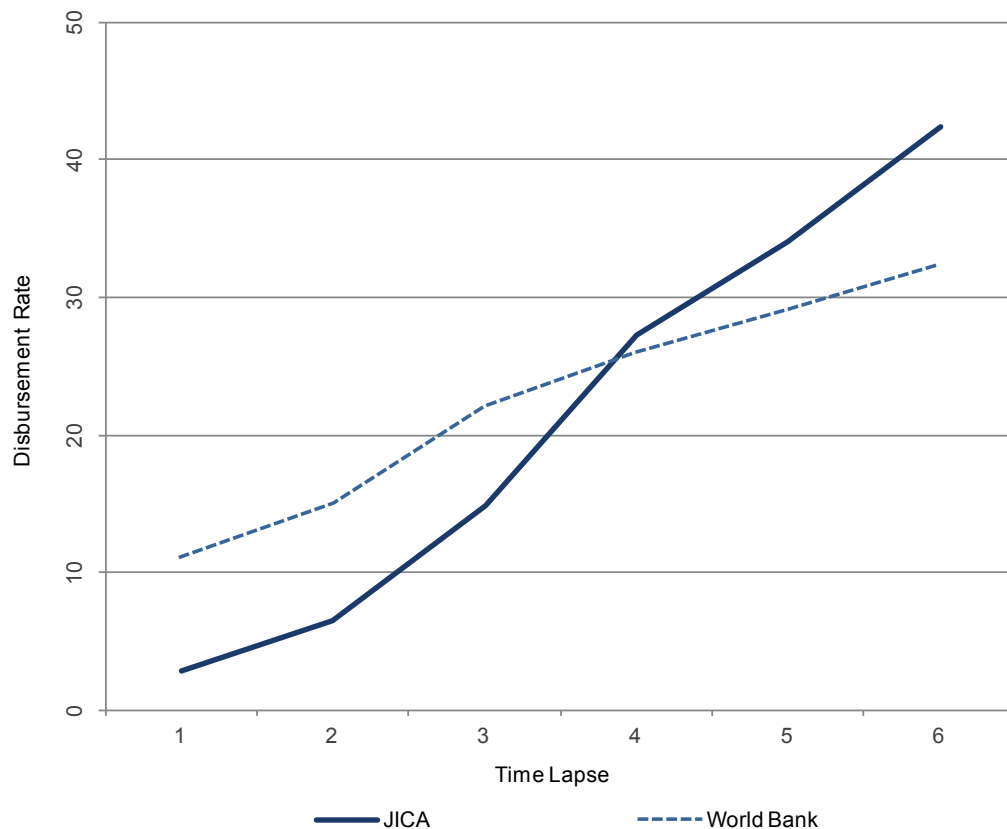
Although there is some variation, given that a possible selection bias leads to an underestimation for the fitted lines, we can see that the Iraq government manages JICA projects more effectively than average (except the top-right panel), suggesting that the efficiency improvement in Iraq shown in Table 1 is partially supported.

Next, to corroborate the analysis, we compare work efficiencies of the JICA project in Iraq with the ones of the International Development Association's projects in Iraq. Though there are differences in donors and the nature of their projects, this can complement the analysis with the cross-country comparison among JICA projects. Since the World Bank's procedure to review procurement documents may differ from JICA's

procedure, the current analysis employs the ratio between commitment and disbursement as a proxy of project efficiency, expecting that if Iraqi officials improve their quality of work, they are more likely to make more disbursements. Figure 4 compares the indicators for both JICA and World Bank projects. According to the figure, efficiency rates improve over time for both the JICA projects and the World Bank's projects. However, the efficiency rate for the JICA projects exceeds the one for World Bank over time, while the efficiency rate for the World Bank's projects are better than JICA's at the beginning.⁷

Although the analysis is only univariate or bivariate, the evidence indicates that the JICA projects in Iraq can be considered an example of success. However, the finding is less important than specifying why they are efficient, as it does not allow us to extract an underlying mechanism and replicate it in other settings. Thus, the following sections attempt to identify how JICA's projects contribute to the increased efficiency of the Iraqi government's work. The next section first introduces some generalizable hypotheses to explain the success of the JICA projects in Iraq.

Figure 4: Comparison in Project Efficiencies between JICA and the World Bank



Source: Author based on the World Bank and JICA.

EXPLAINING EFFECTIVE AID IMPLEMENTATION IN A WEAK STATE

The previous section demonstrated that the JICA projects in Iraq are effective compared to other projects in similar settings. Yet, it is still unclear why this is the case. To learn from best practices and replicate them in other projects, we need to identify a causal relationship that explains why the JICA projects in Iraq increase the effectiveness of PMT officials. To identify the causal relationship, this section proposes hypotheses connecting the interventions to the results.

Since JICA introduced the above-mentioned three monitoring mechanisms at the same time, it is difficult to disentangle them and determine which one led to the positive result. To identify the mechanisms' effects, we thus derive several hypotheses by drawing on existing studies. By extracting distinct hypotheses, we attempt to differentiate which mechanism leads to the positive results in the JICA Iraq projects.

As reviewed above, JICA introduced three novel mechanisms in Iraq: increased interaction; a multi-layer structure; and the presence of the UNDP. For convenience, we name each mechanism: (1) information mechanism; (2) social recognition mechanism; and (3) mediation mechanism. From these three mechanisms, this section derives six testable hypotheses that allow us to explain the positive impact of the JICA interventions on the efficiency of Iraqi officials' work.

Information Mechanism

In order to overcome a lack of knowledge and conduct capacity building, JICA increased interactions with Iraqi officials. Although interactions can be defined in many ways, we focus on the following two aspects of

interactions: the quality and quantity of interactions. While we expect the increase in interactions and information provision to generally lead to an increase in work efficiency of Iraqi officials, the following question remains: quality or quantity, which is more important in this monitoring process?

The debate of quality vs. quantity in educational study has a long history (e.g., Ng 2008). Theoretically speaking, a significant body of educational literature argues that the quality, not just quantity, of education matters to improve economic performance (e.g., Hanushek and Woessmann 2007), therefore both high quality and quantity of monitoring are expected to increase Iraqi officials' work effectiveness.

Note that although it is reported that an increase in the quantity of work is sometimes detrimental to work efficiency (e.g., Barling, Rogers, and Kelloway 2006), the current analysis uses the term quantity as the amount of communications rather than the amount of work JICA/Iraqi officials complete. We thus expect that an increase in communication levels between JICA and Iraqi officials can reduce misunderstanding between them, while Iraqi officials can accumulate knowledge through frequent consultation with JICA. Likewise, JICA improved the content of monitoring and gave more detailed feedback to Iraqi officials in order to help them learn how to manage their projects. From this, if our expectations were true, we should observe a positive impact out of both quality and quantity of interactions:⁸

H1: An increase in monitoring quantity leads to higher efficiency in project management.

H2: An increase in monitoring quality leads to higher efficiency in project management.

Social Recognition Mechanism

A large body of the public administration literature indicates that good managers make positive change happen in their organizations (Fernandez and Rainey 2006). Thus, the introduction of the multilayer monitoring system involving influential Iraqi high-level authorities, such as prime minister's Advisory Commission, should result in positive changes. The existence of influential high-level authorities, however, tells us little about how they facilitate Iraqi officials becoming more efficient in terms of project management. To understand the mechanism behind this theory, this paper focuses on an evaluation system involving the high-level authority.

JICA/UNDP publishes a project-entity ranking based on their performance every year. Using the ranking, the high-level authority in Iraq praises project entities that performed well, while they give critical comments to project entities that did not. In development economics, some scholars find that provision of performance-linked financial incentives can motivate greater effort and improve performance in a public service provision (Duflo et al. 2007). On the other hand, there is also evidence suggesting that relying on non-pecuniary incentives that come from social recognition, appreciation or sanction can be more effective to motivate public workers (Alcazar et al. 2006).

Accordingly, in the case of JICA's intervention, we can see the impact of social recognition in two different ways. First, project entities that received good evaluation were more motivated to work efficiently, since they wanted to keep their good record and be recognized as good project entities by the high-level authority, (which also may lead to an increase in their budget and/or individual promotion in the long term). By contrast, project entities that received bad evaluation also had an incentive to work more efficiently

since they wanted to avoid social and financial punishment in the short and long term (poorly performing PMTs might face a budget cut and also risk being recognized as inefficient by government officials). From this, we can summarize the social recognition mechanism and draw the following two competing hypotheses:

H3: A better evaluation leads to higher efficiency in project management.

H4: A worse evaluation leads to higher efficiency in project management.

Mediation Mechanism

The third mechanism lies with the presence of the UNDP. JICA initially asked UNDP to assist in their work with Iraqi officials due to security risks in the country. According to interviews we conducted in June 2012, the presence of UNDP seems to have two positive impacts on the work efficiency of project entities. First, we observed that since UNDP officials could move more easily across the country, the introduction of UNDP facilitated project management - it is only natural that face-to-face interactions resulted in more efficient project management. Second, since Iraqi officials consider UNDP a neutral third party, the Iraqi officials seemed to have more frank conversations with UNDP officials, leading to early detection of problems and more efficient project management.

Brown and Ayres (1994) argue that a neutral third party can mitigate inefficiency caused by miscommunication between two parties if the third party can directly observe each party's behavior and disclose it to both groups. Indeed, as a neutral party, UNDP is well placed to have access to both parties' information and utilize it to solve miscommunication. However, the

involvement of UNDP can be a double-edged sword since Iraqi officials may end up relying on UNDP more than JICA, which leads to an adverse coordination problem among the three organizations, and/or the amount of work may increase, as Iraqi officials have to work for both UNDP and JICA. From this, we can derive two competing hypotheses in terms of the presence of UNDP:

H5: *The presence of a third party leads to higher efficiency in project management.*

H6: *The presence of a third party leads to lower efficiency in project management.*

Table 2 summarizes the observational implications. The next section introduces our research design to test the hypotheses.

Table 2: Three Mechanisms and Observational Implications			
	Information Mechanism	Social Recognition Mechanism	Mediation Mechanism
Variation	Quantity vs. Quality	Positive Evaluation vs. Negative Evaluation	UNDP vs. Non-UNDP

RESEARCH DESIGN AND DATA

Research Design

The most challenging task for evaluating the hypotheses is that we do not have appropriate counterfactuals to estimate the impact of JICA's intervention on the effectiveness of the Iraqi government. We thus believe that potential endogeneity issues arise from omitted variables, and some variables certainly lead to bias in our estimates. For instance, we suspect motivation is an endogenous variable – more motivated project entities should result in both better evaluation and higher efficiency, leading to a biased estimator.

With that caveat in mind, we first compare a treatment group and a control group for each hypothesis. More specifically, for each hypothesis, we create a quasi-treatment group with the best three PMTs and a quasi-control group with the worst three PMTs. For instance, to assess the information mechanism hypotheses, we pick three PMTs that have received most interactions and three other PMTs that have received the fewest interactions, and compare the effectiveness of their work between them.

Next, although the data limitation does not allow us to assess all the hypotheses, we employ a regression analysis to corroborate the exercise. The regression analysis employs panel data to minimize the potential bias due to omitted characteristics, while we include a number of important control variables such as motivation to help us isolate the main mechanism discussed in the paper. The unit of panel-data analysis is project-year with an observational period between 2010 and 2012.

Data

We employ the data that JICA and UNDP collected. Our main dependent variable – and the way we operationalize effectiveness – is “submission delay.” The variable measures how long, on average, each PMT takes to finish its requirement in a given year. More specifically, each PMT is supposed to submit a report every month and we note the difference between the expected submission date and the actual submission date. We employ an annual average time lapse between expected submission dates and actual dates each year.

To test the first two hypotheses (Information Mechanism: Quantity vs. Quality), we first employ the “frequency” variable, coding how often JICA/UNDP officials have contact with each PMT. To collect the data, we conducted a survey and asked each official “On average, how often do you work with the PMT that you are in charge of in a month’s time?” The response is a five-point scale with a higher value indicating more frequent communication. Next, in order to measure the quality of interactions, we employ the amount of feedback JICA gives Iraqi officials as a proxy (the “feedback” variable). More specifically, we count how many items JICA corrected on reports submitted by Iraqi officials. We expect that the more feedback a PMT receives, the more efficient it becomes over time.

Turning to the second set of hypotheses (Social Recognition Mechanism: Positive vs. Negative), we employ the “ranking” variable, flagging which PMT receives positive or negative recognition by the high-level authority.

Finally, to test the third set of hypotheses (Mediation Mechanism: UNDP vs. Not UNDP), we use a dummy variable that codes 1 if UNDP is involved in a PMT's projector 0 if they are not.

To minimize the danger that our results could suffer from omitted variable bias, the regression analysis also includes a set of control variables plausibly associated with both the dependent and independent variables: "motivation," measuring if a PMT is more motivated for the work; and "project scale," measuring variation in project scale among PMTs. Although it is difficult to measure motivations, we use how well each PMT is organized as a proxy for whether a PMT is committed to the project, what we call organizational motivation. We expect that if a PMT is well set-up in

the first place, it means that the overseeing ministry for the PMT is more motivated for the project and the PMT thus has to be motivated as well. We also use a time dummy variable to control for temporal dependence. Finally, we use a one-year lag of our dependent variable. This way, we believe we can estimate the effects of independent variables on subsequent efficiency increases in the Iraqi government. The following equation summarizes our basic specification:

$$\Delta \text{Submission Delay}_{it} = \alpha + \beta_1 \text{Feedback}_{it-1} + \beta_2 \text{Ranking}_{it-1} + \beta_3 \text{Motivation}_{it-1} + \beta_4 \text{ProjectScale}_{it-1} + \beta_5 \text{Fixed Effects}_i + \varepsilon_i$$

Table 3 shows the summary statistics of variables used for the analyses.

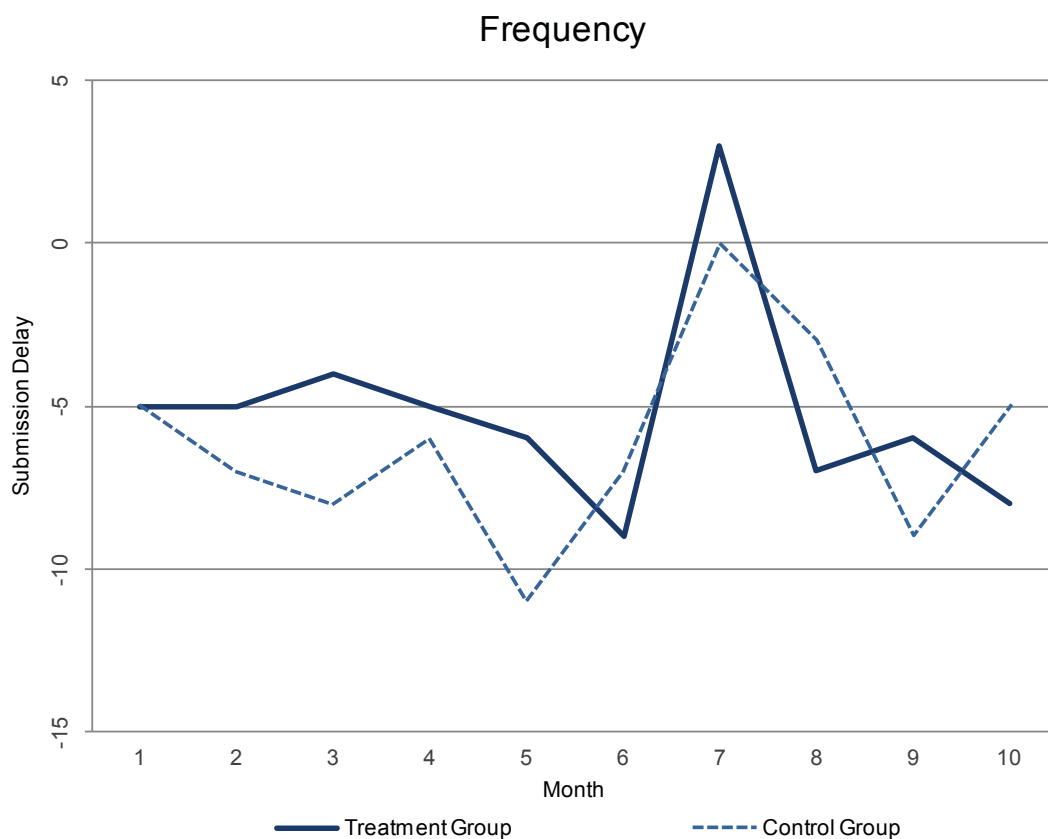
Table 3: Summary Statistics					
Variable	Obs	Mean	Std. Dev.	Min	Max
Submission Delay	24	-0.340	5.59	-19.00	9.45
Frequency	15	3.217	0.89	1.50	4.75
Feedback	36	3.205	1.99	0.67	7.33
Ranking	24	6.500	3.53	1.00	12.00
Motivation	27	4.000	2.16	0.00	6.00
ln(Planned Disbursement)	22	21.309	1.29	19.13	23.66

RESULTS

First, we report our counterfactual analyses by using the data with a format of project-month.⁹ Figure 5 compares PMTs that have more frequent contacts with JICA/UNDP with the counterparts that have less frequent interactions. The figure shows that there is no significant difference between the high contact group and the low contact group in terms of submission rate, indicating that the impact of frequent contact is not substantial.

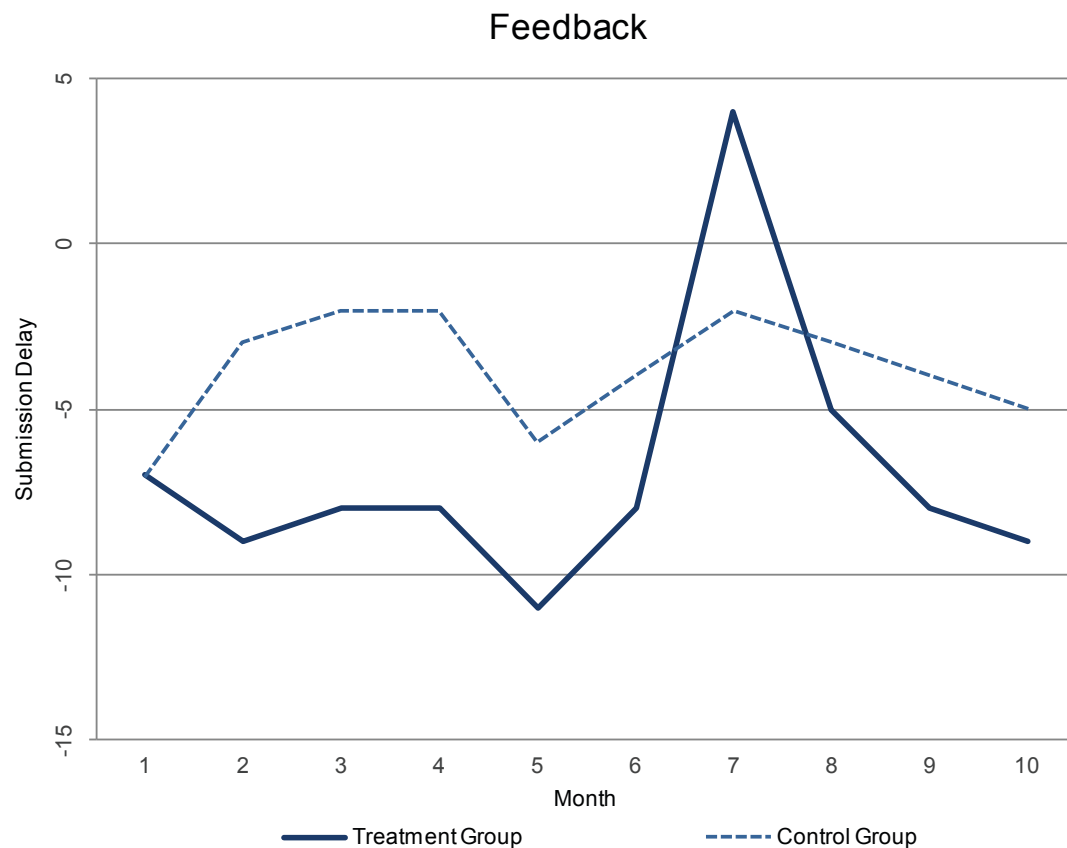
Turning to the quality of information, Figure 6 compares PMTs that have more feedback with those who have less feedback from JICA/UNDP. According to the figure, we can see that those that have received less feedback are generally more likely to submit required documents on time than those who have received more feedback, suggesting that giving feedback is indeed detrimental to work effectiveness of Iraqi officials.

Figure 5: Comparison in Terms of Frequency in 2012



Source: JICA.

Figure 6: Comparison in Terms of Feedback in 2012



Source: JICA.

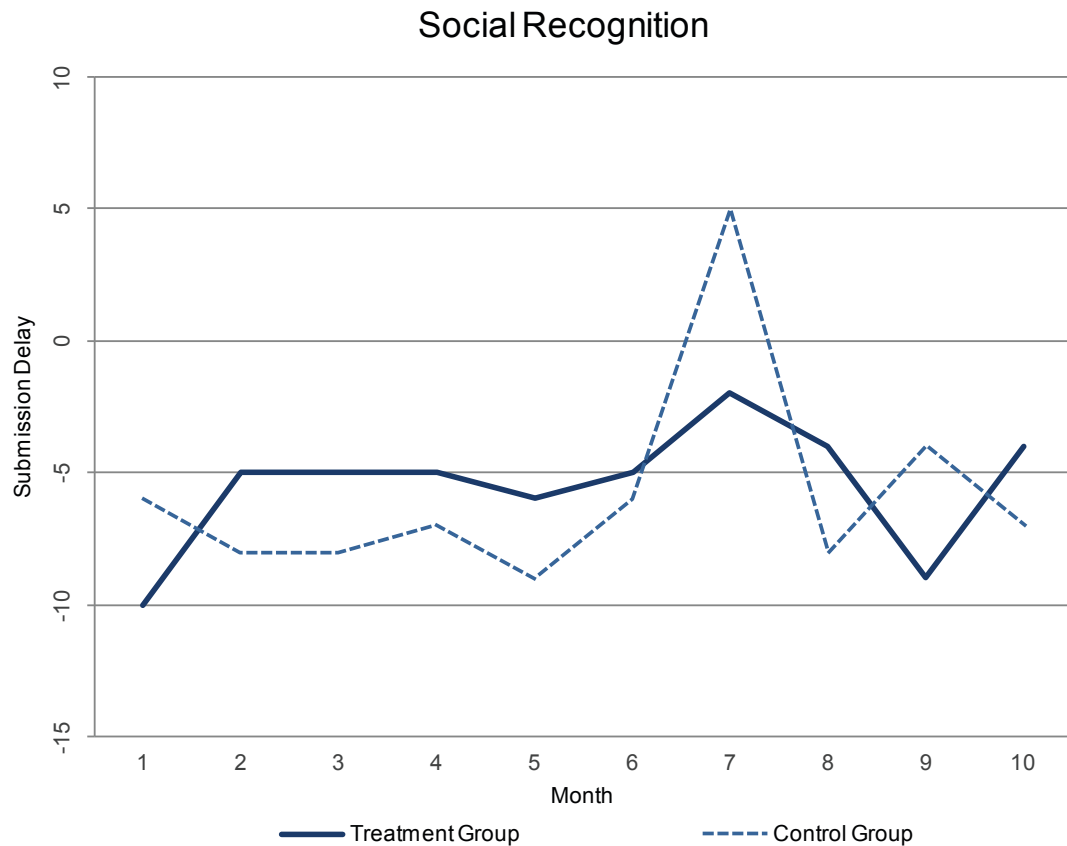
Figure 7 compares PMTs that received the best evaluation in 2011 with those that received the worst evaluation in 2011. The figure demonstrates that the project entities that received a good evaluation are generally more likely to sustain a good level of work effectiveness except in the month of July.

Finally, although the monthly data are not available, we attempt to evaluate the mediation hypotheses by comparing PMTs that work with UNDP with those who do not work with UNDP. Specifically, we use average

number of days taken by JICA to review bidding documents submitted by each PMT. According to the data, whereas the PMTs with UNDP improved their work effectiveness by about 15 days, the PMTs without UNDP slowed down the process by 34 days.¹⁰

In sum, we have so far found that the quality of interaction may be more important than the quantity of communications, and positive evaluation is more effective than negative evaluation. Yet, since it is a bivariate analysis and focuses on a trend only in 2012,

Figure 7: Comparison in Terms of Social Recognition in 2012



Source: JICA.

we suspect that the analysis cannot detect a more long-term impact of the JICA interventions on the effectiveness of Iraqi officials' work. For example, it may be that those who receive less feedback work better now because they might have received more feedback intensively over the previous years. Similarly, it may be that positive evaluation is more effective because those who received a positive evaluation in 2011 might have received a negative evaluation in previous years, and therefore might have worked to gain their reputation.

In order to address the concern, we next conduct a time-series analysis. Although the data cover only a three year period, we anticipate detecting a more general impact of the JICA projects on the work effectiveness of Iraqi officials. The empirical results in Table 3 display the estimated coefficient of the regression analyses. Due to lack of available variables, we could only employ the feedback and ranking variables among the explanatory variables of interest, but could not include the frequency and UNDP variables. As for our dependent variable, we used the same variable of

Table 4: Regression Analysis		
Variables	Submission Delay	
	(1)	(2)
Frequency	2.623 (3.064)	
Feedback	1.950 (3.515)	2.352*** (0.741)
Ranking	-0.728 (0.988)	-0.087 (0.270)
Motivation	-0.007 (1.356)	0.295 (0.269)
ln(Planned Disbursement)	0.780 (2.729)	0.517*** (0.116)
Constant	-22.239 (72.395)	1.507 (11.198)
Observations	8	17
R-squared	0.577	0.791
Controls	Y	Y
Time-Series	N	Y

Robust standard errors in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

submission delay as the previous analysis. Further, the analysis suffers from a small sample size (N=17). As for the model specifications, Model 1 uses a cross-sectional analysis with controls variables such as motivation to see whether we can replicate the previous bivariate analysis. Model 2 employs a time-series analysis with the same control variables as Model 1.¹¹

First, Model 1 shows that, controlling for other variables, the feedback variable shows a positive sign instead of a negative sign found by the previous bivariate analysis. This is confirmed by a time-series analysis in Model 2. Model 2 shows that, all else equal, the feedback variable is statistically significant and has a positive impact on submission. This is consistent with Hypothesis 2, suggesting that those who receive

more feedback are in general more likely to increase their work effectiveness. Combined with Figure 6, we can infer that PMTs that have received more feedback will improve their work effectiveness and become less dependent on JICA/UNDP over time.

As for the ranking variable, Model 1 and Model 2 both report a negative sign, which is consistent with Hypothesis 4, but the significance level is not sufficient to reject the null hypothesis in the time-series analysis. Although we need to wait to make a final judgment until we collect more data, the analysis suggests that those who receive negative evaluation in the previous year may be more likely to improve their work effectiveness.

CONCLUSION

Although we still need to do a follow-up analysis with more data, we believe that the findings of this research suggest an important lesson for post-conflict or fragile states on effective implementation of large-scale aid and governance projects. Countries in transition often go through periods of upheaval and weak governance, and Iraq is a prime example. Donors may hesitate to implement large-scale projects in post-conflict or post-revolution situations due to security concerns and underdeveloped bureaucratic capacity of recipient states. Nonetheless, by using the successful case of JICA projects in Iraq, this paper showed that large-scale projects can work in a post-conflict society and increase recipient officials' capacity to implement aid effectively. This suggests that donors should not withdraw their support in difficult post-conflict situations. Given that this is the time when donor engagement is most crucial, the JICA example offers three ways to manage aid in such circumstances.

In this paper, we first proposed three baseline mechanisms – information mechanism; social recognition mechanism; and mediation mechanism – to explain the positive impact on project effectiveness in a post-conflict society. Drawing on previous studies, the paper then derived six testable hypotheses from the three mechanisms.

In the empirical sections, we tested the six hypotheses. First, we found that project entities that have received more feedback from JICA/UNDP tend to improve their work effectiveness over time, while the number of interactions or communications may

not be as important an indicator as the quality of interactions. This suggests that the quality of donor intervention leads to more positive results than the quantity of intervention. Second, the findings show that the more negative evaluations a project entity has received in the past year, the more likely their work effectiveness is to increase. The results imply that the social recognition mechanism works better for those who receive negative evaluations than those who receive positive evaluations. In other words, PMTs work more effectively when they receive “bad” social recognition. Third, because we could not conduct a panel-data analysis for the mediation mechanism, the empirical result for the UNDP involvement should be interpreted as largely descriptive. Yet, since we cannot reasonably find alternative explanations for the positive results of the PMTs with UNDP, and those who work with UNDP should have had more difficulty in conducting their projects in the first place, we believe that the presence of UNDP increased work effectiveness and the conclusion will not change even with multivariate analysis.

In sum, the paper finds that donors may be able to increase the work effectiveness to a level able to support large-scale projects even in a post-conflict country if (1) they are committed to interacting with local officials and giving detailed comments on how they can facilitate their projects on their own; (2) a local high-level authority monitors local officials' work and creates a culture where bad-performing officials are not allowed to continue work; and/or (3) a third-party international organization facilitates communication between the donor and the recipient.

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ENDNOTES

1. The polity score codes the qualities of democratic and autocratic authorities for each country, every year between 1800 and 2010. It ranges from 10 (consolidated democracy) to -10 (hereditary monarchy). We define “weak governments” as countries whose polity score is in the 25th percentile.
2. The concept of governance captures “the manner in which power is exercised in the management of a country’s economic and social resources for development” (Santiso 1992: 1).
3. Their argument is been scrutinized and challenged by a number of scholars (e.g., Easterly, Levine and Roodman 2004).
4. It is true that some scholars argue that aid helps the dramatic recovery of conflict-torn societies. For example, Collier and Hoeffler (2004) find that aid leads to economic growth in post-conflict societies. Yet their findings also need to be framed within a context: aid in conjunction with good policies has a positive effect on growth. The study also suffers from an endogeneity problem of the so-called phoenix factor (for example, see Kang and Meernik (2005)).
5. U.S. provides exceptionally large amounts of technical cooperation aid and grant; we omit the data from the analysis as outliers.
6. In each step of procurement, JICA requires project entities to submit procurement documents and reviews the documents against JICA’s procurement guidelines, which indicates basic guidance in international bid procedure. PQ Docs Average Lapse and Bidding Docs Average Lapse mean days taken by JICA for review of prequalification documents and bid documents, respectively. In case of PQ result and Bidding result, JICA reviews evaluation process and result described in the evaluation documents.
7. We attempt to match time horizons (X-axis in Figure 3), as projects periods of the JICA and World Bank are not exactly same.
8. Since high quantity of JICA intervention can be correlated with high quality of JICA intervention, we may not be able to disentangle two hypotheses. Yet, we can exploit variation in our data on JICA interventions - project entities that receive higher quality of JICA intervention are not the same entities that receive higher quantity of JICA intervention.
9. We removed two projects from the analyses as outliers because they skew the results.
10. We used the following review processes for the analysis: bidding document review and bidding evaluation review.



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