Abstract: This paper identifies empirically the institutional spillover effects stemming from the road construction project funded by foreign aid and analyzes the mechanism of the effects by examining the behavioral process of the main actors including the donor, recipient, consultant company and local organizations. The Circumferential Road No.3 Construction Project in Manila, Philippines is used for the case study. First, we examine the project purposes, the project processes and the project results by reviewing pertinent literature and by interviewing local stakeholders. Then, we analyze the institutional spillover observed in the projects. We focus on the single key event in the case and examine the spillover effects by identifying the major actors, mapping the institutional mechanisms/organizations involved, and investigating the key event.

Key Words: infrastructure project, institutional spillover effect, official development assistance, road construction, Manila

1. INTRODUCTION

A number of empirical literatures have recently shown that infrastructure contributes to the economic growth and poverty reduction in developing countries (Esfahani and Ramirez, 2003; Calderon and Serven, 2004; Datt and Ravallion, 1998). However, most studies of aid effectiveness have focused on the beginning and the end of this causality chain (Nissannke and Jerve, 2008). The intermediate processes have by some been referred to as a kind of ‘black box’ (Bourguignon and Sundberg 2006), and it has been argued that further progress on aid effectiveness requires opening that box. The mechanisms and the processes by which aid-funded infrastructure projects produce successful development outcomes have not been examined so far. Nissannek and Jerve (2008) hypothesize that the success or sustainability of such investments depends on a large measure on institutional spillover effects. It depends on intermediary and institutional outcomes of the project – e.g. impacts in terms of human resource development, capacity building and institutional and policy reform. It depends on
what takes place within the ‘black box’. In response to these concerns, this paper aims to analyze empirically the indirect effects of infrastructure projects, focusing on institutional spillover effect. This research observes the institutional spillover effects and their process during the implementation of infrastructure projects funded by foreign aid. The Circumferential Road No.3 Construction Project in Manila, Philippines is used for a case study in this paper.

The paper is organized as follows. The next chapter presents the project overview. Then Chapter 3 reviews the project implementation process and the project results by reviewing pertinent literature and by interviewing local stakeholders. Focus is made on the single key event in the case. Chapter 4 examines the spillover effects by identifying the major actors, mapping the institutional mechanisms/organizations involved, and relating these with the key event. Finally, Chapter 5 summarizes the findings of our analysis and makes recommendations for future projects.

2. OVERVIEW OF THE CASE

2.1 The Substance of the Project

The Circumferential Road No.3 (C-3) Construction Project was designed not only to rehabilitate the existing parts but also to construct new parts in the northern segment of C-3 located in Caloocan City and Quezon City. Moreover, The C-3 Project was also intended to improve and construct the Makati-Mandaluyong Road (connecting Makati City and Mandaluyong City) as a substitute road for the southern segment of C-3. The location of the Circumferential Road No.3 is shown in Figure 1. The project aimed to mitigate the urban transport problems, especially the heavy congestion in Metro Manila. The road shares a major role with the formulated Conceptual Highway Network in the Metropolitan Manila Area. The original part of C-3 road in the project is the northern package (Package A-1 and A-2) of the project, which starts from Aurora Avenue and ends at Rizal Avenue Extension with a length of 7.1 km. This is a semi-circular road with a length of about 9 km. from the Central Business District of Manila. The alignment of the Makati-Mandaluyong road (Package B in the project) is different from the originally planned C-3 road section and is about 2.7 km long, starting from the intersection of Makati Avenue and J. P. Rizal Street and terminating at the

Figure 1: The location of the Circumferential Road No.3.
intersection of Shaw Boulevard and Nueve de Febrero Street.

2.2 Process of the Project

In 1973, the OCTA (former name of the present Japan International Cooperation Agency, JICA) completed the Urban Transport Study in Metro Manila Area (UTSMMA)\(^1\). This study recommended the following three plans: (1) an arterial road network plan consisting of six circumferential and ten radial roads; (2) an urban high-speed mass transport plan consisting of construction of five express railway lines and the improvement of the Philippine National Railway (PNR); and (3) an urban expressway network plan. This was the first comprehensive basic urban transport plan in the Metro Manila. The C-3 was also included in the proposed road network plan. In 1977, JICA completed the Feasibility Study of "Metro Manila Roads Project C-3, C-4 Roads Construction Project"\(^2\). At the same time, the Metro Manila Transport,

<table>
<thead>
<tr>
<th>Year</th>
<th>Month</th>
<th>Metro Manila Circumferential Road No.3 Construction</th>
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<tbody>
<tr>
<td>1973</td>
<td>9</td>
<td>OTCA (present JICA) recommended basic urban transport plan in UTSMMA</td>
</tr>
<tr>
<td>1977</td>
<td>F/S by JICA: “Metro Manila Roads Project C-3, C-4 Roads Construction Project” was implemented.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>7</td>
<td>MMETRO Plan: Metro Manila Transport, Land Use &amp; Development Plan was implemented by UK Freeman Fox Inc. with the Philippine Government budget (World Bank funding): recommendation on construction of 10 circumferential and radial roads, division of roles of buses and jeepneys, and introduction of light rail trains (LRT) etc.</td>
</tr>
<tr>
<td>1978</td>
<td>3</td>
<td>F/S by JICA: Completion of “Metro Manila Roads Project C-3, C-4 Roads Construction project”</td>
</tr>
<tr>
<td></td>
<td>11</td>
<td>Provision of E/S budget for &quot;C-3/R-10 Roads Construction Project&quot;, Phase 2 of R-10: In the implementation stage, E/S for Makati-Mandaluyong road included, service completion in September 1982 (for 7th ODA Loan).</td>
</tr>
<tr>
<td>1983</td>
<td>8</td>
<td>As a project under the 12th ODA Loan, Government of the Philippines requested construction of No. 10 and No. 11 sections of of No. 10 and No. 11 sections of Circumferential Road No. 3, and construction of overpasses at Roosevelt, South and East Kamias and Ortigas intersections along Circumferential No.4 Road.</td>
</tr>
<tr>
<td></td>
<td>11</td>
<td>Government of the Philippines requested to redirect the entire 12th ODA Loan to a commodity loan due to the economic crisis (US$230 million).</td>
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<tr>
<td></td>
<td>12</td>
<td>Government of the Philippines changed their request for a commodity loan under the 12th ODA Loan (US$150 million).</td>
</tr>
<tr>
<td>1984</td>
<td>2</td>
<td>Government of the Philippines requested three project loan as candidate for the 12th ODA Loan. But this project involves a heavy local currency budget burden and did not fall within the allowable scope for 12th ODA loan.</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>JICA prepared Metro Manila Urban Transport Study. Results of Persontrip Survey made under “Metro Manila Urban Traffic Improvement Project” (L/A in June 1980, ¥5,410 million) were utilized.</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>Signing of 12th ODA Loan Agreement</td>
</tr>
<tr>
<td>1985</td>
<td>2</td>
<td>Request for 13th ODA Loan: This project was requested to have its contents changed to sections 8, 9, 10, and 11 of Circumferential Road No. 3.</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>Government of the Philippines made an additional request for the 13th ODA Loan.</td>
</tr>
<tr>
<td></td>
<td>7</td>
<td>Metro Manila Urban Transportation Strategy Planning Project Part B2 was prepared by Renardet Inc., Italy with World Bank’s fund. Part A is a master plan of whole Metro Manila transport sector, Part B for F/S of traffic control etc., and Part B2 for F/S of roads network improvement.</td>
</tr>
<tr>
<td></td>
<td>10</td>
<td>The Japanese Government pledged the 13th ODA Loan (this project is included in the project loan).</td>
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<tr>
<td></td>
<td>12</td>
<td>Signing of E/N</td>
</tr>
<tr>
<td>1986</td>
<td>5</td>
<td>Signing of L/A (13th ODA Loan)</td>
</tr>
<tr>
<td>1995</td>
<td>1</td>
<td>Completion of project</td>
</tr>
</tbody>
</table>
Land Use & Development Plan (MMETRO Plan) which was funded by World Bank was prepared. This plan recommended the construction of 10 circumferential and radial roads as well as other facilities in the Metro Manila. JICA completed the Feasibility Study of the C-3 Project in March, 1978 and recommended the urgent implementation of the project.

The provision of engineering service budget for “C-3 Roads Construction Project” started in November, 1978. At the same time, the Makati-Mandaluyong (MM) road was included in the project. The MM road construction aimed to ease the traffic congestion between J. P. Rizal Road and Show Blvd. Although the original plan includes another road which runs parallel to the MM road, the construction of the original road was given up due to consensus-building problems related to the acquisition of right-of-way (ROW). As the original road had been occupied by the squatters around the construction area, the then-mayor stated in 1981 that he would not relocate the squatters. Thus, the “C-3 Roads Construction Project” covered the following two project components for construction and improvement: (1) the northern part of the original C-3 plan with the three lanes in each direction; and (2) the MM road with the three lanes in each direction.

Although the area along the MM road was also occupied by many squatters, they were cleared under the order of the mayor around the construction site. Note that this mayor is different from the mayor who gave up relocating the squatters. One of the reasons why they were successfully cleared was because the road area was owned by the Department of Social Welfare and Development (DSWD). The detailed engineering of the C-3 and related roads was conducted from 1979 to 1981. Final loan agreement on the 13th ODA loan was signed in May, 1986. The construction commenced in June 1988.

Republic Act 7279, the Urban Development and Housing Act (UDHA) should be discussed considering the significant impact of this law to the case projects. The law was enacted on March 1, 1992, in the time of President Corazon Aquino. The UDHA law is often referred to as the “Lina Law” after its main proponent, Jose Lina, a former secretary of Department of the Interior and Local Government. The law describes the procedures involved in the relocation of squatters, including compensation when they are relocated in the site of the investment project. Prior to this law, squatters were not eligible for any kind of compensation.

Figure 2: Three packages in the C-3 Construction Project.
in the event of removal.

The C-3 Project was divided into three packages: Package A-1, Package A-2 and Package B. The sections corresponding to these three packages are shown in Figure 2.2. The Package A-1 is 4.67 km in length and is located in Quezon City, taking the west part of Original C-3 Road. The Package A-2 is 4.67 km from Aurora Blvd. to Sgt. E. Rivera along G. Araneta Avenue. The Package B covers the MM road with 2.72 km connecting Makati Avenue to Shaw Boulevard. The implementation processes of the above three packages are described in the following sub-sections. The overall process of the C-3 project is summarized in Table 1.

3. Project Implementation Process

3.1 Project Implementation Process: Package A-1

The first bidding was done for the package A-1 in December of 1987. J. H. PAJARA Construction Corporation submitted the lowest bid and won the contract for this package on February 17, 1988. The contractor started the construction after they received the Notice to Proceed on June 2, 1988. However, progress of the construction fell behind schedule, mainly because not all of the ROW had yet been acquired. This made it difficult for the contractor to proceed with the construction efficiently. In addition to the delay in the land acquisition, the contractor also experienced a shortage of operating capital due to the very low bid price. For these reasons, the contractor lost interest in completing the project within schedule. Although the URPO instructed and warned the contractors to improve their productivity, they found no remarkable improvement. Finally, the Department of Public Works and Highways (DPWH) agreed with PAJARA Construction Corp. to terminate the contract. DPWH allowed the contractor to complete whatever items of work had not yet been completed. At the time of this agreement, only 30% of the project was accomplished, although the construction had started approximately 20 months before. This termination was officially confirmed by the DPWH in February of 1990.

After the termination of the first contract, the bidding process for a new contract (to complete the project) began in June of 1988. The new contract package included: the remaining works specified in the first contract, and the recommended additional works to raise the road level along the Talayan Creek (between Quezon and Del Monte Avenue) and the completion of the open channel waterway with stone masonry retaining walls from Calamba to Retiro Street. The PAJARA Construction no longer joined the bidding process for the new contract. The Makati Development Corporation won the bid for the new project contract in 1990. The winning price was higher than the original price by around 40 million pesos (about 70% of the original price). The DPWH put high priority on completing the construction of the three sections included in the package before December of 1990. However, the construction once again fell behind schedule because the Makati Development Corporation suffered from the lack of the manpower and materials. The contractor was directed to improve the situation several times. But it was only in July 20, 1991 that the section of the project from Ma. Clara to Retiro Streets was finished and opened to traffic. Although one year behind(65,899),(926,988) the construction deadline, most of the works were completed in December of 1991. And finally, on January 14, 1992, the C-3 Package A-1 was formally opened to traffic.

3.2 Project Implementation Process: Package A-2

The first bidding for the Package A-2 was opened to the public in December of 1988. But since there was no pre-qualified contractor that accepted the contract price proposed by the DPWH, a failure of bidding was declared. Then, a second bidding was conducted in June of 1988. However, the lowest bid price was 22 percent higher than the Approved Agency
Estimate (AAE) which was 52,341,171.65 pesos. The bidder with the lowest bid price rejected the proposal from the DPWH to accept the AAE price. The DPWH then started to negotiate with the second lowest bidder, the Makati Development Corporation. Although the Makati Development Corporation accepted the AAE price, the DPWH needed ten months to get the concurrence from the Overseas Economic Cooperation Fund (OECF) for accepting the Makati Development Corporation as the contractor. This was because the price negotiation itself violated the guidelines of the OECF (that a bidder shall not be required as a condition of award to undertake the responsibility to modify the bid). After 10 months of waiting for concurrence from OECF, the Makati Development Corporation requested a price adjustment due to the delay in the process. Finally, it seemed that the contract with the adjusted price was finalized on July 10, 1989. But the DPWH Secretary declared that no price adjustment will be made considering the higher cost demanded by the negotiated contract. This particular contract was eventually nullified.

Although, price negotiations between government authorities and bidders have been a common if not popular practice among the construction companies in the Philippines, this was inconsistent with OECF’s guideline on modifying the bid. This inconsistency resulted in significant delay. Subsequently, and perhaps partly because of the experience in the C-3 project, a new Amendment of the Implementing Rules and Regulations of PD 1594 was established in 1990.

The third bidding was conducted in May of 1990. The Makati Development Corporation finally won the bid for the Package A-2 at 78,888,583.10 pesos. This price was 50 percent higher than the original AAE price. The project was also delayed by a whole year of legal battle between the URPO and the land owners due to the problems in valuation of necessary compensation. Previously, ROW acquisition cost was based on assessor’s and owner’s valuation. The lower value was adopted by the government for valuation purposes. However, oftentimes, the assessor’s valuation was not updated to current market levels, while the owner’s valuation is too subjective. This meant that the valuation was almost always unacceptable to the affected party. Also, the valuation only included land and structures, but not special facilities such as factory machines and the like. Thus, there were legal conflicts which were elevated to the Supreme Court of the Philippines. Eventually, DPWH lost the case.

3.3 Project Implementation Process: Package B

The Package B of the C-3 Project was also known as the Makati-Mandaluyong Road Project. This 2.72 km road connecting Makati Avenue to Shaw Boulevard consisted of two segments. The Satrap Construction Co. won the bid for this package at 29,501,735.11 pesos. They received the Notice to Proceed on October 24, 1988. The construction started in November of 1988.

The construction progressed very slowly, with only 6.73 % of total construction completed within 81% of the originally planned construction period. First of all, only 34.71 % of the route was ready to be worked on due to right-of-way problems and concerns about the design. But delays in the construction were evident even on the works scheduled for the workable area. The completion report pointed out the following reasons for the slow progress of the contractor: the scarcity of equipment, the lack of skill and the inefficient project management. Moreover, the report also included the bad weather conditions and the spiraling market price as part of the reasons for the delay. Although the DPWH revised the schedule several times and advised Satrap Construction Co. to improve its performance, the contractor did not show
any significant progress in their work. The DPWH finally decided to terminate the contract in November of 1989. In order to minimize the negative impact of the unfinished construction on the general public, the DPWH decided to undertake some of the remaining works themselves.

Then, the DPWH divided the Package B into two parts: Package B-1 (Coronado and San Francisco Streets) and the Package B-2 (in the Welfareville area). The bidding for the Package B-1 was opened to the public on February 15, 1990. Manifold Construction Enterprises Inc. won with a bid of 36,550,791.30 pesos in April, 1990. Construction started in July of 1990 and finished on May 22, 1991. The route was opened to the traffic on May 14, 1991. In almost ten months this section of the project was completed because the contractor took all effort to fast track the construction. To illustrate, when additional piles were needed, instead of importing from Japan, the piles were procured from the local market. The cost may have been higher and the quality lower, nevertheless, construction proceeded without delay. In April of 1991, almost all major works were completed and only some minor items of work remained. Finally, it was completed on May 14, 1991, when the President of Philippines attended the opening ceremony. The improvement of Nueve de Febrero and Martinez Streets were completed under separate agreements between the DPWH, the Manila South Engineering District and the Local Government of the Municipality of Mandaluyong.

The bidding for the Package B-2 was postponed due to the occupancy of squatters at Welfareville. However, all the related agencies made many efforts to clear the site to start the construction. The bidding was conducted in February of 1991. Although the lowest bid offered by the E. Ramos Construction Inc. was 19.5% higher than the AAE price, the contract was awarded to E. Ramos Construction Inc. for this package. The contract was approved on June 18, 1991 together with the Notice to Proceed. The construction also started in June of 1991 because the contractor had already started mobilizing all necessary heavy equipment and manpower even before the issuance of the Notice to Proceed. The contractor had started working at its own risk to catch up with the fast track program of the DPWH. The construction was completed and the road was opened to the traffic on February 14, 1993. This inauguration was earlier than the original schedule.

4. IDENTIFICATION OF MAJOR INSTITUTIONAL SPILLOVERS

One example of an important institutional spillover of the C-3 project is the Amending of the Implementing Rules and Regulations of PD 1594. Midway in the implementation of the C-3 Project, the DPWH changed the rules in the bidding system. To know what were the institutional influences of the change in the bidding system, the following were done: we described the case relating to this institutional change and we examined the socio-economic context of the institutional change (including the common negotiation practices in the locality and the external factors that have some bearing on the system change). To analyze the process of the change in the bidding system, we first identified the key actors. Later, the actor’s strategies were examined by laying out their hypothetical options and hypothetical targets. Finally, the institutional spillovers of the amendment of PD 1594 were discussed.

4.1 Case Description

PD1594 stipulates the basic rule of tendering in the Philippines. It clearly states that the successful bid price should not be above the given ceiling price. In other words, the bidder can only win the bid when his/her proposed price is lower than the given ceiling price. If the
lowest bid price would be higher than the ceiling price, the contract could not be agreed. However, in such a case, the DPWH had often negotiated with the bidders to change the bid price into the lower price.

According to the interview with the Japan Oversea Consultant (JOC), it was the JOC that pointed out that the negotiation between the DPWH and the lowest price bidder violated the Guidelines for Procurement of OECF. The JOC took the role of advising the DPWH under the contract with the JBIC. The OECF guidelines stated that a bidder shall not be required as a condition of award to undertake responsibilities or to modify the bid (Section 5.09 Award of Contract / OECF), such as asking them to change their bid to the AAE. The JOC warned the DPWH of this violation during the implementation of the package A-1, in 1989.

Based on the advice of the JOC, the DPWH amended the Implementing Rules and Regulations of PD 1594 in 1989, to exempt projects funded by the foreign loans from the rule that requires that successful bids be priced under the ceiling price (AAE). In other words, bidders could win the tender even with the bid price higher than the ceiling price if the project was funded by foreign loans. This amendment was applied to the third bidding of package A-2 in the C-3 project.

4.2 Social and Economic Context

In the Philippines, it has been for many years the common practice of the DPWH and the construction companies to negotiate the contract prices of projects. It appears that both DPWH and the construction companies have benefited from this scheme. For the DPWH, it gains from this price negotiation in two ways. It will no longer have to conduct another bidding process, thus, avoiding the additional costs. Furthermore, DPWH will no longer need to raise the contract price if the bidder agrees to comply with the AAE. They can save the contract cost with the low ceiling price. For the construction companies, negotiating the price with the DPWH is very important if not necessary to win the contract. And for most companies, winning a major contract with the government enabled them keep their company running.

However, the DPWH and the construction companies are not negotiating on an even playing field. The DPWH has the stronger bargaining power in the price negotiation, since it makes the final decision on the contract. Therefore, the construction companies will have to concede to the decisions made by the DPWH. As a result, the DPWH most often will succeed in negotiating for a contract price at most equal to the ceiling price.

But, this practice of price negotiation is notably one of the causes of the projects being delayed. To begin with, it makes the bidding process more complicated and time consuming. When bidders do not tender the best possible price, continuous negotiations will have to be made between the DPWH and the construction companies. Moreover, the delay caused by the practice of price negotiation can also lead to capital shortage on the side of the winning contractors. This may not only take away the incentive for higher productivity and faster project completion, but this too may destroy the morale of the construction industry. The formation of relationships that go beyond the professional level could also be a consequence of this long-standing practice of price negotiation between the authorities and the construction companies. This could possibly lead to many different kinds of corruption. But sadly, there is no evident effort to change this situation in the domestic construction market.

However, there were two external pressures that beleaguered the construction industry in the
Philippines in the 1980’s. First is the construction boom that happened during the implementation of the C-3 project. The construction companies suffered from the rapid increase of the domestic demand for construction materials and related resources. The construction boom caused the considerable increase of the market price for construction materials. In addition, the rapid growth in the construction industry also posed new challenges in managing the equipments and the human resources necessary for the projects. Unfortunately for the construction companies, while the market price for construction inputs increased, the contract price remained the same. Albeit knowing that the ceiling price will never cover the required cost of the project, the construction companies could do very little about the problem because DPWH would certainly negotiate for a contract price lower than the ceiling price.

The second external factor that made an impact on the Philippine construction industry is the entry of the JOC into the domestic bidding system during the implementation of the C-3 project. As mentioned earlier, despite knowing about the various problems caused by the long-standing custom of price negotiation, the domestic stakeholders did not undertake any evident measure to change the system. Actually, the practice of price negotiation may have been favored by the authorities and the construction companies simply because they benefited from the said system. However, when the JOC joined in as the project adviser to the DPWH, changes started to happen. The JOC warned the DPWH of the problems arising from the bidding system, including its violation against the OECF guideline. As an outsider, the JOC can point out the problems without any political conflict. Finally, the DPWH decided to change the bidding system since the advice from the JOC was reasonable from the legal viewpoint, which also benefits itself (in the long-term) by following the international standard.

4.3 Main Actors in the Case
The key actors in the case of the amendment of PD 1594 are the following: the Overseas Economic Cooperation Fund (OECF, now known as the Japan Bank for International Cooperation or JBIC); the Department of Public Works and Highways (DPWH) and the Prequalification, Bids and Awards Committee (PBAC); and the Japan Overseas Consultants (JOC). The OECF has a statutory mandate to undertake lending and other operations for the promotion of Japanese exports, imports and economic activities overseas. It is also directed to ensure the stability of international financial order. The OECF also pursues economic and social development activities in the developing economies. By and large, the OECF contributes to the sound development of the Japanese economy as well as the international economy. The OECF does not compete with financial institutions in the private sector. It was the OECF that funded the C-3 project based on the recommendation of the JICA’s Feasibility Study and after consultation with Government of Philippines. The DPWH and PBAC were the agencies that stipulated the Amendment of PD 1594. The URPO was the agency under the DPWH, responsible for implementing the project at the actual site. The other related government agencies cooperated and gave their assistance, however, the URPO was the lead agency that handled the relocation issues and conducted the actual resettlement of those affected. The PBAC was the government committee that dealt with the prequalification, bids and awards. It had the power to officially decide the ceiling price and monitor the bidding process organized by the DPWH. The JOC was the consulting company hired by the JBIC to advice the DPWH on the C-3 Project. Part of their job was to check the bidding process and the project implementation.

4.4 Actor Strategy Analysis in the Process
Next, we examine the details of the decision-making process that may have occurred as
amendments to the PD 1594 were introduced.

4.4.1 The DPWH’s strategy
We start our analysis with the behavior of the DPWH. It was only after the JOC pointed out that the price negotiation system violated the OECF Guideline that the DPWH decided to amend the PD 1594. Essentially, the amended PD 1594 exempts foreign aided projects from the ceiling price regulation. Why did the DPWH make such a decision? What were the options available to the DPWH? To answer these questions, we examine the DPWH’s hypothetical options and enumerate their hypothetical targets.

The Hypothetical Options of the DPWH:
(D-i) To request the PBAC to revise its system and set a ceiling price that is estimated higher than the current price;
(D-ii) To amend the Implementing Rules and Regulations of PD 1594 to exempt only the foreign aided projects from the ceiling price regulation;
(D-iii) To amend the Implementing Rules and Regulations of the PD 1594 to exempt all projects from the ceiling price regulation;
(D-iv) To apply the exception only for this project; and
(D-v) Status-quo.

The Hypothetical Objectives of the DPWH:
(D-1) To implement the project at a lower cost;
(D-2) To complete the project earlier;
(D-3) To ensure the quality of project by working with well-qualified contractors; and
(D-4) To maintain a good relationship with the OECF/Japan.

It is understandable that the option selected by the DPWH was considered in view of the above mentioned objectives. Based on the interviews conducted, it appears that the DPWH put high priority on implementing the project at a lower cost (D-1 Objective) and was also very much concerned about completing the project at an earlier time (D-2 Objective). The DPWH may have also recognized the importance of maintaining a good relationship with the OECF/Japan (D-4 Objective), however, this was not readily observed. Furthermore, the DPWH may have also wanted to guarantee the quality of the project by working with well-qualified contractors (D-3 Objective). However, when the DPWH pushed for the fast-tracking of the construction in the later stages of the project (particularly of Package B-2), they clearly showed that this objective was less important compared to the other targets.

This is how we evaluated the actions taken by the DPWH. First, it is clear that the DPWH did not choose Option D-iii which would have exempted all projects from the ceiling price regulation. However, a more problematic scenario in the bidding process can be expected if no degree of regulation is prescribed to all the projects. Therefore, to amend PD 1594 in this direction will result in the Philippine government losing a huge amount of money. Hence, D-iii Option does not act upon the DPWH’s D-1 Objective. Second, the DPWH did not choose D-iv Option which would have applied the exemption only for this particular project. Anticipating the possibility of the same problem arising in the future, the DPWH may have avoided Option D-iv. The DPWH may have preempted the rejection by the JOC and the OECF of any temporary solution to the problem. But above all, stop-gap solutions do not offer long term answers to the problem and may even bring additional costs and time delay to the projects. Therefore, Option D-iv does not fulfill D-1 and D-2 Objectives of DPWH. Third, the DPWH did not choose the Option D-i which would have requested the PBAC to revise its system and set a ceiling price that is estimated higher than the current price. This option
would have required many consultations and long discussions with pertinent government agencies (not only with the PBAC). Therefore, this option too will not satisfy the D-2 Objective of the DPWH. Finally, there was the option to keep the status quo (D-v). But since amendments were later made to the Implementing Rules and Regulations of PD 1594 to exempt foreign aided projects from the ceiling price regulation, DPWH evidently opted to pursue D-ii Option.

The action taken by the DPWH was quite clear. However, to evaluate what the DPWH prioritized as their primary objective is neither simple nor obvious because none of the objective is necessarily dominant over the others. However, it could be that after comparing the Objectives D-1 and D-2 with Objective D-4, the DPWH may have considered it more important to maintain a good relationship with OECF/Government of Japan (Objective D-4) rather than to keep a low construction cost and to complete the project early. But what could have been the reason for this consideration? It is possible that implicit threats to stop the loan by the OECF may have been made. The possible withdrawal of the loan may not have been communicated directly by the OECF because in principle the OECF never intervenes in the domestic affairs of the country receiving the loan. However, this may have been brought to the attention of DPWH by the JOC. We learned from the interviews, that the OECF and the JOC conducted a special seminar on OECF Guidelines during the project. So whether or not the OECF instructed the JOC to recommend a revision as a condition for the loan approval, somehow, the involvement of JOC in the project have significantly influenced the DPWH to make the necessary revision to the bidding process.

4.4.2 The OECF’s strategy

Suppose that the OECF came to know (probably through the JOC’s report) of the violation made by the DPWH against the OECF Guideline in the bidding process. Then, what options did the OECF have hypothetically? We list OECF’s hypothetical options as follows:

(O-i) To indirectly request the DPWH to carry out changes to improve the bidding process. The OECF would not directly confront the DPWH about the violation against the OECF guideline. However, it will carefully scrutinize the bidding process to ensure that it goes above board.

(O-ii) To indirectly request the DPWH to carry out changes to improve the bidding process. The OECF will not directly confront the DPWH about the violation against the OECF guideline. It will ignore the violation, however, it will reject all the bids received by the DPWH.

(O-iii) To directly recommend the DPWH to stop the bid price negotiation for the projects funded by foreign aid; and

(O-iv) To halt the loans to the project.

The following are the hypothetical objectives that the OECF may have had:

(O-1) To safeguard the interests of Japan. This may include maintaining the good reputation of Japan in other countries.

(O-2) To contribute to the development of the Philippines.

(O-3) To strictly follow the Guideline/Rules that conform to international standards.

We now discuss the possible objectives considered by the OECF. What could have been first priority among their list of objectives? It is most likely that the O-1 Objective of safeguarding the interests of Japan preceded all other targets. However, the OECF may have also been concerned about the development of the Philippines (O-2 Objective). It is also very likely that the OECF may have also wanted to strictly follow the guidelines that conform to
international standards (O-3 Objective). Essentially, to pursue O-3 Objective may also fulfill O-1 Objective. However, in some cases, these two objectives may get in conflict with one another. To illustrate, the reputation of OECF and consequently of Japan may be negatively affected if it will impose on the local government the strict implementation of the guideline/rules. In principle, the OECF does not interfere in the domestic affairs of the country receiving the loan, hence, it difficult for the OECF to pursue the O-3 Objective.

Next, we analyze the actions taken by the OECF vis-à-vis the options which they did not take. First, the OECF did not opt to halt the loan (O-iv Option). If this was the option taken by the OECF, we could expect problems relating to the diplomatic relationship between the Philippines and Japan. Hence, O-iv ran contrary to O-1 Objective. Second, since the OECF maintains never to directly intervene in the local affairs, it did not choose the O-iii Option, to directly recommend the DPWH to stop the bid price negotiation for the foreign aid projects. Third, the OECF did not choose Option O-ii to not directly confront the DPWH and ignore its violation of the OECF guideline, but instead reject all the bids received by the DPWH. If this was the choice of the OECF, this in effect will paralyze the bid process and will definitely bring about delays in the project completion. But more importantly, if all the bids received by the DPWH were completely rejected without any explanation from the OECF, tension/animosity may arise between the OECF and the DPWH. Option O-ii therefore does not pursue Objective O-2. Finally, the OECF has no other choice but to choose the Option O-i. So, did the OECF choose Option O-i? We have no evidence as to whether the OECF chose the option (O-i) or not. However, we suppose that the OECF had a strong incentive to follow the international standard at that time. In the interviews with the then-officers of the DPWH, they pointed out that the OECF projects used to be implemented less strictly than the other organizations such as the World Bank and the Asian Development Bank. We guess that the OECF had already become aware of such reputation among the local stakeholders. This could give the OECF the incentive to begin to operate in a stricter manner. If the OECF had strong incentive to change the situation, we may add to the above list another hypothetical option for OECF to choose from. That is,

(O-v) To request the JOC informally to influence the DPWH to improve the bid price negotiation system.

The interviews with the JOC revealed that the JOC had the several discussions regarding the DPWH’s violation of the OECF regulation. Although the JOC did not explicitly state this, it appears possible that the OECF requested the JOC to recommend to the DPWH to implement changes in the bidding system. And even if the OECF did not make the request explicitly, the JOC might have taken some actions to influence the DPWH to voluntarily make the desired changes, after the discussions with the OECF.

4.4.3 The JOC’s strategy

It is supposed that the JOC came to know that the DPWH violates the OECF Guideline in the bidding process. What then were the options JOC had, hypothetically? We list the hypothetical JOC’s options as follows:

(JOC-i) To ignore the violation and not discuss it with the OECF;
(JOC-ii) To ignore the violation (and not warn DPWH), but discuss it with the OECF;
(JOC-iii) To warn the DPWH about the violation without discussing it with the OECF; and
(JOC-iv) To warn the DPWH about the violation and discussing it with the OECF.

The hypothetical objectives that the JOC had are summarized as follows:
First, which objectives did the JOC prioritize most? On the one hand, the JOC should pursue the objectives (JOC-1) as a consultant. One of the ways to achieve the objective (JOC-3) is also by satisfying objective (JOC-1). On the other hand, the JOC also needs to pursue the target (JOC-2) as a private company. To get more profit, the JOC may need to take the efforts of reducing the cost and/or avoiding the unnecessary work. Thus, to achieving objective (JOC-1) may be, to some degree, in conflict with objective (JOC-2).

Next, how did the JOC evaluate the options? It may be better to discuss this by considering the following two sub-questions: how did JOC evaluate the options to discuss the violation with the OECF (JOC-ii) and (JOC-iv)?; and how did the JOC evaluate the options to advise or warn DPWH regarding the violation (JOC-iii) and (JOC-iv)? First, the JOC seems to have discussed DPWH's violation with the OECF. This is probably because the JOC wanted to contribute to the OECF as an adviser. As shown earlier, this may lead to JOC having a good reputation with the OECF. Next, the JOC recommended that DPWH move to amend the implementing rules and regulations of PD1594, since the JOC judged that continued violation of the OECF guideline is undesirable, especially from an ethical viewpoint. Additionally, the JOC may have been afraid that it would take a long time to complete the bid price negotiation between the DPWH and the bidders. If the negotiation process were to continue longer, the JOC would also be burdened with more costs, in violation of the objective (JOC-2).

4.4.4 Institutional Spillover in the Amendment of PD1594

The institutional spillover observed in the amendment of PD 1594 is discussed here. We focus on the interactions between the DPWH and the OECF. We discuss these interactions in the following two ways: the one is the situation in which the OECF does not have the option (O-v); and the other is the situation in which the OECD has the option (O-v). Note that the option (O-v) of the OECF means “To request the JOC informally to influence the DPWH to improve the bid price negotiation system”

Suppose that the DPWH has the two options: (D-ii) and (D-v). Note that (D-ii) means “to amend the Implementing Rules and Regulations of PD 1594 to exempt only the foreign aided projects from the ceiling price regulation” and (D-v) means “status-quo”. Next, assume that the OECF has the two options: (O-i) and (O-iv). Note that (O-i) means maintaining “status quo” whereas (O-iv) means “to halt the loans to the project”. Let us examine the combination of these options between two actors as the following matrix. This can be regarded as a simple non-cooperative game between the two players.

We set hypothetically the payoffs for each stakeholder in each pair of options. The left value in the payoff box means the payoff of the DPWH whereas the right value means the payoff of the OECF. First, assume that the payoffs are both zero when they choose the options of status quo. Second, both the DPWH and OECF receive the critical damages when the OECF chooses the option (O-iv). Third, under the condition that (O-i) and (D-ii) are chosen, the DPWH loses the benefit while the OECF earns the benefit. This is because the OECF can revise the PD1594 while the DPWH should take some efforts to change the PD1594. This game has the single

Table 2: Game on the PD1594 between the DPWH and the OECF (without the option (O-v))
Next, let us introduce the new option (O-v) to the OECF options. The new game can be described as follows: First, look at the case where the DPWH chooses (D-ii) while the OECF chooses (O-v) (located at the right-top box). We assume that the DPWH achieves a zero payoff. This payoff is equal to the payoff by choosing the option (D-v) when the OECF chooses the option (O-i). This reflects the DPWH’s situation in which no option is dominant over the other as shown earlier. On the other hand, OECF gains the positive payoff +c. This is because the OECF can bring about the revision PD1594 which will make it in line with its policies. Next, we take a look at the case where the DPWH chooses (D-v) while the OECF chooses the (O-v) (located at the right-bottom box). However, the DPWH gains the negative payoff –d because they may lose face or suffer a loss of reputation with the OECF. On the other hand, the payoff of OECF may also be negative (–e) because they need to use resources in the effort to intervene in the local affairs despite of their principle.

The equilibrium in this game depends on the final nature of payoffs in the matrix, particularly the values of \( b \) and \( c \). If \( b \) is greater than \( c \), the game outputs the single Nash equilibrium, that is, the “status quo equilibrium”. If \( b \) is equal to \( c \), the game outputs the two Nash equilibriums: the one is the “status quo equilibrium”; and the other is the pair of (D-ii) and (O-v). We call the new equilibrium as the “intervention equilibrium”. If \( b \) is smaller than \( c \), the game outputs the single Nash equilibrium, the “intervention equilibrium”. As the earlier sections show, the “intervention equilibrium” was observed in reality. This is taken to imply that \( b \) is equal to or is smaller than \( c \). This probably means that the OECF finds the greater benefit in recommending the DPWH to amend the PD1594 than doing nothing.

5. CONCLUSIONS

This paper identifies empirically the institutional spillover effects stemming from the road construction project funded by foreign aid and analyzes the mechanism of the effects by examining the behavioral process of the main actors – including the donor, recipient,
consultant company and local organizations. The Circumferential Road No.3 Construction Project in Manila, Philippines is used for the case study.

The paper demonstrated the example of institutional spillover effects in the transportation infrastructure project only during the implementation stage. Analyzing the behavioral process of the main actors also implicated the potential role of donor and consultant companies for institutional changes in the local organizations. However, there may be additional spillover effects after the project implementation. For example, the changes in the institutional system or the lessons learned during the implementation of one project may bring about an impact on other infrastructure projects, and may cause further spillover effects. To verify such additional institutional spillover effects, it is necessary to investigate them in the long-term viewpoints. Although the post evaluations of the investment projects are gradually being done by international aid organizations, these evaluations rarely include the institutional aspects of the project. It is highly recommended that these institutional evaluations be done to help open the “black box” to understand what really happened in the investment project. With this additional knowledge, it will become possible to better facilitate the transaction between governments and funding agencies.

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REFERENCES

Overseas Technical Cooperation Agency (1973) Urban Transport Study in Manila Metropolitan Area (UTSMMMA).
Overseas Economic Cooperation Fund (1994) Circumferential Road 3 and Makati-
Mandaluyong Road Projects: Final report.
Salehi, E. H. and Ramirez, M. T. (2003) Institutions, infrastructure and economic growth,