

Pork Barrel Politics & Japanese Coalition Formation

Comps Paper

Noah M. L. Brennan

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In 1993 thirty-eight years of one party rule in Japan came to an end as a cabinet including no members of the Liberal Democratic Party (LDP) formed for the first time since the party's creation in 1955. Until this point, calls for reform had been growing in order to amend several perceived flaws of the electoral system, and finally electoral and campaign finance reform was passed in 1994 under direction of the new coalition government. However, despite a very visible change in the House of Representatives (the lower house in Japan's bicameral legislature) from multi-member electoral districts of Single Non-Transferable Vote to a mixed-member system composed of single member districts (SMD) and proportional representation (PR), there is much debate about whether or not the reforms achieved the intended effects. Not only has the LDP participated in cabinet government every year since 1994, but they have been able to increase their percentage of seats in the lower house from 44.6% in 1993 to 48.5% in 2000. Indeed, with the 2005 election (beyond the scope of this study), the LDP's seat share rose to an amazing 62%, a share larger than even some enjoyed during the years of LDP majoritarian rule. This brings about the questions: *How has the LDP continued to dominate Japanese politics despite mixed-member electoral rules that were thought would bring about a more competitive electoral playing field and can we expect this domination to continue in the future?*

So why study such a unique democracy as Japan? Aside from the fact that it is important for the Japanese people to know if electoral reforms have accomplished the intended goals, assess whether politicians have followed through on promises and understand what the future may bring, understanding the effects of electoral and institutional reform in this specific case can be important for the field of comparative politics in general, as well. The Japanese electoral reforms are of the mixed-member variety. Mixed-member electoral systems were the defining electoral system of the 1990s, as countries such as Italy, Venezuela, New Zealand, and, of

course, Japan have all enacted reforms creating mixed-member electoral systems. A better understanding of whether mixed-member systems actually act in the theorized manner can help us understand what role the mixed-member system will continue to play in the twenty-first century.

In this paper, by examining the relationship between public work allocations from the central government and percentage of SMD seats at the prefectural level held by non-LDP coalition parties, I argue that although reform has brought about a change in institutional structure, the LDP will continue to dominate coalitional partners, and the Japanese political arena in general, as pork barrel enticements prevent opposition parties from consolidating. This argument directly challenges the perceived benefits of a mixed-member electoral system, positing that a mix of institutional rules and coalitional payoffs circumvented the intended outcomes of an electoral system that was thought would create two powerful alternating coalitions of government in Japan.

Recent Historical Background

Before reforms were passed in 1994, the lower house was elected in 130 electoral districts ranging in magnitude¹ between two and five (with the exceptions of one district of one and one of six). Voters each cast a single vote that could neither be transferred to another candidate within or across party in the event that the first choice candidate had more than enough votes to guarantee a seat. This method is known as Single Non-Transferable Vote (SNTV). An average district magnitude of four combined with the fact that votes could not be transferred meant that any parties hoping to control a majority of seats were forced to back at least two candidates in a majority of districts, causing intense intra-party competition between candidates

¹ Magnitude refers to the number of representatives elected from an electoral district.

who were very ideologically similar (Reed & Thies, 2001). The *koenkai*, or personal support group, arose as a way to campaign without detracting from another candidate from the same party's run at election. However, Fukai and Fukui note that 40% of LDP members in the early 1990s inherited their *koenkai* from family. As a result these people held an advantage in campaigning, highlighting the political entrenchment in Japanese politics that many found unfavorable (1996: 282).

Partly because of this perceived problem, as well as malapportionment² caused by electoral districts that remained the same despite rapidly shifting demographics, in 1994 reforms were passed in which the system of SNTV was changed to a mixed-member electoral system. Presently 300 parliamentary members are elected by SMD and 180 members are elected by PR party list in eleven districts of magnitude ranging from seven to thirty-three. As Shugart and Wattenberg note, one advantage of the mixed-member electoral system is its ability to combine the “best of both worlds” of electoral systems. The SMD seats are expected to create two strong competing parties according to Duverger's law,³ while retaining elements of proportional representation that represent smaller parties while maintaining two coalitional blocks coming from the SMD seats (2001: 26).

However, as previously mentioned, despite a noticeable shift to coalition government (since 1993 all governments aside from a brief period in 1998 when the LDP regained a majority have been coalitional), the LDP has continued its political domination. Reasons for this continued domination are often attributed to specific rules concerning the interplay between SMD candidates and PR list candidates. Firstly, candidates are allowed to run in both the SMD

² By 1983 malapportionment had reached its height, with a ratio of the maximum over the minimum seats per capita in districts reaching 4.41 (Horiuchi & Saito, 2003: 671)

³ Duverger's Law refers to the tendency that “the simple majority single-ballot system favors the two-party system” (Riker, 1982: 754).

and PR districts. If a candidate loses in the SMD, election is still attainable through party list. Furthermore, the “best loser” rule complicates this dual candidacy. A party is allowed to list as many candidates as they want in each rank of their party list; for example, three candidates in the number one spot, four in the number two and so on. Where the “best loser” comes into play is the use of highest number of SMD votes to determine how the individuals in each rank are ordered. Therefore, performance in a single seat district becomes an important factor regardless of whether the seat is actually won (Christensen, 1996). Krauss and Pekkanen argue that because of the “best loser” condition, candidates cannot rely on the party vote alone and will continue to seek a personally cultivated vote in order to become the best loser and increase their chances of attaining a PR seat. Therefore, the *koenkai* remains the main resource for voter mobilization and fundraising, detracting from the importance of party organizations (2004: 12).

Reform without a Change?

Despite what appears to be an example of *plus ça change*, there are two main fields of thought relating to the perceived success of the current Japanese political system in accomplishing the previously mentioned strengths of mixed-member systems. Reed and Thies (2001) argue that all hope is not lost for the emergence of two strong opposing parties competing in a Duvergerian nature. Instead, they posit that it is too early to assess the ultimate effects of electoral reform and that time is necessary for a political equilibrium to settle out. While these scholars reason that Duverger’s law is true, its validity is at the district level. Two nationally-centered parties are a natural result of single seat districts, but only after the dual nature of the individual districts are coordinated at a national level; a process that takes time. Reed and Thies

offer a decrease in the ENPP from 4.14 in 1993 to 2.94 in 1996 as proof that efforts to consolidate the political arena are progressing.

Contrary to this position, Mulgan argues that continued LDP domination of coalitions is likely to persist in the foreseeable future, positing several factors that contribute to the entrenchment of coalitional rule including an opposition that has gained coalitional experience, as well as the ideological flexibility of the LDP to court multiple coalitional partners. However, perhaps the most influential factor in this argument is the lack of strongly ideological parties. Since the end of the Cold War, the ability for strongly ideological parties, such as the Communist party, to survive in highly homogeneous Japan has decreased significantly. As a result, the nature of political parties without strong ideologies has been motivated by political opportunism. These “parties for hire” are forced to remain dependent on candidate-centered campaigns in order to achieve electoral goals (Mulgan, 2000).

Mulgan goes on to note that the LDP dominates coalitions for several reasons. Often the LDP’s coalitional partners view political success as closely linked to continued partnership with the LDP. As a result, smaller parties are more willing to ideologically bend to the wishes of the LDP (as evidenced by the Social Democratic Party of Japan’s cooperation with the LDP when evaluating the Japan-US Security Treaty in the late 90s). In doing so, however, these smaller parties run the risk of alienating voters who voted for them to specifically oppose the LDP, not join its ranks. Similarly, the LDP has a vested interest in selecting possible opposition partners strategically in a manner that pacifies opposition parties by moderating their political position through the previously mentioned interactions. Ultimately, Mulgan argues, the two-party system hoped for by a switch to a mixed-member system will remain unattainable as long as coalitional parties view political survival tied to cooperation with the LDP. She sums up her argument by

saying there is “little chance of forming a viable alternative government unless the Democratic Party can consolidate its leadership of non-LDP groupings. The ending success of the LDP in government has trained the opposition parties to think they can only be effective by sharing power with the LDP, not by confronting it” (Mulgan, 2000).

Building off of Mulgan’s assertions, I argue that if the LDP’s coalitional partners are able to allocate resources to home constituencies as a result of coalitional membership this is incentive enough to make continued partnership with the LDP a viable option in future elections. Furthermore, as the incentive to continue partnership with the LDP remains, the chances of opposition consolidation will decrease. However, if power to allocate governmental resources is not a result of membership in a coalition, I believe that the incentive to remain in such a situation is lost and movements toward opposition consolidation would become increasingly appealing.

The foundation of my argument lies on the belief that if governments are formed by coalition, involved parties must receive some benefit in order to retain the incentive to continue the partnership (Browne, 1982). Because reelection is the ultimate goal of politicians (Mayhew, 1974: 17) as well as that of political parties, and pork barrel politics are one way to increase the chances of being elected in candidate-centered campaigns (Lancaster & Patterson, 1990), increased government allocations as a result of coalition membership constitute sufficient incentive to remain in partnership with the LDP as opposed to forming a consolidated opposition.

In order to test the viability of continued coalitional partnerships with the LDP, the dependent variable in this study is the allocation of government resources as defined by government investment in public works per capita, and the independent variable becomes the presence of non-LDP coalition parties as defined by the proportion of a prefecture’s seats held by

non-LDP coalition representatives. It is important to note that the variable concerning amount spent by a prefecture on public works may include monies received from all levels of government: municipal, prefectural and national. Regardless, I believe this is still a relevant measure of central government investment, especially given that I control for a prefecture's expenditures in general. The financial data, which is compiled for the calendar year, will be paired with the cabinet that was in government when the budget bill was passed for the fiscal year (starting April 1) in order to best determine who was responsible for the funding that year. It is also important to note that the variables corresponding with the 1996 and 2000 elections will be comprised from the SMD seats only. While study of the ability of PR parties to allocate resources to their constituencies would be beneficial in further understanding the workings of Japanese politics, I currently do not possess the proper operationalization, as PR districts overlap prefectures for which I have gathered financial data. The study will be done at the prefectural level and I expect a positive relationship between the presence of non-LDP coalitional parties in a given prefecture and the amount of resources received from the central government. The independent variable is expected to vary with each election in which the proportion of seats held by coalitional parties change. In addition to this variable, the presence of the LDP in a given prefecture, as defined by the proportion of a prefecture's seats held by LDP representatives, during years in which they participate in government (expecting a negative association with the independent variable during coalition years) is used as a measure of control in order to understand the LDP's specific ability to allocate resources to their constituencies.

To control for a possible link between social spending and government allocation, I will use the proportion of the population of a given prefecture ages fourteen years and under or sixty-five years and over. It is possible that a high percentage of young and elderly in a population

create a greater need for social spending such as education and healthcare. Therefore, I expect this control to have a positive association with the dependent variable. I will use GDE per capita to control for that prefecture's fiscal strength, as it is possible that the greater the expenditures in general, the more a prefecture has spent money invested by the government. As a final control I will use the presence of representatives from a prefecture serving in cabinet posts within that prefecture. It is possible that those members of parliament in specific power positions are more capable of allocating resources to their home constituencies. As a result, I expect there to be a positive association between presence of representatives in power positions in a prefecture and the dependent variable.

Electoral data has been provided by Professor Steven Reed of Chuo University in Japan, and financial data comes from Professor Jun Saito of Wesleyan University and the Japan Cabinet Office's webpage. Data used as controls have also been graciously provided by Professor Saito, as well. All variables concerning seat share and party influence, with the exception of the presence of representatives from a prefecture serving in cabinet posts, deal with the House of Representatives only. While Japan is a bicameral system with an upper and lower house, the upper house (Hall of Councilors) does not play an active role as a vetoplayer in drafting and passing financial legislation and thus will be excluded from the focus of this study.

Methodology

As the goal of this study is to determine the viability of continued LDP domination of coalitions and politics, the years of focus are from 1994, when coalition government became the norm in Japanese politics, to 2003. These years will provide an effective time frame of study as they cover coalitions in both pre- and post-reform years. However, since the independent

variables, presence of LDP and non-LDP coalition parties, are operationalized differently pre- and post-reform (using the entire lower house for the years 1994 to 1996 while looking at SMD seats only from 1997 to 2003), cases from these two groups cannot be compared directly. Instead, a multi-faceted approach will be used in analyzing the ability of non-LDP coalition members to allocate resources to home constituencies.

Using the time-series cross-sectional method, incorporating panel-corrected standard errors in order to correct for panel heteroskedasticity, as the dependent variable in a prefecture could be influenced by the value for the same prefecture in the previous year (Montero, forthcoming; Beck & Katz, 1995), I will run two models corresponding to the two previously mentioned periods of coalition government. While current elections operate under the reformed electoral rules, I believe much can be gained by looking at coalition years in which representatives were elected under the old rules (the first model: years 1994 to 1996) in addition to looking at coalition years in which representatives are elected under the new rules (the second model: years 1997 to 2003). In both models the dependent variable, government investment in public works per capita, will remain the same. The independent variables of presence of LDP and non-LDP representatives, as previously stated, will be operationalized differently pre- and post-reform: looking at all representatives in pre-reform years and only those coming from SMD seats in post-reform years. Again, this study is done at the prefecture level, and both models will look at all of the forty-seven Japanese prefectures. Next, I will compare means of the dependent variable of government investment in public works per capita in pre- and post reform years through the use of paired t-tests in order to determine if the allocation levels changed significantly with a change in electoral rules.

Results

Results of the statistical analysis show inconsistent predictors of government investment in public works per capita at the prefecture level in coalitions before and after representatives began to enter office under the new electoral rules. In order to gain a greater understanding of how electoral reform may have altered the ways in which coalition governments function, and thus the possible advantages held by the LDP in dominating Japanese politics, I will discuss in more detail the differences between the pre- and post-electoral reform coalition years.

The first model (Table 2 in the appendix) tests the effects of LDP and non-LDP coalitional presence on government expenditure in public works per capita in coalitions in which old electoral rules governed the makeup of the lower house. This model includes the years 1994 to 1996. Nineteen ninety-four marked the first coalition government in modern Japanese politics, and is characterized by a cabinet completely excluding the LDP from coalitional government. The remaining two years are comprised of mixed LDP and non-LDP coalitional partnerships between the LDP and the Japan Socialist and *Sakigake* parties. I will use government investment in public works per capita as the dependent variable, and both the proportion of a prefecture's seats held by LDP representatives, as well as the proportion of a prefecture's seats held by non-LDP coalition party representatives as the main independent variables in order to assess the incentive of non-LDP coalition parties to remain in partnership with the LDP. This model is run using the time-series cross-sectional method with panel-corrected standard errors, looking at one-hundred forty-one observations (forty-seven prefectures over three years) and gives us an R-squared value of .67.

In this model we can see that both the proportion of a prefecture's seats held by LDP as well as non-LDP coalitional representatives are statistically significant and positively associated

with the dependent variable, while the proportion of a prefecture's seats held by non-coalitional members is statistically insignificant, with a very weak positive coefficient of .009. The proportion of a prefecture's population composed of citizens fourteen years of age and younger as well as sixty-five years of age and older are both statistically significant and positively associated with the dependent variable. The cumulative number of days in which representatives from a prefecture held cabinet posts is also significant, however with a negative association with the dependent variable. A prefecture's gross domestic expenditure per capita, while displaying a positive coefficient, is not statistically significant.

The negative coefficient on the cumulative number of days in which representatives from a prefecture held cabinet posts is not surprising despite the intuition that prefectures with representatives in power positions (cabinet posts) would be more able to bring back government investment, as it is possible this portrays attempts by coalition parties to allocate resources to areas that do not firmly support the LDP or other coalition parties in order to strengthen their presence in these weak areas. Cabinet Ministers are likely to be high-ranking members in coalition parties. It is quite likely that such high-ranking party members come from constituencies that are staunch LDP or non-LDP coalitional party supporters. Therefore, the costs to actively keep party support high in these constituencies are not as great as in constituencies that do not support the LDP or coalitional parties as strongly. As a result, more government resources can be allocated into these constituencies in order to more entrench support for coalition parties' representatives in a system where support is often garnered through pork barrel politics. This follows the rationale of Horiuchi and Saito's (2003: 677) explanation of a negative correlation between LDP seat shares and public investment as an LDP effort to "buy off marginal voters".

The coefficient of a prefecture's gross domestic expenditure is positive, as expected, which logically indicates that those prefectures that spend more, in general, are more likely to spend more money provided by the central government on publics. However, the coefficient of .001 is very weak and statistically insignificant, especially when compared to the strong predictive power of the variables concerning the proportions of youth and elderly in a prefecture. Both variables are statistically significant, and display very high coefficients of 2.39 and .92 for proportion of a prefecture's population fourteen years of age and younger and proportion of a prefecture's population seventy-five years of age and older, respectively. This indicates that social spending is the greatest predictor of amount of money received from the central government and spent on public works, as the young and elderly are the demographics most in need of educational and welfare spending.

Taking into account the importance of social spending in predicting the dependent variable, it is important to note the significance of the proportion of a prefecture's seats held by both LDP and non-LDP coalition party members. Even more noteworthy is the coefficient of the proportion of seats held by non-LDP coalitional party members, which is roughly twice that of the proportion of seats held by LDP members, indicating that in these early coalition governments comprised of representatives who came into office under old electoral rules, the LDP was at a disadvantage compared to its coalitional counterparts in bringing back "pork" to its constituencies.

The trends of the first model, aside from the importance of social spending, are decidedly different in the second model (Table 2 in the appendix), which looks at coalitions formed under new electoral rules. The first elections governed by the mixed-member electoral system were held in November of 1996, making the first fiscal budget approved by representatives elected

under those rules that for the year of 1997. Therefore, this model looks at the years 1997 to 2003, incorporating three-hundred twenty-nine cases (forty-seven prefectures over seven years). With an R-squared value of .52, the second model still predicts the variance in the dependent variable quite well, however somewhat less so than the first. The dependent variable of the first model of the government investment in public works per capita at the prefecture level remains the same. Similarly, so do the main independent variables of the proportion of a prefecture's seats held by LDP representatives, and the proportion of a prefecture's seats held by non-LDP coalition party representatives. However, in the second model the operationalization of these two variables changes dramatically with the change in electoral rules. As the mixed-member nature of the new system divides the House of Representatives into representatives elected by both SMD and PR, the eleven PR districts overlap prefectures, for which I have gathered financial data. Therefore, only representatives whose constituencies can be matched to a prefecture (SMD representatives) are used in assessing the proportion of a prefecture's seats held by LDP and non-LDP coalition members. In this model, the variables concerning a prefecture's proportion of seats held by non-coalition members and cumulative days in which a prefecture's representatives held cabinet positions were excluded. The first of the two variables was excluded because an almost complimentary relationship between the proportion of a prefecture's seats held by non-coalition members and the proportion of a prefecture's seats held by LDP representatives created problems of multicollinearity. The second variable was excluded due to a lack of data for the years after 2001.

Most important in the second model is the shift from positive to negative in sign for the coefficients of the proportion of a prefecture's seats held by non-LDP coalitional as well as the proportion of a prefecture's seats held by LDP representatives. While the variable concerning the

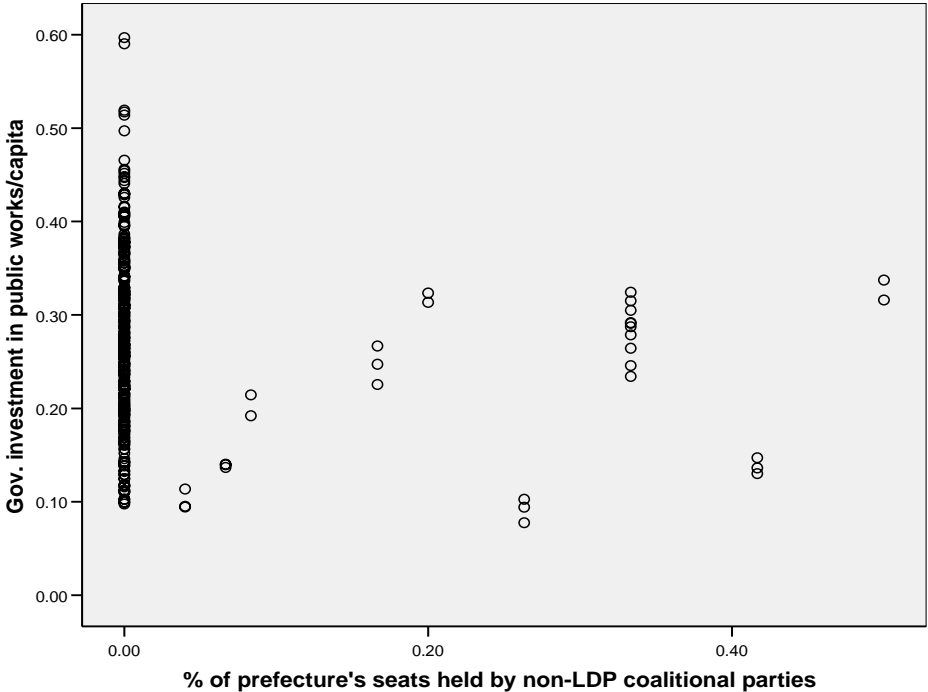
proportion of a prefecture's seats held by LDP representatives' coefficient is very small and statistically insignificant, that for the proportion of a prefecture's seats held by non-LDP coalitional representatives is statistically significant and as greatly negative as it was positive in the first model. Like the first model, the proportions of youth and elderly in a prefecture are positively associated with the dependent variable and statistically significant, this time with the proportion of youth displaying the greater coefficient of the two variables. Again, this highlights the importance of social spending in predicting government investment of public works. Differing from the first model, gross domestic expenditures per capita switches sign to become negative. However, the very small coefficient of $-.003$ combined with the statistical insignificance do not allow for any substantial judgments to be made.

From these results, one could gather that in post-reformation coalitional politics partnership with the LDP does not increase coalitional parties' ability to bring pork to their constituencies. However, I believe a greater insight can be gained by looking more in depth at the nature of post-reform Japanese coalitional politics and by observing only those prefectures that display a presence of non-LDP coalitional representatives.

In pre-electoral reform coalitions (brought to the House of Representatives through the noteworthy 1993 elections, which first took the LDP out of majority rule) there was a much more widespread presence of non-LDP coalitional representatives throughout the forty-seven prefectures when compared to the presence of non-LDP coalitional representatives in post-reform coalitions. This is evidenced by the 87.2% of the one-hundred forty-one (forty-seven prefectures over three years) pre-electoral reform cases which have at least one seat filled by non-LDP coalitional parties, and the comparatively small 9.1% of the three-hundred twenty-nine (forty-seven prefectures over seven years) post-electoral reform cases which have at least one

SMD seat filled by non-LDP coalitional parties. The very small number of cases in post-electoral reform Japan displaying a presence of non-LDP coalitional parties can be see clearly seen in looking at figure 1, below.

Figure 1: Plot of % of Prefecture’s Seats Held by non-LDP Coalitional Parties Compared to Government Investment in Public Works per Capita in post-Electoral Reform Cases



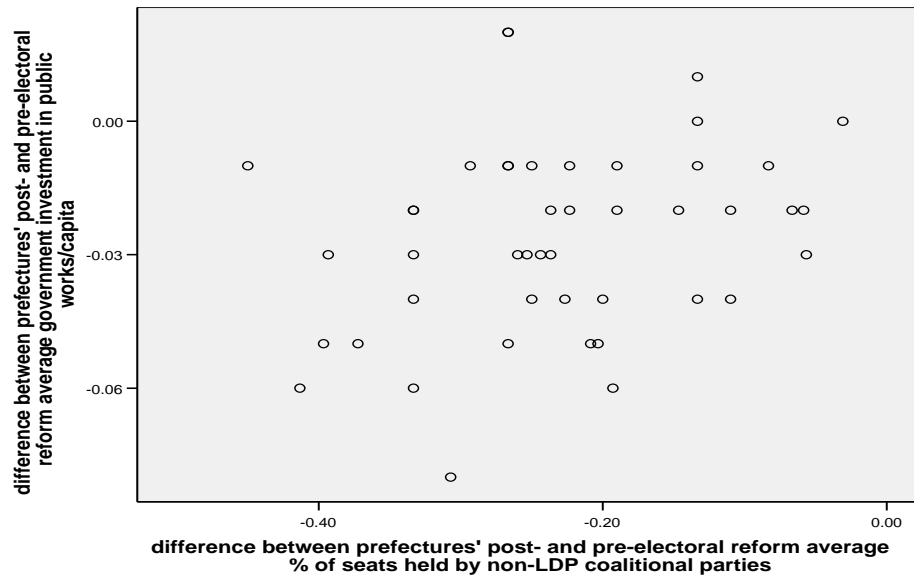
While these 9.1% of cases in post-electoral reform coalitions are clearly too few to greatly affect the overall patterns of government distribution of resources, an examination of just these cases can provide insight into the workings of Japanese coalition governments. Indeed, when looking at just those cases with a presence of non-LDP coalitional representatives, we can see very different relationships between the independent and dependent variables in post-electoral reform coalitions. Running an OLS regression (Table 3 in the appendix) not a time-series cross-sectional regression as the cases are not representative of every prefecture and every year, incorporating the same variables used in model two, the association between the proportion of a prefecture’s seats held by non-LDP coalitional representatives and the level of government

expenditures on public works per capita in a prefecture changes from negative to positive. The association between the proportion of a prefecture's seats held by LDP representatives and the dependent variable, like model two, remains negative and displays a coefficient of $-.055$ while the coefficient of non-LDP coalitional representatives is $.048$. This implies that in only those prefectures with a presence of non-LDP coalitional representatives, the greater the presence, the greater the level of government expenditures in public works. Important to note, however, is that these relationships are both not statistically significant. Despite this, further testing of these relationships in the future should be undertaken in order to completely understand the role of pork in coalition formation in post-electoral reform Japan.

Lastly, a comparison of pre- and post-electoral reform averages of the dependent and independent variables can lend insight into functioning of Japanese coalitional politics. Using a paired-sample t-test to compare the averages of government investment in public works per capita in pre-electoral reform years to those of post-electoral reform years, a mean difference between averages is found to be $.023$, showing that government investment in public works per capita generally decreased after electoral reforms were passed. However, there may be reason to believe the average decrease in government investment in public works per capita was affected by the change in average proportion of a prefecture's seats held by non-LDP coalitional representatives before and after electoral reforms were passed. Running a bivariate OLS regression (Table 4 in the appendix) using the average change of a prefecture's proportion of seats held by non-LDP coalitional representatives before and after electoral reforms to predict the average change of a prefecture's level of government investment in public works per capita (excluding the outliers of the prefectures of Shimane and Fukuoka), we can see a positive association with a coefficient of $.06$ that is statistically significant. This shows that prefectures in

which the average proportion of seats held by non-LDP coalitional representatives did not decrease as much after representatives began entering office under reformed rules tended to have a lower decrease in average government investment in public works per capita after electoral reform. The positive association between the difference between a prefecture's post- and pre-electoral reform average percent of seats held by non-LDP coalitional parties and difference between a prefecture's post- and pre-electoral reform average government investment in public works per capita can be clearly seen by looking at figure 2, below. However, an R-squared value of only .081 shows an indeterminate model, indicating further research into this relationship is required to more fully understand this interesting interplay.

Figure 2: Comparing Differences in Prefecture's Average pre- and post-Electoral Reform % of Seats Held by non-LDP Coalitional Parties and Government Investment per Capita



Discussion

To what, then, can we attribute the varying levels of importance of non-LDP coalitional members before and after electoral reform began to govern the elections for the House of Representatives? To begin, I will examine several visible differences between the makeup of

both the coalitions as well as the House of Representatives in the two time periods of coalition government studied.

Firstly, closely linked with the previously mentioned increase in the LDP's share of seats in the House of Representatives is the LDP's dominance of the percentage of seats held by the ruling coalitions. In 1995 and 1996, the years of the first government in which the LDP rejoined coalitional membership, of the three-hundred eighteen seats occupied by coalitional parties' representatives, the LDP held two-hundred twenty-eight, or 71.7%. This is compared to the 93.3% of seats occupied by coalitional parties' representatives held by the LDP during the years of the first post-electoral reform coalition government (years 1997 and 1998). From 2001 to 2003 the LDP's share of coalitional seats declined slightly from previous levels but remained a high 86%.

That the LDP's increase in share of lower house seats coincided with its increase in the percentage of seats occupied by coalitional parties' representatives is of no coincidence. When forming coalition governments, it is natural that only a minimal coalition, one which accomplishes the goal of a coalitional majority with the fewest number of parties and fewest percentage of the house, would be sought by the leading party in order to minimize the payoffs required to "buy" coalitional support. Therefore, as the LDP share of seats in the house increases, the number needed to maintain a coalitional majority decreases and the LDP share of coalitional seats increases. As the LDP domination of coalitional government increases, it is possible that less payoff is required to maintain the support of coalitional partners, as coalitional partners are not extremely vital in ensuring a coalition is able to be formed. As previously mentioned, the domination by the LDP of coalitions increased as governments began to be elected under the new electoral rules, providing a possible explanation for the failure of the proportion of a

prefecture's seats held by non-LDP coalitional representatives to have a significant, positive association with the dependent variable of government investment in public works per capita at the prefecture level.

Conclusions

This study is able to highlight the differing levels of importance the presence of non-LDP coalitional members plays in predicting government investment in public works per capita in pre- and post-electoral reform coalition governments. In pre-electoral reform coalition governments, I find that the percentage of a prefecture's seats held by non-LDP coalition parties' representatives is indeed positively associated with government investment in public works, with a coefficient almost twice that of the percentage of a prefecture's seats held by the LDP.

However, when looking at post-electoral reform coalition governments, the ability of the presence of non-LDP coalitional representatives no longer is positively associated with government investment in public works. This is not to say, however, that a non-LDP coalitional presence plays no role at all in the allocation of government resources; several factors may limit the strength of the expected associations. Firstly, as mentioned, LDP seat share of the lower house has increased, coinciding with an increase in LDP domination of coalitional partners. Therefore, the very small parties in partnership with the LDP are unable to hold enough sway to drastically alter the methods by which government resources are allocated as a result of the small number of localities from which they come. But when looking at just those cases which exhibit a non-LDP coalitional presence, we can see a relationship that follows the predicted interactions between LDP and non-LDP coalitional parties. Within these cases, as the percentage of a prefecture's seats held by non-LDP coalitional parties increases, so does government investment

in public works per capita. Similarly, in these same cases, the percentage of a prefecture's seats held by the LDP is negatively associated with government investment in public works per capita. This may be a conscious attempt by the LDP to reward its coalitional partners by allowing more government resources to be sent to constituencies with a higher concentration of non-LDP coalitional parties than those places with a lower concentration of non-LDP coalitional parties. However, this reward is scaled back to be consistent with the small role the non-LDP coalitional parties play in both the coalitions as well as on a national scale. It is possible these small parties view partnership with the LDP as the only viable option in increasing their limited influence on Japanese politics, and reinforced by a positive association between their prefectural presence and government investment in public works they believe it is possible to build of this initial gain to increase their political influence.

While the small number of prefectures which display a non-LDP coalitional presence may not be enough to positively affect Japanese government investment in public works as a whole, there does appear to be a relationship between a prefecture's average change in non-LDP coalitional presence and average change in government investment in public works per capita pre- and post-electoral reform. As previously discussed, a prefecture's average government investment in public works per capita tended to decrease throughout Japan after governments came to office through electoral reform. Also previously noted is the tendency for presence of non-LDP coalitions to decrease in the period post-reform (a result of the number of non-LDP coalitional representatives needed to make a coalitional majority decreasing as the LDP's seat share of the lower house increased). And while non-LDP coalitional party presence in a prefecture may not have positively increased government investment in public works per capita on the whole, the previous display of a relationship between average change in non-LDP

coalitional presence and average change in government investment in public works shows there is reason to believe that in prefectures with a lower decline in the percentage of seats held by non-LDP coalitional SMD members in post-electoral reform governments when compared to the percentage of seats held by non-LDP coalitional members in pre-electoral reform governments led to a lower average decline in government investment in public-works per capita during the same periods. This observation lends importance to the role non-LDP coalitional partners play when observing change between the two forms of coalition government examined by this study, rather than the importance of roles played isolated in terms of just pre-electoral reform and post-electoral reform coalitions.

Going back to the original question, can the results of this study be used to determine the likelihood of opposition consolidation in the face of the LDP? I had previously argued that if increased pork barreling was the result of coalitional partnership with the LDP, then incentives to remain in cooperation with the LDP would continue, as would the LDP's domination of Japanese politics. The results of this study are somewhat inconclusive, in that while the percentage of a prefecture's seats held by non-LDP coalitional representatives does not affect government investment in public works as a whole in Japan, the positive association between the variables in just those prefectures with a non-LDP coalitional presence indicates the expected relationship could be taking place on a smaller scale. More study of not just a prefecture's non-LDP coalitional presence in total, but of the relationship between individual parties' presence before and after coalition with the LDP could help to further understand if pork barrel incentives play any role in the failure of opposition consolidation Mulgan hypothesized to be the reason for continued LDP domination. Study of the non-coalitional parties' effect on government investment in public works when compared to that of non-LDP coalitional parties' could also

help to understand if coalitional partnership with the LDP brings any rewards when compared to those parties who are not partnered with the LDP.

At the same time, further research into the role played by representatives coming from PR districts could be beneficial in understanding possible sources of government allocation. During the 1997-1998 as well as during the 2001-2003 government the majority of non-LDP coalitional representatives were elected by PR, 64.7 and 63.2%, respectively. This is compared to the only 29.3% and 24% of LDP representatives elected under PR during the same periods. Traditional political thought says that candidates running for election in PR districts are more likely to develop campaigns based on party issues rather than a reliance on personal appeal and individualistic politics. There are several reasons behind this. The first may be absent from some systems depending on the method of candidate selection, but in systems such as Japan's it is the political party that nominates the candidate for list PR. Furthermore, the PR list is displayed by party; leaving out candidate names takes away the personal focus, and in theory gives the political party more power to take a stance on issues and frame campaign platforms.

However, as previously mentioned, Japan is unique in that rules governing the interplay between SMD and PR seats complicate the political incentives. As Carlson (2003:198) notes, the success of candidates in SMD affects the results of PR. Furthermore, many PR incumbents "utilized their position under the PR tier to campaign for the SMD race in their next bid to win office." If the best way to secure votes in SMD seats is through the highly personalized *koenkai* system, then it would make sense to see similar campaigning practices employed by PR incumbents as well. However, because of inconsistencies between the level at which electoral and financial data come from this study was forced to examine the role of representatives elected through SMD constituencies only. Separate study of the relationship between government

allocations to the eleven PR blocks and the percentage of seats from those blocks that are held by non-LDP coalitional representatives, or determining the home-prefecture of PR representatives and incorporating them into this study could help to further understand the role of non-LDP coalitional parties on government investment in public works.

In the past, there have been many attempts to understand the LDP's ability to control government allocations. However, in this relatively new era of Japanese coalition government, aside from the attempts of this study, similar studies examining non-LDP coalitional parties' ability to control government allocations, to the best of my knowledge, have yet to be undertaken. While from the results of this study it appears that in post-electoral reform Japan non-LDP coalitional parties' SMD representatives do not greatly affect the amount of government investment in public works in general, hints at meaningful relationships found when examining only those parties with a non-LDP coalitional SMD presence make the case that it is too soon to discount the roles pork barrel enticements may play in coalition formation and the opposition failure to consolidate.

Appendix

Table 1: Summary Statistics of Dependent and Independent Variables

Variable	Obs.	Mean	Std. Dev.	Min.	Max.
Government Investment in Public Works per Capita (by prefecture in millions of yen)	470	.27	.092	.08	.6
Proportion of seats in a given prefecture held by LDP (pre-electoral reform)	141	.52	.17	.18	.89
Proportion of seats in a given prefecture held by non-LDP Coalition Parties (pre-electoral reform)	141	.26	.18	.0	.79
Proportion of seats in a given prefecture held by non-Coalition Parties (pre-electoral reform)	141	.39	.2	.0	.89
Proportion of seats in a given prefecture held by LDP (post-electoral reform)	329	.68	.27	.0	1

Summary Statistics cont.

Variable	Obs.	Mean	Std. Dev.	Min.	Max.
Proportion of seats in a given prefecture held by non-LDP Coalition Parties (post-electoral reform)	329	.024	.085	.0	.5
Cumulative days lower house member from prefecture served in cabinet post (pre-electoral reform)	141	1981.84	4.5	.0	7748
GDE/capita (by prefecture in millions of yen)	470	3.68	.7	2.57	7.24
Proportion of prefecture population 14 and under	470	.16	.017	.12	.25
Proportion of prefecture population 65 and over	470	.17	.034	.08	.26
Difference between average pre- and post-electoral reform government investment per capita (by prefecture)	47	-.023	.025	-.08	.05

Summary Statistics cont.

Variable	Obs.	Mean	Std. Dev.	Min.	Max.
Difference between average pre- and post-electoral reform % seats held by non-LDP coalition parties (by prefecture)	47	-.24	.11	-.45	-.03
Average pre-electoral reform government investment in public works per capita (by prefecture)	47	.29	.084	.12	.47
Average post-electoral reform government investment in public works per capita (by prefecture)	47	.27	.091	.1	.52

Table 2: TSCS Regression using PCSE to Predict Dependent Variable: Government Expenditures in Public Works per Capita

Variable	Model 1	Model 2
	Pre-Electoral Reform Coalition Government (1994-96)	Post-Electoral Reform Coalition Government (1997-2003)
Proportion of seats held by LDP	.059 (.029)**	-.007 (.011)
Proportion of seats held by Non-LDP Coalition Parties	.118 (.034)***	-.163 (.043)***
Proportion of seats held by non-Coalition Parties	.009 (.026)	
Cumulative days lower house member from prefecture served in cabinet post	-5.07e-06 (.000)***	
GDE/capita (by prefecture)	.001 (.002)	-.004 (.003)
Proportion of prefecture population 14 and under	.92 (.102)***	3.453 (.408)***
Proportion of prefecture population 65 and over	2.39 (.104)***	1.987 (.189)***
Constant	-.295 (.047)***	-.606 (.048)***
R-Square	.667	.523
N	141	329

Significance Levels * p<.10, ** p<.05, *** p<.01

Table 3: OLS Regression to Predict Dependent Variable: Government Expenditures in Public Works per Capita

Variable	Model 3
	Post-Electoral Reform (Presence of non-LDP Coalition Only)
Proportion of seats held by LDP	-.055 (.061)
Proportion of seats held by Non-LDP Coalition Parties	.048 (.063)
GDE/capita (by prefecture)	.029 (.012)
Proportion of prefecture population 14 and under	4.656 (.62)***
Proportion of prefecture population 65 and over	2.705 (.487)***
Constant	-1.1 (.205)***
R-Square	.818
N	31

Significance Levels * p<.10, ** p<.05, *** p<.01

Table 4: Bivariate OLS Regression to Predict Dependent Variable: Difference in Average Government Expenditures per Capita between post- and pre-Electoral Reform (by prefecture)

Variable	Model 4
	Averages in pre- (1994-1996) and post-Electoral (1997-2003) Reform (excluding outliers of Shimane and Fukuoka)
Difference in Average Proportion of non-LDP Coalitional Seats in post- and pre-Electoral Reform (by prefecture)	.06 (.031)*
Constant	-.012 (.008)
R-Square	.081
N	45

Significance Levels * p<.10, ** p<.05, *** p<.01

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