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**Who Eats the Most? :
Quantitative Analysis of Pork Barrel
Distributions in the Philippines**

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Abstract

Since a pork barrel is crucial in buying off voters, competition over the distributions among legislators has been considered as one of the main factors in producing congressional political dynamism and congressional institutions. This paper aims to test the theory of pork barrel distributions in the Philippines through OLS regression on the quantitative data of the 12th congress. The results show that some attributes of legislators are statistically significant in estimating pork barrel allocations, but, do not support the hypothesis that the legislators' proximity to leaders is a determining factor in the distributions.

Keywords: pork barrel, legislative politics, budget, the Philippines

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Introduction

Under the separation of powers, the administrative branch of government is assumed to have more information about the demands and necessities of projects and programs, because it manages these directly. The legislative branch has an inferior status in terms of such information. Therefore, the administrative branch usually plans and implements such projects and programs. The legislative branch is expected to check the administration's plans as an agent of the voters.

A pork barrel does not fit this demarcation of work. Pork barrels are projects and programs, or the funds for these, which are planned by legislators for their local constituencies. The technical details are diverse, depending on the political system, but these projects are not necessarily part of the administration's policy programs¹.

Pork barrel politics has been an attractive topic for scholars, because it is seen as being politically significant as patronage for legislators to buy off voters, especially in underdeveloped areas or countries, where voters tend to depend on such distributions. Legislators usually strive to secure enough pork barrel to get re-elected. Competition over the distributions among legislators has been considered as one of the main factors in producing congressional political dynamism and congressional institutions².

This paper aims to test the theory of pork barrel distributions in the Philippines³. Under its presidential democracy, pork barrel is always the main concern of the Philippine Congress, especially the House of Representatives. Due to the single member district system, as well as the poverty problem in their constituencies, house members are keen to introduce pork barrel projects into their own districts insofar possible, for re-election purposes⁴.

What factors determine the manner in which pork barrel funds are distributed among legislators? It is perceived by the local media in the Philippines that the president has a significant say in the distributions. They see the power over the actual release of funds as an

¹ The term "pork barrel" is said to originate in the American South prior to the Civil War. Slave owners provided barrels of salted pork for their undernourished slaves on holidays, which caused a frantic rush for the barrels. Stampedes of legislators seeking subsidies are reminiscent of such a slave rush (Evans 2004, p2).

² The distributive politics theory and the alternative theories reacting to it constitute the main works of analyzing American congressional politics. See Shepsle and Weingast (1995). As a classical work on pork barrel politics in the USA, see Ferejohn (1974).

³ As one of the few sound empirical and quantitative tests of the political role of pork barrel politics in the Philippines, see Kasuya (2005).

⁴ The Philippine Congress is bicameral, composed of a 24-member senate and a 250-member (usually less numerous because some of the party list seats are not filled) House of Representatives. Because senators are elected by a national constituency, the significance of pork barrel for them is different from that of the House.

effective political tool for the president to buy the support of house members⁵. Is this true? If so, does the president's pork barrel discretion eventually promote party switching and the formation of a large majority in congress in the president's favor? Alternatively, do the abilities and skills of house members themselves matter in gaining larger shares rather than the president's intervention? This paper addresses these questions.

Theories

The theories of pork barrel distributions can be classified into two categories. One is to emphasize the discretion of national leaders (the party center or the president). It focuses on the aspect of the leader's control over the rank-and-file members in congress (or in the party) through the use of pork barrel. The other theory is concerned with the attributes of legislators. It emphasizes the legislator's status in congress, their expertise and seniority, as determining factors in the distributions. The former could be called the supply-side explanation, while the latter may be called the demand-side explanation.

The supply-side explanation:

When everyone wants to have their share of pork barrel, and if someone has the power to decide the manner of distributions, the person who holds power would naturally be able to control the behavior of people who desire pork barrel. If the executive (whether the president or the prime minister) can decide the manner of pork barrel distributions, she is supposed to use the power to consolidate her political base in congress and the party. Politicians would be willing to join the ruling party, or the ruling coalition, in pursuit of fund allocations. If congressional leaders, like the speaker of the House, can decide the distributions, they have more chance of forming a large majority coalition in congress. Alternatively, if the party central can decide allocations, that party can exercise strong discipline over its members. The members of congress who are cooperative with legislative leaders are expected to receive more pork barrel than those who are not. If we assume this theory, we find that members of the president's party, or majority members of congress, are granted more funds than non-members (*Hypothesis 1*).

The demand-side explanation:

It is also possible to hypothesize that those who hold higher or crucial positions obtain larger shares by bargaining with the leaders. For example, chairs of congressional committees have such influential status, because they hold a strong agenda-setting power that the executive needs to obtain their support to legislate its preferred programs. The speaker and floor leaders are in a similar position. If pork barrel distributions are decided by the legislators, without much discretion or intervention by the executive, the status in congress or in the party is much more crucial to distributions. Such leaders supposedly initiate and coordinate the distribution scheme among members. If this is true, congressional leaders are expected to have a larger share of pork barrel (*Hypothesis 2*).

⁵ See Gutierrez (1998, pp. 78-79) for such functioning of pork barrel politics during the Ramos Administration.

Seniority is seen as another important factor. On one hand, senior members are expected to hold higher positions in congress, or in the party. They may be more influential on how to distribute funds than newcomers do. On the other hand, senior members may have more skills and knowledge in identifying pork barrel projects. The longer they hold their congressional seats, the more they are expected to receive pork barrel (*Hypothesis 3*).

Membership of committees may matter, too. Members of the appropriation committee have more chance of influencing the budget than others do. Alternatively, members of the rule committee may receive more funds, based on their influence over congressional management. Additionally, committee membership can be a measure of the legislators' expertise. Those who are members of pork barrel-related committees, like public works and transportation, have more information about pork barrel-type projects than members of the less pork-related committees, like foreign affairs. It is expected that membership of committees causes differences in pork barrel allotments among legislators (*Hypothesis 4 and 5*).

Finally, the socio-economic and political situation in a legislator's district of origin may be significant. Because pork barrel funds are usually spent on public works or poverty-alleviation programs, underdeveloped areas need such funds more than developed ones do. Meanwhile, a legislator from a highly-competitive district needs more funds to be re-elected in the next election. Legislators from such districts are supposed to receive more pork barrel funds (*Hypothesis 6 and 7*).

The System of Pork Barrel Distributions

Before analyzing the data, the pork barrel system in the Philippines should be described briefly. Pork barrel funds are provided in general appropriation acts as independent items, but without mention of specified projects, especially since the 1990s. Although the names of budget items may be changed several times, annual general appropriations acts contain items where each legislator (either a senator or a house member) is given fixed amounts. For example, since Gloria Macapagal-Arroyo assumed the presidency in 2001, legislators have been given allocations for two items, namely, the Priority Development Assistance Program (PDAF) and the budget of the Department of Public Works and Highways (DPWH). While an appropriation act is prepared in congress, no specific projects need be listed, since these items are lump-sum allocations. A legislator is given a free hand to identify her pet projects and programs, within budget, and requests the concerned departments to implement them, after a general appropriation act has been promulgated⁶. However, funds are not released automatically. The

⁶ For example, in fiscal year 2002, the senators were given 150,000,000 pesos each, while members of the House received 50,000,000 pesos each. The pork barrel funds comprise 1.6 percent of the entire general appropriation. 19.1 percent of the budget for the Department of Public Works and Highways was allocated to the members of Congress as pork barrel (based on the data from the Department of Budget and Management). See also, Parreño (1998) for the mechanism of pork barrel distribution in the Philippines.

president can halt cash disbursement, through the Department of Budget and Management (DBM), if the necessary funds are not available in state coffers. As mentioned above, the president's power over the release of cash is seen as a strong political tool to control congress.

Hypotheses and Variables

To test the foregoing explanations of pork barrel distributions, I would like to test the six hypotheses deduced from the explanations.

H1: Members of the pro-leader group (the president's party and the majority in congress) receive more pork barrel funds than non-members do.

H2: Congressional leaders receive more pork barrel funds than rank-and-file members do.

H3: Senior members of congress receive more pork barrel funds than junior ones do.

H4: Members of influential committees receive more pork barrel funds than non-members do.

H5: Members of pork-related committees receive more pork barrel funds than non-members do.

H6: Members of congress elected from less-developed areas receive more pork barrel funds than those from more developed areas.

H7: Members of congress elected in elections that are more competitive receive more pork barrel funds than those who were elected in less competitive elections.

I will examine these hypotheses based on the data of the House of Representatives of the 12th Congress in the Philippines (2001-2004). I limit the subject of analysis to the 12th Congress due to non-availability of data. Pork barrel allocations to legislators were not disclosed by the DBM before the 2001 fiscal year. Memberships of the committees of the 13th Congress was not available in organized form, not even from the congressional secretariat. I will concentrate on the House of Representatives, because pork barrel is more politically significant in the House than in the Senate, reflecting its electoral system⁷. For analysis, OLS regression is used as an estimation method.

The dependent variable is *pork*, which is the amount of pork barrel allocated to each legislator. This is the sum of allocations from the PDAF and allotted amounts in the DPWH budget. (For variables, see Appendices 1 and 2.)

Two independent variables have been prepared to measure the legislators' proximity to leaders, namely *pres_party* and *majority*. *pres_party* is a dummy membership variable of the president's party (if she is a member, *pres_party* = 1, otherwise 0), while *majority* is a dummy membership variable of the majority in congress (if she is a member, *majority* = 1, otherwise 0). If these variables are statistically significant in estimating pork barrel allocations, H1 will be supported.

⁷ The single member district system, where most of the house members are elected, encourages politicians to cultivate personal votes. The senators are elected nationally, and voters can list twelve names on one ballot. Such a system pushes senatorial candidates to seek media exposure and develop an image strategy, although pork barrel is still an important tool for gaining support.

It should be noted that a majority in congress is formed according to the election of the speaker. Those who vote for the candidate who is eventually elected as the speaker are majority members, while those who vote for candidates who lose the race are minority members. Therefore, membership of the majority reflects a relationship with congressional leaders rather than with the president. I do not include the two independent variables in one model, because these are usually correlated, as the majority is composed of the president's party and other collaborative parties.

As for the demand-side explanation, the following variables are included in the regression:

leader is a variable of the legislator's status, which is calculated from the points allotted to each position (see Appendix 3). I count the following positions as statuses, namely: the speaker, the deputy speakers, the majority floor leader, the minority floor leader, other majority and minority leaders, other leading posts (the House Electoral Tribunal head), the committee chairs, and the committee vice chairs.

seniority shows how many times a legislator has held her congressional seat. Although the Philippine constitution prohibits four consecutive terms for house members, some legislators have been elected four times through having a break. I include all terms after the 1987 elections, which were the first congressional elections after democratization in 1986.

Each committee membership is expressed as a dichotomous variable, for example, *com_agri* is a dummy variable for membership of the committee on agriculture, food and fisheries, where *com_agri* = 1 for membership, otherwise 0. There are 52 committees in the 12th Congress. Special and ad hoc committees are excluded. (See Appendix 1 for committee variables.)

I also include *urban* as a variable indicating the degree of development. Those who are elected from districts in highly urbanized cities will receive 1, otherwise 0, for this variable⁸. GDP per capita may be a better index to measure the degree of development, but unfortunately, district level data is not available.

For political competition, I use the *competition* variable, which is calculated according to the following formula:

$$\textit{competition} = (\textit{the number of winner's votes} - \textit{the number of the second placer's votes}) / \textit{the sum of votes earned by all candidates}$$

Additionally, I include five control variables. *party_list* is a dummy variable for membership of

⁸ Highly urbanized cities are defined in the 1991 Local Government Code of the Philippines as "Cities with a minimum population of two hundred thousand inhabitants, as certified by the National Statistics Office, and with the latest annual income of at least Fifty Million Pesos based on 1991 constant prices, as certified by the city treasurer, shall be classified as highly urbanized cities." [Sec. 451 (a)]

party list parties. The 1987 Philippine Constitution allows twenty percent of all seats in the house to be held by party list members. Party list members may have different behaviors because they do not have a particular local constituency⁹. I also use the *late_comer* variable. Some members assume their congressional seats after a certain period has elapsed after elections. Naturally they are expected to receive fewer funds. If the member assumed the position one year after the elections, *late_comer* = 1, otherwise 0. Then, I use the *nci* (national concern index) variable. This is calculated from the authorship of bills¹⁰. Some house members sponsor more national bills than local bills¹¹. Authorship of bills may reflect the preferences of house members, for example, members who sponsor more local bills may have a higher tendency to woo pork barrel projects, since both are intended to satisfy the local constituency. If a legislator collaborates with the administration on national issues, she may receive more pork barrel as a reward. In this case, the coefficient would show the opposite effect. The *nci* is given by:

$$nci = \text{the number of authored national bills} / \text{the total number of authored bills}$$

I also include the *pa_total* variable, which is the total number of bills authored by a legislator as principal sponsor. This variable may indicate a legislator's degree of legislative activity, which may affect pork barrel distributions.

Data

The pork barrel data was obtained from the DBM website¹², which discloses the allocations of the PDAF and the allocations in the DPWH's budget to each legislator, after 2001. In order to obtain allocation figures for each legislator, I summed up the allocations of funds in the second half of 2001, the first, second and third tranches of 2002, and the entire 2003. I excluded 2004 figures, because congressional elections were held in May and some members left congress after June. I was not able to separate out allocations in the first and second halves of the year. The figures are based on the DBM's obligations. Therefore, the amounts are not necessarily actually released, but the DBM has undertaken to pay these funds¹³.

The data on house members were obtained from the committee affairs department, the archives,

⁹ Party list members of the house are elected nationally. A voter writes the name of a party on a ballot paper, and the candidate nominated by the party assumes a congressional seat if the party can secure enough votes.

¹⁰ I use only principal authorship.

¹¹ In the Philippine Congress, all bills are classified as either national or local. National bills deal with national issues, like nationwide regulations, while local bills deal with issues in particular localities, like naming roads or building a new national high school.

¹² http://www.dbm.gov.ph/dbm_releases/dbm_releases.htm. 2001 and 2002 data have been deleted as of October 2007.

¹³ I confirmed the nature of the data at the DBM directly. I also requested data on cash releases, but this request was refused.

and the website of the House of Representatives¹⁴, except for the results of the 2001 elections, which were gathered from the Commission on Elections¹⁵.

Results

The results of the OLS estimation are shown in the following table¹⁶.

¹⁴ <http://www.congress.gov.ph/>.

¹⁵ I thank Ms. Godie Ricalde and Mr. Angelo Danoy for their assistance in data gathering and coding.

¹⁶ In order to solve the problem of heteroskedasticity, I use heteroskedasticity-robust standard errors.

Table. The OLS Estimation of Pork Barrel Distributions to Members of the House of Representatives (the 12th Congress)

dependent variable = *pork*

| <i>variables</i> | Model 1 | | Model 2 | | Model 3 | | Model 4 | |
|------------------------|------------|------------------|------------|------------------|------------|------------------|------------|------------------|
| | Coef. | Robust Std. Err. | Coef. | Robust Std. Err. | Coef. | Robust Std. Err. | Coef. | Robust Std. Err. |
| <i>pres_party</i> | 1284405 | 1594306 | 1066150 | 1527333 | | | | |
| <i>majority leader</i> | -1019900 | 776999.4 | -1445447 | 814085.1 * | -3507147 | 2767876 | -2661077 | 2258644 |
| <i>seniority</i> | 1682138 | 788803.1 ** | 609889.4 | 575603.5 | 1364060 | 777723.7 * | 397618.8 | 567018.4 |
| <i>com_accounts</i> | -783403.5 | 1880827 | 1178880 | 1467253 | -510348.4 | 1862856 | 1220517 | 1480662 |
| <i>com_agref</i> | -671061.3 | 1886440 | -404919.8 | 1599244 | -1015394 | 1878053 | -528267.6 | 1574947 |
| <i>com_agri</i> | 5678626 | 2516845 ** | 5022213 | 2691460 * | 5546508 | 2507804 ** | 5071924 | 2665149 * |
| <i>com_appro</i> | -2684435 | 2644031 | -2223577 | 2125036 | -2623784 | 2671363 | -2085615 | 2139003 |
| <i>com_bank</i> | -2146233 | 2118650 | 186347.3 | 1687448 | -1710061 | 2100735 | 395350.3 | 1788507 |
| <i>com_basiced</i> | -2618283 | 2143414 | -1830236 | 1730398 | -2675238 | 2218161 | -2029238 | 1759419 |
| <i>com_conam</i> | 437206.6 | 3078612 | 927194.6 | 1929815 | 345061.4 | 3094738 | 648940.7 | 1928672 |
| <i>com_coop</i> | 267811.8 | 1770989 | -857318.6 | 1671003 | 423058.9 | 1759499 | -728401.4 | 1688179 |
| <i>com_cspr</i> | 2748250 | 2441075 | 3005684 | 2190424 | 2579930 | 2378705 | 2715935 | 2093830 |
| <i>com_drugs</i> | -2886362 | 2375549 | 55416.01 | 2072112 | -2380074 | 2396619 | 286779.9 | 2164775 |
| <i>com_ecology</i> | 552791.5 | 2834023 | -416720.3 | 2448056 | 1151735 | 2824390 | -124114.5 | 2477653 |
| <i>com_economic</i> | -499560.6 | 2412993 | -2553782 | 2399793 | -852783.9 | 2441012 | -2668863 | 2390042 |
| <i>com_election</i> | -1248018 | 2864697 | -1779834 | 2960767 | -952014.4 | 2875872 | -1513387 | 2937678 |
| <i>com_energy</i> | -1519237 | 1982370 | -1280691 | 2081557 | -1884522 | 2031450 | -1606452 | 2151364 |
| <i>com_ethics</i> | 171944.8 | 2459807 | 1027042 | 2196727 | 365452.9 | 2552808 | 1101762 | 2333817 |
| <i>com_foraff</i> | -4300274 | 3019736 | -4187538 | 2510550 * | -4657534 | 3172047 | -4653980 | 2649694 * |
| <i>com_game</i> | 1152249 | 1864584 | 1378096 | 1551286 | 1417345 | 1919213 | 1606566 | 1580678 |
| <i>com_goodgov</i> | 2651218 | 1934406 | 1378070 | 1539756 | 2610278 | 1907178 | 1278015 | 1528587 |
| <i>com_govreorg</i> | -2120605 | 3457938 | 544148.1 | 1874556 | -2054075 | 3418040 | 883838.6 | 1854485 |
| <i>com_health</i> | -759086.2 | 2427109 | -866607.6 | 2373324 | -815207.4 | 2430262 | -1070406 | 2416340 |
| <i>com_highed</i> | 4609114 | 1758982 ** | 2851528 | 1550081 * | 4673657 | 1796660 ** | 3013066 | 1580837 * |
| <i>com_housing</i> | 2370979 | 2191006 | 1517769 | 1870852 | 2181159 | 2214162 | 1549594 | 1887337 |
| <i>com_infor</i> | -30721.94 | 1988945 | -1836077 | 1632924 | 318480.7 | 1977234 | -1603538 | 1618872 |
| <i>com_intparl</i> | 1159778 | 2701474 | -558748.6 | 2565874 | 1184318 | 2757963 | -586983.1 | 2578082 |
| <i>com_justice</i> | -3190343 | 2759455 | -221694.1 | 2090010 | -3662045 | 2792403 | -247264.7 | 2093561 |
| <i>com_labor</i> | 4287865 | 2238792 * | 2554407 | 1716015 | 3999099 | 2131639 * | 2355347 | 1631993 |
| <i>com_law</i> | 1656004 | 3232390 | -174197.7 | 2603778 | 2206756 | 3288957 | -115842.2 | 2658122 |
| <i>com_lefr</i> | -2661132 | 1761260 | -2533144 | 1418908 * | -2919607 | 1783703 | -2908910 | 1566199 * |
| <i>com_localgov</i> | 601636 | 1705008 | 711998.9 | 1410255 | 705220.7 | 1624521 | 952919.3 | 1330509 |
| <i>com_minda</i> | -466228.3 | 2782902 | -2572588 | 2498097 | -302167.1 | 2693569 | -2018527 | 2198294 |
| <i>com_muslim</i> | 1700546 | 3595458 | 1769779 | 3036939 | 2022656 | 3483258 | 1745074 | 3026490 |
| <i>com_naculcom</i> | 399762.3 | 2296713 | -40552.47 | 1848775 | 51190.97 | 2126182 | -19685.92 | 1824644 |
| <i>com_natural</i> | -790343.4 | 1615050 | 3621.279 | 1533407 | -661995.8 | 1607272 | -72677.09 | 1528857 |
| <i>com_nd</i> | 2660854 | 2310879 | 2098610 | 2312857 | 2346516 | 2290774 | 1976114 | 2289506 |
| <i>com_oversight</i> | -17440.1 | 2958085 | 1498209 | 2354915 | -149248.1 | 2980618 | 1212904 | 2307732 |
| <i>com_people</i> | -6957550 | 5029234 | -3709577 | 4933616 | -17167226 | 5147950 | -4194625 | 5041350 |
| <i>com_popfam</i> | -933528.5 | 4986084 | -2614716 | 4998099 | -1322217 | 5192207 | -2723935 | 5135732 |
| <i>com_priv</i> | -2546679 | 2572947 | -2947907 | 2494200 | -2755127 | 2585797 | -3085164 | 2540293 |
| <i>com_pubsafe</i> | 960670.4 | 2187167 | -167982.5 | 1583338 | 928599.5 | 2165708 | 6634.62 | 1614730 |
| <i>com_pwh</i> | 547482.7 | 2281456 | 887525 | 1742155 | 509319.4 | 2266945 | 898207.4 | 1757893 |
| <i>com_rights</i> | 1812026 | 2918174 | 13268.7 | 1739268 | 1607945 | 2897784 | 105636.6 | 1792910 |
| <i>com_rules</i> | -1249833 | 2220335 | 925577.2 | 1517342 | -2103192 | 2327198 | 70804.59 | 1511432 |
| <i>com_rural</i> | 4102970 | 2504699 | 2047271 | 2005265 | 3823556 | 2433142 | 1931883 | 1987253 |
| <i>com_science</i> | 2741787 | 2698162 | 2796483 | 2622545 | 2657946 | 2684267 | 2713069 | 2611110 |
| <i>com_social</i> | -2287159 | 3704693 | -2966684 | 2291221 | -2536377 | 3662101 | -3107847 | 2267776 |
| <i>com_tour</i> | -3840641 | 2882699 | -1287982 | 2606348 | -3958964 | 2868412 | -1334209 | 2620396 |
| <i>com_trade</i> | 399683.9 | 2071681 | -881507.4 | 2321662 | 384985.4 | 2042301 | -813548.2 | 2323162 |
| <i>com_transp</i> | -973318.5 | 1616798 | -35795.11 | 1288997 | -1101277 | 1559810 | 52117.85 | 1263635 |
| <i>com_vetran</i> | 1442524 | 2419251 | 2067708 | 2160097 | 1194901 | 2238641 | 1726783 | 2020830 |
| <i>com_waysm</i> | 568431.3 | 1751460 | 42252.72 | 1101753 | 553339 | 1700622 | 182068 | 1098084 |
| <i>com_women</i> | 3283451 | 2711367 | 2000284 | 2308997 | 3247605 | 2736309 | 2093954 | 2329897 |
| <i>com_youth</i> | 5846958 | 3894848 | 3445439 | 2499918 | 6077853 | 4010168 | 3769654 | 2580238 |
| <i>urban</i> | | | 609318.7 | 1802351 | | | 611051.5 | 1842476 |
| <i>competition</i> | | | 5822646 | 3950577 | | | 5596954 | 3748058 |
| <i>party_list</i> | -8586483 | 1.10E+07 | | | -7656661 | 1.10E+07 | | |
| <i>late_comer</i> | -8.97E+07 | 1.18E+07 *** | -1.20E+08 | 2.81E+07 *** | -8.87E+07 | 1.22E+07 *** | -1.20E+08 | 2.78E+07 *** |
| <i>nci</i> | 975228.8 | 5323912 | -1772199 | 4747219 | -493016.3 | 5123227 | -1642203 | 4766207 |
| <i>pa_total</i> | -19987.83 | 31021.77 | -21177.52 | 25102.36 | -14747.36 | 29194 | -18020.02 | 23001.37 |
| <i>cons</i> | 1.53E+08 | 2711573 *** | 1.56E+08 | 2.06E+06 *** | 1.58E+08 | 3520337 *** | 1.58E+08 | 2828209 *** |
| Obs. | 230 | | 208 | | 228 | | 207 | |
| Prob > F | 0 | | 0.504 | | 0 | | 0.5763 | |
| Adjusted R-Squared | 0.82390011 | | 0.61114233 | | 0.81463496 | | 0.61096253 | |

* = P<0.1, ** = P<0.05, *** = P<0.01

Four models were tested. The first model includes *pres_party* as an independent variable. The *urban* and *competition* variables are excluded in order to include party list members, because no data on party list members exists for these two variables. The *party_list* variable is included instead. The result shows that *late_comer* has strong statistical significance. The *seniority*, *com_agri*, and *com_highed* variables are relatively significant. Other variables like *pres_party*, *leader* and *party_list* are not statistically significant.

Model 2 includes the *urban* and *competition* variables to see the effects of socio-economic and political conditions of districts, and drops the *party_list* variable. This model, therefore, does not include the observations of party list members. In the result, the socio-economic and political variables are not statistically significant. Furthermore, the result shows weaker significance for the variables of *leader*, *com_agri*, and *com_highed*, some of which are relatively significant in model 1. However, model 2 does not fit as well as model 1 because the adjusted R-squared is lower (0.61114233). The value of the F test is even higher (0.504). Hence, model 2 is not a good estimation.

Model 3 follows model 1, except that *majority* is used instead of *pres_party*. The result shows that even the *majority* variable is not statistically significant. Moreover, the coefficient of the variable is negative. The *com_agri* and *com_highed* variables are relatively statistically significant as in model 1, but *seniority* decreases in significance.

Model 4 drops observations of the party list members and includes the *urban* and *competition* variables. Like model 2, model 4 does not render a good estimation. Models 1 and 2 provide better estimations.

Correlations of the major independent variables are listed in Appendix 4. The *party_list* and *late_comer* variables show a relatively high correlation (0.7757). However, even if I drop *party_list* from the regression, the result shows no remarkable change. If I drop, instead, the *late_comer* variable, the adjusted R-squared decreases drastically, so it is not a proper estimation.

Implications

As the results show, H1 is not supported by the findings. Either the *pres_party* or *majority* variable is not statistically significant. Moreover, the coefficient of *majority* is negative. This means that pork barrel is not necessarily favorably provided to the president's or the speaker supporters in terms of amounts. However, it is too early to say that the supporters of leaders are not being given any favors. In the author's interview, a director at the House secretariat said that timing the release of funds was also important for house members and those who were cooperative with the administration received a cash release at the crucial time. Unfortunately, data on cash release timing was not provided by the DBM, but the result might differ if such data were to be integrated in the model.

If we discuss the legislators' cooperation with the administration, the relation between the voting behavior of house members and pork barrel distributions should be taken directly into consideration. We can presuppose that the members who vote in favor of the administration's bills receive more pork barrel, if the supply-side explanation is true. In order to prove this, the data on roll call votes seems significant as a measurement of the behavior of house members¹⁷. Unfortunately, it is difficult to use this data, due to two problems. Firstly, the data has not been processed in an organized way, so a researcher needs to check the congressional journals from page to page to locate roll call voting results. Secondly, most of the roll call votes that I found in the journals show no sign of major discrepancies. The bills and resolutions were approved by overwhelming *yea* votes and there are very few *nay* votes. It is possible to conclude that the house members who were not in favor of a certain bill simply did not participate in the voting. Newspaper articles suggest that a quorum tends to be the issue when there is conflict among the house members. However, simply counting *absent* as *nay* votes may cause another problem. We need to treat the data carefully, but analyzing roll call votes is surely another important research topic.

As attributes of the house members, seniority, membership of the committee on agriculture, food and fisheries and the committee on higher and technical education, show a relatively high statistical significance. H2 is not supported, but H3 seems to be supported by the result. Because the status of house members is controlled, as *leader* is put in the regression, *seniority's* significance may be interpreted as skills at managing pork barrel projects. As a legislator accumulates experience, she may identify prospective projects relatively easily and make proposals more eloquently. This may include cultivating personal relationships with the implementing administrative agencies. Intuitionally, the significance of membership of the committee on agriculture, food and fisheries is not hard to understand because the members are expected to be concerned with rural development, which need pork barrel-type projects. This may be interpreted as H5 being supported by the findings. However, it is not clear why membership of the committee on higher and technical education is relatively significant. This result leaves room for further research. It may also be an unexpected result that membership of some influential committees does not show statistical significance, like the committee on rules, the committee on appropriations and the committee on public works and highways. Hence, H4 is not supported by the findings. There is a possibility that members of these committees directly exercise influence on the main body of the budget. If so, they may not need to increase pork barrel items, since their constituencies are provided with funds from regular budget items.

The socio-economic and political conditions in districts do not show statistical significance in estimating pork barrel distributions. Neither H6 nor H7 are upheld. Pork barrel distributions are not decided by the needs of localities, although some weight might be given to underdeveloped areas in other types of expenditure.

¹⁷ Using roll call vote data is a standard method of measuring voting behavior. See Pool and Rosenthal 1995 for the American congress and Morgenstern 2004 for Latin American countries.

Conclusion

The findings of the examination do not support the supply-side explanation, but do support the demand-side explanation partially. This is the conclusion that this paper reaches. If the data on more details was available, like the timing of cash releases, we might reach a different conclusion. Nevertheless, the results suggest the possibility of a new explanation of congressional politics. Although actual cash releases may reflect the affiliation, the amounts of pork barrel allotments are, at least, not directly decided by either party affiliation or congressional bloc affiliation. In this result, particularly, the formation of a large majority bloc in the house emerges as an interesting puzzle¹⁸. Conventionally, the president is seen as a crucial player in the selection of the house speaker, although she has no official authority in the election. This is based on the theory that house members will support a close ally of the president, in the expectation of more benefits being provided by the executive. However, if pork barrel allocations do not reflect support for the speaker, why do they need to support a certain person as speaker with a large majority? There must be different logic within congress itself, apart from relationships with the president. Although this is beyond the topic of the paper, the principal agent model seems to provide a plausible theory. Being a majority member provides privileges, like appointments to committee chairs. Moreover, the speaker may play a role of agent of legislators to solve the problems of collective action and social choice. If so, it may give incentives to legislators to join a large majority. This is a prospective research topic.

¹⁸ The percentages of majority members among all house members are 79.46 percent for the 11th congress, 91.77 percent for the 12th congress and 80.93 percent (unofficial count) for the 13th congress. The majority bloc is consistently large.

Appendix 1

Variables

| | |
|---------------------|---|
| <i>pork</i> | <i>pork barrel allocation (in Philippine peso)</i> |
| <i>pres_party</i> | <i>membership of the president's party</i> |
| <i>majority</i> | <i>membership of the majority</i> |
| <i>leader</i> | <i>status in congress</i> |
| <i>seniority</i> | <i>number of elected terms</i> |
| <i>com_appro</i> | <i>membership of the committee on appropriations (a member = 1, otherwise 0)</i> |
| <i>com_accounts</i> | <i>membership of the committee on accounts (a member = 1, otherwise 0)</i> |
| <i>com_agref</i> | <i>membership of the committee on agrarian reform (a member = 1, otherwise 0)</i> |
| <i>com_agri</i> | <i>membership of the committee on agriculture, food and fisheries (a member = 1, otherwise 0)</i> |
| <i>com_bank</i> | <i>membership of the committee on bank and financial intermediaries (a member = 1, otherwise 0)</i> |
| <i>com_basiced</i> | <i>membership of the committee on basic education and culture (a member = 1, otherwise 0)</i> |
| <i>com_conam</i> | <i>membership of the committee on constitutional amendments (a member = 1, otherwise 0)</i> |
| <i>com_coop</i> | <i>membership of the committee on cooperatives development (a member = 1, otherwise 0)</i> |
| <i>com_cspr</i> | <i>membership of the committee on civil service and professional regulation (a member = 1, otherwise 0)</i> |
| <i>com_drugs</i> | <i>membership of the committee on dangerous drugs (a member = 1, otherwise 0)</i> |
| <i>com_ecology</i> | <i>membership of the committee on ecology (a member = 1, otherwise 0)</i> |
| <i>com_economic</i> | <i>membership of the committee on economic affairs (a member = 1, otherwise 0)</i> |
| <i>com_election</i> | <i>membership of the committee on suffrage and electoral reforms (a member = 1, otherwise 0)</i> |
| <i>com_energy</i> | <i>membership of the committee on energy (a member = 1, otherwise 0)</i> |
| <i>com_ethics</i> | <i>membership of the committee on ethics (a member = 1, otherwise 0)</i> |
| <i>com_foraff</i> | <i>membership of the committee on foreign affairs (a member = 1, otherwise 0)</i> |
| <i>com_game</i> | <i>membership of the committee on games and amusements (a member = 1, otherwise 0)</i> |
| <i>com_goodgov</i> | <i>membership of the committee on good government (a member = 1, otherwise 0)</i> |

| | |
|----------------------|---|
| | <i>otherwise 0)</i> |
| <i>com_govreorg</i> | <i>membership of the committee on government reorganization (a member = 1, otherwise 0)</i> |
| <i>com_health</i> | <i>membership of the committee on health (a member = 1, otherwise 0)</i> |
| <i>com_highed</i> | <i>membership of the committee on higher and technical education (a member = 1, otherwise 0)</i> |
| <i>com_housing</i> | <i>membership of the committee on housing and urban development (a member = 1, otherwise 0)</i> |
| <i>com_infor</i> | <i>membership of the committee on public information (a member = 1, otherwise 0)</i> |
| <i>com_intparl</i> | <i>membership of the committee on inter-parliamentary relations and diplomacy (a member = 1, otherwise 0)</i> |
| <i>com_justice</i> | <i>membership of the committee on justice (a member = 1, otherwise 0)</i> |
| <i>com_labor</i> | <i>membership of the committee on labor and employment (a member = 1, otherwise 0)</i> |
| <i>com_law</i> | <i>membership of the committee on revision of laws (a member = 1, otherwise 0)</i> |
| <i>com_lefr</i> | <i>membership of the committee on legislative franchises (a member = 1, otherwise 0)</i> |
| <i>com_localgov</i> | <i>membership of the committee on local government (a member = 1, otherwise 0)</i> |
| <i>com_minda</i> | <i>membership of the committee on Mindanao affairs (a member = 1, otherwise 0)</i> |
| <i>com_muslim</i> | <i>membership of the committee on Muslim affairs (a member = 1, otherwise 0)</i> |
| <i>com_naculcom</i> | <i>membership of the committee on national cultural communities (a member = 1, otherwise 0)</i> |
| <i>com_natural</i> | <i>membership of the committee on natural resources (a member = 1, otherwise 0)</i> |
| <i>com_nd</i> | <i>membership of the committee on national defense (a member = 1, otherwise 0)</i> |
| <i>com_oversight</i> | <i>membership of the committee on oversight (a member = 1, otherwise 0)</i> |
| <i>com_people</i> | <i>membership of the committee on people's participation (a member = 1, otherwise 0)</i> |
| <i>com_popfam</i> | <i>membership of the committee on population and family relations (a member = 1, otherwise 0)</i> |
| <i>com_priv</i> | <i>membership of the committee on government enterprises and privatization (a member = 1, otherwise 0)</i> |
| <i>com_pubsafe</i> | <i>membership of the committee on public order and security (a member = 1, otherwise 0)</i> |

| | |
|--------------------|---|
| <i>com_pwh</i> | <i>membership of the committee on public works and highways (a member = 1, otherwise 0)</i> |
| <i>com_rights</i> | <i>membership of the committee on civil, political and human rights (a member = 1, otherwise 0)</i> |
| <i>com_rules</i> | <i>membership of the committee on rules (a member = 1, otherwise 0)</i> |
| <i>com_rural</i> | <i>membership of the committee on rural development (a member = 1, otherwise 0)</i> |
| <i>com_science</i> | <i>membership of the committee on science and technology (a member = 1, otherwise 0)</i> |
| <i>com_social</i> | <i>membership of the committee on social services (a member = 1, otherwise 0)</i> |
| <i>com_tour</i> | <i>membership of the committee on tourism (a member = 1, otherwise 0)</i> |
| <i>com_trade</i> | <i>membership of the committee on trade and industry (a member = 1, otherwise 0)</i> |
| <i>com_transp</i> | <i>membership of the committee on transportation and communications (a member = 1, otherwise 0)</i> |
| <i>com_vetran</i> | <i>membership of the committee on veterans affairs (a member = 1, otherwise 0)</i> |
| <i>com_waysm</i> | <i>membership of the committee on ways and means (a member = 1, otherwise 0)</i> |
| <i>com_women</i> | <i>membership of the committee on women (a member = 1, otherwise 0)</i> |
| <i>com_youth</i> | <i>membership of the committee on youth and sports development (a member = 1, otherwise 0)</i> |
| <i>urban</i> | <i>a member elected from a highly urbanized city takes 1, otherwise 0</i> |
| <i>competition</i> | <i>the degree of competition at the district in 2001 elections</i> |
| <i>party_list</i> | <i>a member elected under the party list system takes 1, otherwise 0</i> |
| <i>late_comer</i> | <i>a member who assumed the office more than one year after the elections takes 1, otherwise 0</i> |
| <i>nci</i> | <i>national concern index = the ratio of authored national bills to all authored bills</i> |
| <i>pa_total</i> | <i>the number of authored bills as principal sponsor</i> |

Appendix 2 Descriptive Statistics of Variables

a.

| Variables | Obs | Mean | Std. Dev. | Min | Max |
|--------------------|--------|----------|-----------|--------|----------|
| <i>Pork</i> | 233 | 1.49E+08 | 2.81E+07 | 0 | 1.71E+08 |
| <i>Leaders</i> | 233 | 1.742489 | 1.600848 | 0 | 9 |
| <i>Seniority</i> | 233 | 1.841202 | 0.931083 | 1 | 4 |
| <i>sum_com</i> * | 233 | 12.30043 | 6.534052 | 0 | 52** |
| <i>Competition</i> | 211*** | 0.294198 | 0.272869 | 0.0014 | 1 |
| <i>nci_pa</i> | 230 | 0.422217 | 0.275016 | 0 | 1 |
| <i>pa_total</i> | 233 | 35.28755 | 34.55653 | 0 | 193 |

* The *sum_com* indicates the number of committees to which a legislator belongs.

** Technically, the speaker belongs to all committees.

*** The party list members do not have data on the competition in local districts.

b.

| Variables | Freq. | Percent |
|-------------------|-------|---------|
| <i>pres_party</i> | | |
| 0 | 148 | 63.52 |
| 1 | 85 | 36.48 |
| Total | 233 | 100 |
| <i>majority</i> | | |
| 0 | 19 | 8.23 |
| 1 | 212 | 91.77 |
| Total | 231 | 100 |
| <i>urban</i> | | |
| 0 | 169 | 80.09 |
| 1 | 42 | 19.91 |
| Total | 211* | 100 |
| <i>party_list</i> | | |
| 0 | 211 | 90.56 |
| 1 | 22 | 9.44 |
| Total | 233 | 100 |
| <i>late_comer</i> | | |
| 0 | 214 | 91.85 |
| 1 | 19 | 8.15 |
| Total | 233 | 100 |

* The party list members do not have socio-economic data on their districts.

Appendix 3 Computation of the *leaders*

| Status | Points |
|--|--------|
| The Speaker | 6 |
| Deputy Speaker | 5 |
| Majority Floor Leader | 4 |
| Minority Floor Leader | 3 |
| Majority and Minority Leader (Deputy, Asst.) | 2 |
| Other Leading Post (HET Head, etc.) | 2 |
| Committee Chair | 2 |
| Committee Vice-Chair | 1 |
| Non-Leader | 0 |

*If a member holds more than one position, the points are totaled.

Appendix 4 Correlations of the Independent Variables

(obs=228)

| | pres_party | majority | leader | seniority | nci | pa_total | late_comer | party_list | com_agri | com_highed |
|-------------------|-------------------|-----------------|---------------|------------------|------------|-----------------|-------------------|-------------------|-----------------|-------------------|
| pres_party | 1.0000 | | | | | | | | | |
| majority | 0.1921 | 1.0000 | | | | | | | | |
| leader | 0.1895 | 0.2738 | 1.0000 | | | | | | | |
| seniority | 0.0066 | -0.0990 | 0.2652 | 1.0000 | | | | | | |
| nci | -0.0842 | -0.0481 | 0.0437 | 0.0953 | 1.0000 | | | | | |
| pa_total | 0.1271 | -0.0436 | 0.1260 | 0.0997 | 0.0896 | 1.0000 | | | | |
| late_comer | -0.2188 | -0.0407 | -0.3148 | -0.2049 | 0.2696 | -0.2389 | 1.0000 | | | |
| party_list | -0.2456 | -0.0192 | -0.3152 | -0.2090 | 0.3371 | -0.1379 | 0.7757 | 1.0000 | | |
| com_agri | 0.0145 | -0.0191 | 0.0339 | -0.0506 | -0.1997 | 0.1399 | -0.0961 | -0.1277 | 1.0000 | |
| com_highed | 0.0454 | 0.0368 | 0.0591 | -0.0344 | 0.0814 | 0.1325 | 0.0099 | -0.0400 | 0.1071 | 1.0000 |

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