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# Particularistic Distribution of Investment Subsidies under Coalition Governments

## The Case of Turkey

*Ozge Kemahlioglu*

Subsidies provided to private investors by governments have played an important role in shaping industrial development in Turkey.[1] However, the manner through which they are distributed to businesses has been a concern for both scholars and the public in general.[2] The main worry has been that the political ambitions of individual politicians and their personal (and perhaps clientelistic) networks usually take precedence over priorities for economic development in the allocation of these subsidies. Yet a systematic analysis of how electoral competition through channels of political institutions such as coalition governments affects the particularistic distribution of these subsidies has not been conducted. A statistical analysis of investment subsidies that were received by provinces in Turkey between 1992 and 1997 and examination of how parties in coalition governments allocated these subsidies across their stronghold provinces can fill this gap. Responsibility-claiming mechanisms under coalition governments affect particularistic distribution of material goods like subsidies. When a single party in a coalition government has almost complete control over the allocation of a good, it limits the access of its coalition partners' constituencies to this benefit in order to prevent its coalition partners from claiming the responsibility for providing this good.

Studies of economic development and industrial policy have emphasized how governments can use distribution of subsidies as a policy tool to change the investment decisions of private and public industrial actors and characteristics of the industrial sector. Subsidies can help regional development within a country, aid the growth of certain sectors, and/or be distributed along factor lines.[3] Since politicians' survival and success depend on their popularity and relations with their constituencies, it is expected that politicians' choices on how to allocate subsidies are shaped by the preferences of their constituencies.[4] However, at the same time, as studies of the developmental state have emphasized, it is critical to prevent the degeneration of the use of selective subsidies into rent-seeking mechanisms.[5] In order for the subsidies to be effective, the state needs to have the capacity to impose performance criteria on the private actors in the economy to ensure that these subsidies are used for improving industrial production.[6] However, if particularistic (clientelistic/patronage) networks constitute the predominant mode of linkage between politicians and their constituencies, it is harder for the state to have this desired monitoring capacity.



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Some important works introduced explanations of how historical factors (the colonial period), government efforts, and the role of some private actors such as industrialists have led to the emergence of some states that are fairly independent from capture by private interests and capable of pursuing development goals.[7] However, an analysis of how contemporary electoral politics contributes to or hinders rent-seeking mechanisms within the state by giving incentive to politicians to engage in particularistic linkages with their constituencies has not been conducted with a specific focus on investment subsidies. One purpose of this article is, therefore, to explain how electoral incentives under coalition governments affect the way politicians employ particularistic networks to allocate subsidies by analyzing Turkey between 1992 and 1997.

In addition to improving explanations of the distribution of investment subsidies, this analysis can contribute to the studies of patronage/clientelistic exchanges in general, where politics under coalition governments is missing from explanations (with the exception of one article).[8] Even though general policymaking under coalition governments and/or the effects of politics in coalition governments on some types of economic policy such as government expenditures have been widely analyzed, previous studies do not provide any explanations of how politics under coalition governments shape particularistic and personalistic allocation of material goods by governments.[9]

The mechanisms of claiming credit for goods that are delivered to constituencies are different and more complex under coalition governments than under single party governments. In countries such as Turkey that approximate the "ministerial-government" type of coalition government, that is, a coalition in which each party has almost full control over making and implementing policy within their own portfolio of ministries, as opposed to cross-cutting policymaking through mechanisms of "interparty delegation," allocation of subsidies is almost completely carried out by the party that is in control of the administrative agency that is responsible for these investment subsidies.[10] In these cases, similar to policymaking, particularistic distribution of goods (such as subsidies) follows party lines. Although each party in the cabinet has some pork to deliver to its own constituency through its own portfolio of ministries, each party's share of pork is compartmentalized along ministerial lines.

However, in countries like Turkey, where individual politicians and business people form close personal and informal ties, the ability of the coalition party in control of allocating investment subsidies to claim credit for such subsidies can be blurred at the decentralized level.[11] Since the channel that links constituencies in provinces to the central government goes through legislators that represent these provinces, legislators from coalition partners can easily take the credit for the distribution of these subsidies. Through their face-to-face contact with business people they can easily claim that their efforts in the capital city and influence in the central government have delivered the subsidies. Under such circumstances, the coalition party that is responsible for the allocation of subsidies is expected to distribute a disproportionately smaller number of subsidies to the electoral districts in which its coalition partners are strong in order to prevent legis-



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lators of the latter parties from claiming credit for providing subsidies. The statistical analysis of subsidies across provinces in Turkey supports this expectation with the finding that the number of subsidies received by a province in a year decreases as the vote shares of the coalition partners increase.

## Investment Subsidies in Turkey

The Turkish state has played various roles in the economy during different periods. It has moved back and forth from an emphasis on its direct entrepreneurial function to a stronger weight on indirect intervention. What remained constant is the place that investment subsidies have had as part of the state's industrial policy. Over time the type of benefits included in subsidies has narrowed, especially after the liberalization reforms of the 1980s, and currently the only remaining available forms of subsidies are tax exemptions and, in limited cases, credits and land.[12] Not only have the forms of the subsidies changed over time, but also the specific goals behind them have been reformulated according to the broader macroeconomic policies of the state. For example, in some periods, regional development was the goal, while between 1983 and 1988 subsidies were mainly used to boost the export economy.[13]

Throughout this period, the implementation stage has been problematic. Most of the works that deal with subsidies in Turkey have emphasized the prevalence of rent-seeking and the capture of rents by private interests.[14] They argue that rent-seeking has taken place either in the form of exchanging bribes for certificates between politicians (or bureaucrats) and business people or between politicians and their followers (and/or constituents) in return for the followers' political support. While the expectation was that with the liberalization and reduction of the state's role in the economy rent-seeking would diminish, it is widely recognized that it has at least continued in the allocation of subsidies. As a bureaucrat from the General Directorate of Incentive and Implementation in the Department of Treasury stated, bureaucrats in the subdepartment responsible for the allocation of export subsidies have been accused of receiving bribes.[15]

A related problem that the state has faced in the implementation of its industrial policy is that it could not enforce its performance criteria due to its lack of an effective monitoring capacity.[16] For example, an issue that dominated public opinion during the late 1980s was that some individuals received state credits, which were supposed to aid export production, even though these individuals were not involved in the production of export goods. It was such a widely recognized phenomenon that people in daily conversations referred to them as "fictitious exports."[17] Even though a rigorous empirical analysis that deals with this issue is lacking, it is highly possible that the lack of monitoring capacity or the lack of incentives for monitoring due to bribe taking or other forms of rent-seeking contributed to the existence of these "fictitious exports."

The pursuit of private gain or parties' interests through the allocation of investment



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subsidies to particular individuals or organizations is certainly a problem within the broader context of the Turkish economy where the relationship between state officials and business people takes on informal relationships that lack transparency.[18] In Turkey success in the business sector depends on the personal relationship of business people with the state.[19] In a country in which 35 percent of private sector investments receive subsidies from the state, it is crucial to understand the political factors that shape how politicians, through such informal and personal means, influence the allocation of subsidies by making sure that particular individuals, organizations, and/or geographical locations receive them.[20] The following empirical analysis tries to explain how electoral incentives under coalition governments shape such allocations.

## Particularistic Distribution of Subsidies and Coalition Governments

It has long been pointed out that when "goods" are distributed by political means, the benefits can be concentrated on a few and costs can be dispersed to the collectivity.[21] These benefits can take the form of pork barrel politics when goods are distributed to some particular geographical localities or the form of clientelistic politics when particular citizens are the recipients of "goods." Political choices in concentrating the benefits on a few selected recipients can be included in the formal procedures defining the distribution of "goods." For example, in the case of investment subsidies various Turkish governments chose regional development as an important goal of industrial policy and decided that some "selected" provinces that have low GDP per capita should have priority in receiving investment subsidies.[22] Or the distributions to particular regions and/or individuals can be carried out through informal means. Of interest here is how these informal and particularistic exchanges of investment subsidies between politicians and their selected constituencies take place. Therefore, the analysis focuses on the implementation stage when some of the applicants are excluded from the benefit while certain other particular individuals/regions receive the subsidies. More generally, the analysis deals with one way of not adhering to the rule of law during the implementation stage of a specific public policy.

Various works have argued that the particularistic distribution of a material benefit from the state, whether the receiver is a particular individual, organization, or geographical location, is shaped by incentives created by electoral competition. Providing goods, such as investment subsidies, to selected voters can be considered as one type of constituency service, defined as "various activities carried out by representatives on behalf of individuals, groups and organizations in the district."[23] If the representatives have access to public resources, then the allocation of these resources to the voters in the district enhances their visibility and, in turn, their vote. The level and manner through which these goods are provided, though, are shaped by political institutions such as electoral laws.[24]



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An important political institution that has long been neglected in studies of particularistic distribution of state goods, however, is the type of government involved. Whether the government is controlled by a single party or a coalition of parties where both responsibility and credit are shared has an important effect on how these goods are allocated among voters. While under single party governments the party as a whole is responsible and can claim credit for the actions of the government, in coalition governments parties have to find means through which they share responsibility. One basic mechanism through which they determine which coalition partner will control policymaking and implementation in each area is portfolio allocation.[25] Coalition governments vary with respect to the level that parties have control over policymaking and implementation in areas that correspond to their ministerial assignments.[26] Some coalition governments might try to share responsibility over the same policy areas and limit the control of a single party over each policy area through various mechanisms, such as writing contracts (the most typical being coalition agreements), submitting decisions and actions in important areas to approval by all coalition partners, assigning two or more agents (ministries) control over the same policy area, appointing junior ministers from coalition partners, and increasing the role of committees that are composed of members from each coalition partner.[27]

In cases where such "interparty delegation" mechanisms are weak, like Turkey, where cross-party appointment of junior ministers does not exist and committees do not play an effective role in policymaking and implementation, distribution of certain state "goods" would be expected to be controlled by the party holding the ministerial position.[28] As opposed to legislative appropriations, decisions concerning some goods, like investment subsidies in Turkey, which are distributed by a single agency in the central government, would be made by this coalition partner alone.[29] Therefore, the electoral calculations of this party's members would be expected to have an impact on how subsidies are distributed. This distribution, in turn, would be affected by credit-claiming opportunities of the party and its members (especially the legislators) within the context of coalition governments.

Since politicians' interests in distributing subsidies (or other "goods") are largely motivated by electoral goals, they would like to be recognized as the providers of these benefits. That is, they would like to be able to claim credit for these activities.[30] However, factors such as the type of material benefit that is distributed, the institutions of electoral competition, and the characteristics of the administrative units involved all affect whether a politician/party can present its efforts and talent as the source of such benefits.[31] In the case of subsidies, as opposed to pork barrel projects that are targeted to geographical locations, legislators representing the district can claim credit directly through their personal relationships with the business people. The relatively small number of subsidies that are distributed to each electoral district but their high monetary value (compared to, for example, jobs in public administration) also help the legislators form these direct and personal connections with business people even without the help of interme-



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diaries. Even in large cities like Istanbul, which is composed of three electoral districts and was represented in total by sixty-one legislators (fifty before the 1995 elections), the number of investment subsidies per year ranged from a low of 405 to 1,071 between 1992 and 1997. The average number of subsidies received by a province per year in the whole dataset is forty-six. Therefore, legislators can easily keep track of applicants and maintain contact with them about the progress of their applications. These personal relationships contrast with pork barrel projects where, especially in large electoral districts, legislators have to share the credit collectively due to lack of clear responsibility and the difficulty of maintaining personal and direct relations with the large number of recipients.

Even if their efforts have no direct impact on whether businesses get subsidies, legislators (especially those from the parties in government) can claim credit for successful results. As opposed to policy outcomes where the electorate can more easily identify the party that is responsible or pork barrel projects where credit claiming is blurred due to lack of direct relationships with the electorate, distribution of subsidies allows all the legislators from the parties in government, and not only those from the party that is responsible for the allocation of subsidies, to claim credit, especially in electoral districts where coalition partners are strong. First, in these districts the proportion of legislators from coalition partners is high, and as a result there are simply more opportunities for contact between them and business people. Second, parties are expected to be better organized, and politicians are expected to have developed close networks with their constituencies, in districts where they are already strong electorally and the party organization and networks with constituencies can help legislators claim credit more effectively. Therefore, it is hypothesized that the party in control of distributing investment subsidies constrains the number of subsidies allocated to the strongly held districts of its coalition partners in order to prevent them from capturing credit.

Turkey in the 1990s provides a good opportunity to test this expectation empirically. Even though a ten percent national threshold was introduced in the 1983 electoral law with the intention of reducing party fragmentation, only the first two elections after the democratic transition could produce a single party majority in parliament.[32] From the 1991 elections until 2002 at least five parties gained seats in the parliament. With the high incidence of breakaways from existing parties and creation of new parties and groups in the parliament, the number of parties increased even further. From the 1991 elections until 2002 government was characterized by a high number of short-lived coalitions oriented towards gaining access to government spoils.[33] Politicians whose main concern was to serve their constituencies through pork and patronage benefits were "office seekers" rather than "policy seekers."[34] As Indridason anticipates to be the case in contexts where clientelistic politics are prevalent, coalitions were not ideologically connected or policy oriented.[35] As Heper and Keyman argue, "in the formation of coalition governments...agreements among the political parties in Turkey were almost always based on short-term and tactical matters; the parties were preoccupied with trying to *prevent* other political parties from making electoral gains through exercising patronage powers...." [36]



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An example can illustrate how this mechanism worked at the provincial level. The number of investment subsidies for the province of Antalya fluctuated according to the partisan composition of the national coalition government and the coalition partners' electoral support in the province. Even though GDP and population levels did not change much between elections, the number of subsidies changed substantially. Under the coalition governments of the True Path Party (DYP) and the Social Democratic People's Party (SHP) formed after the 1991 legislative elections, the number of subsidies ranged between twenty-one and ninety-five with an average of fifty-five.[37] This number increased first to 140 in 1996 and then to 188 in 1997.

The change can be explained by the composition of new governments after the 1995 elections and their support in Antalya. In the DYP-SHP coalition the DYP controlled the National Planning Organization that was responsible for the allocation of subsidies, and the coalition partner SHP had a vote share of 23 percent in Antalya. After the 1995 elections a coalition formed by the DYP and the ANAP (Motherland Party) survived less than four months and was replaced by a new coalition formed by the DYP and the RP (Welfare Party). Even though the RP's national vote share was higher than the DYP's and the prime minister was from the RP, the DYP controlled the Department of Treasury that was now in control of distributing investment subsidies. The RP's vote share in Antalya was 13.3 percent, much lower than the SHP's vote share in 1991 elections. This change in the new partisan composition of the national government and the coalition partner's support in Antalya was accompanied by an increase in the number of subsidies allocated to Antalya in 1996. The vote share of the coalition partner DSP (Democratic Left Party) in the subsequent government formed in 1997 was even lower, 6.8 percent, and the ANAP, the party that controlled the Department of Treasury, was comfortable giving 188 subsidies to Antalya in this year.

The example of Antalya illustrates how credit claiming under coalition governments and the partisan composition of coalitions affect allocation of subsidies in provinces. Data from all provinces across years can test whether the same mechanism was in place in the rest of the country. Between 1991 and 2002 only two elections were held, in 1995 and 1999, but there were nine different coalition governments. This number makes it possible to test statistically across provinces and years whether changes in the party compositions of coalition governments affected the distribution of investment subsidies in the hypothesized manner, that is, whether stronghold districts of coalition partners that are not in control of distributing subsidies received fewer subsidies relative to all other districts. The analysis will be limited to the period between 1992 and 1997 due to data limitations on subsidies.

## Data and Model Estimation

Cross-sectional time series data from Turkish provinces are used to conduct the empirical analysis. The period between 1992 and 1997 is covered. The dataset is an unbalanced



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panel due to an increase in the number of districts with time. While in 1992 there were seventy-four districts, the number increased to eighty by 1997. (See Appendix 1 for information on the sources of data.) The dependent variable of the analysis is the number of certificates for investment subsidies that a district received per year. Some districts did not get any certificates in some years, so the minimum value that the dependent variable can get is 0. This number is observed in 20 cases out of 501. The maximum value for the dependent variable is 1,071, and the mean across districts and years is 45.96. Given the nature of the dependent variable, the statistical model uses the negative binomial distribution. The model is estimated by the maximum likelihood method.

## Explanatory Variables

The main hypothesis to test is whether under coalition governments the party that is in control of distributing subsidies allocates a relatively smaller number of these subsidies to the districts where its coalition partner is strong. The theoretical argument follows two steps. Under coalition governments where cross-party policymaking and implementation are limited, as in Turkey, distribution of some goods like subsidies is controlled by a single party. If the nature of the good, like subsidies, allows legislators from all coalition parties to claim credit for the provision of such benefits due to the good's small number and high value, the party in control of the allocation will restrict the amount of subsidies to the electoral districts in which a coalition partner is strong. The measurement used in the statistical analysis to operationalize this variable is the vote share of the coalition partner in that district in the preceding election.[38] Therefore, fewer certificates for subsidies will be expected as the vote share of the coalition partner increases.

The party that controls the allocation of subsidies can also be expected to distribute them to its own stronghold districts to reward its own supporters. Therefore, a variable that measures the vote share (in the preceding election) of the party that controls the agency responsible for the allocation of subsidies is included. However, there has been a lengthy debate about whether parties reward their own loyal supporters with the distribution of goods or target swing voters (marginal districts) in the hope of changing electoral results.[39] Therefore, a variable that captures the competitiveness of elections in a district is also used. Results from the elections closest in time to the year of analysis are used. The difference between the vote share of the party that controls the allocation of certificates and the vote share of the closest competitor in the district is calculated. Then, the absolute value of the difference is included in the analysis.

Certain control variables must also be added to the analysis to capture other political and economic effects on the allocation of certificates. First, there are economic and demographic variables that might have an effect on the demand for investment subsidies. Two of these variables are GDP and population. If the GDP in a district is high, industrial production and therefore demand for further investment might be high. The logged



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GDP value is included in the analysis because the size of the effect might decrease as the level of GDP reaches high levels. Population might also have a positive effect on demand and, in turn, on the supply of investment subsidies in a district. Since the main theoretical concern is to capture the factors that have an effect on the political choice behind which provinces get relatively more subsidies, it is crucial to control for the demand from private business for these subsidies. In order to measure this demand more precisely, the amount of credits provided by banks in a district per year is included. This variable is a good proxy to control for the other residual economic and social factors that might increase the demand for investment subsidies.

Some further variables must be taken into account because of the way the distribution of investment subsidies is organized in Turkey. First, there are some districts that are depicted as "regions that have priority in development." The requirements to receive certificates in these districts are easier to meet. For example, the minimum amount of resources that the investor needs to contribute is rather low. Therefore, these districts might receive more subsidies. A dummy variable that takes on the value of one if the regulation depicts the district as part of the "regions that have priority in development" measures this variable. A second variable involves the type of subsidies. Starting with 1994, monetary credits were no longer provided. This change might also have a positive effect on the number of licenses since it is easier for the government to exempt investors from taxes than to supply them with credits. It is also measured by a dummy variable that takes on the value of one starting with 1994. A third variable is the change in the agency responsible for the allocation of licenses. Prior to 1995 the National Planning Organization controlled the distribution of investment subsidies. Control was then transferred to the treasury. The effect of this change is controlled by a dummy variable that takes on the value of one starting with 1995.[40]

Previous studies related to this project, moreover, suggest other political variables that must be controlled for. First, politicians (parties) might have more incentives in general to appeal to their constituents and voters when elections are nearer.[41] This variable is measured in three ways, and three separate regressions are run with each measurement. In one, a dummy variable that takes on the value of one when it is a parliamentary election year is added. The second calculates how close the election is to that year. If the elections are held in that year, it takes on the value of zero. If the elections are held in the previous or following year, it takes on the value of one. If the elections took place two years ago, it takes the value of two. Finally, the number of days between the last day of that year and the date of nearest elections is measured.

Other works have argued that district magnitude might affect how politicians appeal to voters.[42] Lower district magnitude is hypothesized to increase the use of material benefits by making the electoral competition more candidate-oriented. Therefore, the number of legislators chosen from each district is included in the analysis. This variable is expected to have a negative coefficient. The other variable proposed by previous studies is competition from parties (politicians) with close policy positions. Hagopian claimed



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that, when parties can no longer differentiate themselves based on policy positions, electoral competition becomes more candidate-oriented, and the candidates distribute particularistic benefits such as investment subsidies when they are appealing to voters in elections.[43] A previous study by Carkoglu is used to measure this variable.[44] Carkoglu analyzes party manifestos (using the comparative manifesto analysis method) and assigns a position to each party on the left-right policy scale.[45] These points are used to measure the policy differences between the party that controls the distribution of certificates and its closest competitor in each district.[46] The results of the elections closest to each year under consideration are again used.

## Methodology

The dependent variable of the analysis is a count of the total number of certificates that are received by a district per year. This characteristic of the dependent variable and the data's panel nature (cross-sectional time series) need to be taken into account when choosing the methodology to analyze the data. Even though Poisson distribution models have been popular in social science to analyze count data, the Poisson distribution has a crucial property- equidispersion.[47] However, this property is violated in most of the observed real world data.[48] To free the analysis from the restriction that the variance and mean are equal, the negative binomial model can be used. The derivation of the negative binomial involves the introduction of individual heterogeneity by making the assumption that the Poisson parameter follows a gamma distribution.[49] The easiest way to test for overdispersion in the data is to estimate first both the Poisson and negative binomial models and then check which one is more appropriate.[50] The results of the test for this projects' data indicate overdispersion. (See Appendix 2 for the results of the overdispersion test.) The negative binomial model is thus more appropriate for the analysis.

The panel nature of the data introduces additional problems for the analysis. The model has to take into consideration the individual district effects. These individual effects can be assumed to be either fixed or random. Even though taking these effects as random makes the analysis easier, it necessitates an additional assumption that these individual effects are independent of the other explanatory variables. Therefore, the validity of this assumption needs to be tested. The Hausman test is used to see whether the two models are consistent. However, the fixed effects model against which the random effects model is tested can not be simply estimated by adding district dummies.[51] Hausman, Hall, and Griliches propose to use, instead, the conditional maximum likelihood approach, where the count distribution of each cross-sectional unit is conditioned on the total sum of outcomes for the whole period.[52] As applied to the data on certificates for investment subsidies, conditional maximum likelihood estimation allows each district to have its "own propensity" to receive these licenses.[53] The results of the Hausman test do not support the assumption that the individual district effects are randomly dis-



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tributed, that is, their effects are independent of the other explanatory variables (see Table 1). These results imply that the fixed effects model is more appropriate to analyze this dataset. The maximum likelihood estimates for the conditional fixed effects negative binomial model are obtained using the STATA software.

**Table 1** Hausman Test

| | ---- Coefficients ---- | | | |
|---|---|---|---|---|
| | (b) | (B) | (b-B) | sqrt(diag(V_b-V_B)) |
| | Prior | Current | Difference | S.E. |
| Votes of coalition partner | -.7698037 | -.7475064 | -.0222973 | .0708434 |
| Votes of party in control | -.0870214 | -.2961637 | .2091423 | .2050808 |
| Competitiveness | -.1600098 | .0418517 | -.2018615 | .2333301 |
| Elections | -.1992384 | -.1242209 | -.0750176 | .0271251 |
| District magnitude | .0237549 | .0124159 | .011339 | .0247909 |
| Ideological proximity | .0895677 | .1419117 | -.0523439 | .0460058 |
| Priority in development | -.2660148 | -.117985 | -.1480298 | .1495487 |
| Credit subsidies | -.4756442 | -.4751001 | -.0005442 | .0426824 |
| Change in agency | 1.309014 | 1.211049 | .0979651 | .0323444 |
| Logged GDP | .4274089 | .9064635 | -.4790546 | .1162759 |
| Population | -.3060985 | -.2508896 | -.0552089 | .1988502 |
| Credits | .0004731 | .0003906 | .0000825 | .00013 |

b = less efficient estimates obtained previously from fixed effects model B = fully efficient estimates obtained from random effects model

Test: Ho: difference in coefficients not systematic

chi2( 12) = (b-B)'[(V_b-V_B)^(-1)](b-B)= 56.78 Prob>chi2 = 0.0000.

Therefore, we can conclude that the assumptions of the random effects model are not supported.

## Findings

Table 2 presents the results of the conditional fixed effects negative binomial models. Results from three separate models are reported. The models use three different ways of measuring one of the explanatory variables, the timing of elections. The most important finding concerns the impact of the coalition partner's vote share on the number of certificates, which supports the expectation of a negative and significant effect. The coefficient



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**Table 2** Investment Subsidies Across Districts (1992-1997)

| | (1) Dichotomous | (2) Cycle | (3) Days |
|---|---|---|---|
| **Explanatory Variables** | | | |
| **Political Variables** | | | |
| Vote share of coalition partner | -0.77 | -0.61 | -0.61 |
| | (0.26)** | (0.24)* | (0.24)* |
| Vote share of party in control of subsidies | -0.09 | 0.53 | 0.84 |
| | (0.53) | (0.46) | (0.48) |
| Competitiveness | -0.16 | -0.74 | -1.04 |
| | (0.72) | (0.67) | (0.68) |
| Timing of elections | -0.20 | 0.28 | .001 |
| | (0.07)** | (0.04)** | (0.0002)** |
| District Magnitude | 0.02 | 0.06 | 0.057 |
| | (0.03) | (0.033) | (0.032) |
| Ideological difference | 0.09 | 0.58 | 0.31 |
| | (0.12) | (0.14)** | (0.12)** |
| **Institutional Controls** | | | |
| Provinces with priority in development | -0.27 | -0.29 | -0.32 |
| | (0.20) | (0.20) | (0.20) |
| Subsidies in the form of credits - | 0.48 | -0.57 | -0.40 |
| | (0.11)** | (0.10)** | (0.10)** |
| Change in agency | 1.31 | 1.37 | 1.44 |
| | (0.10)** | (0.08)** | (0.09)** |
| **Socio-economic Controls** | | | |
| Logged GDP | 0.43 | 0.44 | 0.38 |
| | (0.14)** | (0.14)** | (0.14)** |
| Population | -0.31 | -0.59 | -0.53 |
| | (0.26) | (0.24)* | (0.24)* |
| Private credits | 0.0005 | 0.0006 | 0.0006 |
| | (0.0002)* | (0.0002)** | (0.0002)** |
| Constant | -3.88 | -4.43 | -3.95 |
| | (1.90)* | (1.94)* | (1.94)* |
| Observations | 436 | 436 | 436 |
| Number of provinces | 78 | 78 | 78 |

Standard errors in parentheses
* significant at 5%; ** significant at 1%



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indicates that, when the values of all other variables are kept constant, increasing the vote share of the coalition partner that does not have control over the allocation of subsidies in a district decreases that district's expected rate of receiving certificates for subsidies. Allocation of subsidies in Turkey is highly centralized under a single agency that is controlled by only one of the parties in coalition governments. Since the party in control wants to prevent its coalition partner from claiming credit for distributing these subsidies, districts in which the coalition partner is strong receive a relatively smaller number of subsidies.

Table 2 also contains interesting findings concerning the control variables. The empirical analysis does not show any support for the arguments that are suggested by previous studies. An unexpected result is that the competitiveness of elections does not seem to have an impact on the distribution of the subsidies. This suggests that politicians' incentives to distribute investment subsidies to a district are not affected by how marginal a district is electorally. In the debate about targeting loyal supporters versus swing voters with particularistic goods, the distribution of subsidies under coalition governments in Turkey fits neither argument. After controlling for the coalition partner's vote share, neither districts where the party in control of distributing subsidies is strong nor districts where there is close electoral competition receive a higher number of subsidies.

The results concerning the timing of elections are also surprising. In contrast to expectations, in the years closer to elections (columns two and three), fewer certificates were allocated. In election years, the districts' rate for receiving subsidies is lower than expected. In all models, the coefficients are statistically significant but do not have the expected signs.

Another hypothesis is that, if parties can not differentiate themselves from their competitors with their policies or ideology, they will use material benefits to gain votes. However, this argument is also not supported by the results of the analysis. The expected rate is higher for those districts where the incumbent faces a competitor with policy positions that are distant from its own. The coefficient for this variable loses its statistical significance when the timing of elections is measured with the dichotomous variable.

District magnitude was also expected to have a negative effect on the number of subsidies. According to previous arguments, in districts where the number of legislators to be elected is low, elections are centered on individual candidates rather than parties. Since visibility is more important for individual candidates, strategies like distributing material benefits are employed more in these districts. District magnitude can be included in the analysis with fixed district effects because there is some variation with time in the same district. Yet the direction of the effect is opposite to the expectations of studies about personal vote, and the coefficient is not statistically significant.

The next variables are related to the economy and demography. The coefficients for the logged values of GDP support the expectations. In all models, the effect is statistically significant and positive, as expected. However, the results for population (in millions) are surprising. In contrast to expectations, the effect of population on the rate of certificates received by a district is negative. The statistical significance is lost when the timing of elections is measured with the dichotomous variable (column 1, Table 2). The effect of bank credits is, as expected, positive and significant.

The variables that concern the way subsidies are distributed in Turkey again provide some unexpected results. Contrary to expectations, districts that are specified as "regions that have priority in development" do not have higher expected rates of receiving subsidies. This result might be due to a lower level of demand for investment in these regions



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even after controlling for their GDP and bank credits. Even though it was expected that the total number of subsidies would increase when the government no longer distributes monetary credits, analysis shows contrary support. Starting in 1994, when monetary credits were eliminated, provinces received fewer subsidies compared to earlier years. The institutional change in the agency that is responsible for distributing the licenses, however, increased the level of subsidies.

## Conclusions

Studies of economic development have long emphasized the importance of preventing state intervention in the economy from being captured by particular private interests. Even though historical factors have been crucial in shaping the link between state and private actors, current electoral politics also contribute to or hinder the choice of parties/politicians in government with respect to how they distribute goods originating from the state. Some political and socioeconomic factors can clearly hinder the independence of the state from private interests by giving incentives to politicians to establish particularistic networks through which they can channel state resources to private actors.

Investment subsidies provide an important resource that governments can effectively use as part of their industrial policy, but they can also be open to manipulation by politicians in exchange for some type of political and/or financial support from private actors. The empirical analysis in this article shows that politics under coalition governments can prevent equal access to these subsidies by economic actors. Due to data limitations, the analysis covered only six years, but the results from this time period suggest a link between credit claiming in coalition governments and distribution of subsidies. If coalition governments, such as in Turkey, are organized so that a single party is in control of allocating investment subsidies and legislators from all parties in government can claim credit for distributing these subsidies, constituencies of coalition partners that do not control the allocation of subsidies can have lower chances of getting subsidies. Therefore, not all private business would have equal opportunities to get support from government.

As recent studies of cronyism in East Asian countries show, the link between corruption and economic performance (development) depend on conditions such as the balance of power between the state and business and the competence of entrepreneurs who receive particularistic material benefits from the state.[54] Therefore, it would be necessary to conduct further research to explain how the particularistic distribution of these subsidies affects development. However, it can be concluded that especially for countries like Turkey, where the private sector is still dependent on the state to a large degree, such inequality in the distribution of goods like subsidies is likely to hurt the legitimacy of state intervention in the economy. In addition, long-term expectations play a crucial role in investment decisions. If the allocation of subsidies is dependent on the partisan com-



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position of governments, the predictability of having access to such an important resource would be low and would in turn reduce the effectiveness of subsidies to generate private investment.

Similar mechanisms would be expected to affect the distribution of goods in other countries, such as Japan or India, where coalition governments are formed by office-seeking politicians who employ particularistic exchanges as part of their electoral strategy. However, two conditions are necessary. First, the distribution of the material benefits has to be centralized under the control of a single party, and, second, all legislators from parties in government have to be able to claim credit for the allocation of this benefit. Thus, the theoretical argument is limited not only to parliamentary governments, but can also be applied to presidential systems where politicians from different parties are appointed to ministerial positions.[55] Under these two conditions, constituencies of different parties in coalition governments would have unequal access to goods that originate from the state. This inequality would, in turn, be expected to lower the effectiveness and, especially in cases where the private sector is dependent on state support, legitimacy of state intervention in the economy.

## Appendix 1: Sources of Data

## Dependent variable

Certificates (for investment subsidies) that are received by a district per year, National Planning Organization (DTP) web-page, http://ekutup.dpt.gov.tr/iller/1999/gosterge.html.

## Independent Variables

Vote shares for coalition partners and party in control of subsidies, competitiveness, and district magnitude: Election results provided by National Statistics Institute, Istanbul and Belgenet, http://www.belgenet.net/.
Ideological difference: The policy position of each party was measured by using Carkoglu's (1995) analysis of election manifestos.
Provinces with priority in development: This information is provided by Duran (1998).
GDP: Gross domestic product in each district (indexed to 1987 prices and in millions), DTP web-page, http://ekutup.dpt.gov.tr/iller/1999/gosterge.html.
Population: Population information is available only for 1990 and 1997. Measurements for other years are calculated according to the average increase in population between 1990 and 1997, DTP web-page, http://ekutup.dpt.gov.tr/iller/1999/gosterge.html.
Private credits: The data are available at the Association of Turkish Banks' website. The



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credits are adjusted to U.S. dollars and are in millions, http://www.tbb.org.tr/turkce/bulten/yillik/1997/mevkredi/tablo10.htm.

## Appendix 2: Overdispersion Test

Since the negative binomial model reduces to the Poisson regression model when $\alpha=0$, overdispersion can be tested by $H_0$: $\alpha=0$. The likelihood ratio test is: $G^2=2(\ln L\{NBRM\}-\ln L\{PRM\})=2(-1148.0326+1727.7013)=2(579.6687)=1159.3374$. With $p<.01$, the null hypothesis is rejected.

### NOTES

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32. At this point, a brief note on political institutions and the party system in Turkey is necessary. Turkey has a unicameral parliamentary system. The legislators are elected every five years (if early elections are not called) in electoral districts according to proportional representation using the d'Hondt method of vote allocation. In the period of analysis, the district magnitude ranged from two to twenty-one.

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37. Due to a change in the DYP's leader, two separate coalition governments were formed with the same composition of parties between November 1991 and October 1995.

38. Only one coalition in this period included more than two parties. In that case I used the vote share of the coalition partner with the largest number of seats in parliament.

39. See, for example, Cox and McCubbins; Dixit and Londgregan; Steven D. Levitt and James M. Snyder, "Political Parties and the Distribution of Federal Outlays," *American Journal of Political Science*, 39 (1995), 958–80.

40. The transfer of responsibility across state departments might have an effect on the distribution of subsidies if the level of professionalization is different across departments. I thank Rebecca Weitz-Shapiro for drawing my attention to this point.

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