

Federal budget allocation in an emergent democracy. Evidence from Argentina

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Abstract

In this paper we study the determinants of the geographical distribution of the national budget amongst Argentinean provinces. We evaluate the relevance of the alternative theories of budget allocation using a panel data that spans for the 23 provinces and for the period 1996- 2004.

Our results confirm our presumption that the Executive, by exerting its political power at the implementation phase, inhibits the Congress participation in the distribution of budgets expenditures. Federal funds allocations are dominated by the action of the Executive and the governors. Presidents favor their home provinces, the districts where they get the higher difference with the main rival parties and provinces administered by governors affiliated to their same party. Additionally the importance of the lagged dependent variable in all three specifications supports the choice of the Arellano-Bond method of estimation.

On the other hand, unlike some findings for the U.S., neither the overrepresentation variables nor the congressional theories find support in our sample. The only congressional indicator with usual levels of significance is the Chair of the Appropriations Committee of the Senate. In the same token, the alignment of the governor and the majority of the House furnishes resources for the province. The disparity observed in the allocation of the federal funds among districts in the country cannot be analyzed using the same factors observed in studies examining the U.S case.

Key Words: Budget allocation, Congress, Distributive politics.

JEL Classification Codes: D72, H77.

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I. Introduction

In the last two decades the empirical literature on redistribute politics and more generally, the research on Congress has helped to understand how federal money is distributed between U.S states. It has also enhanced our knowledge about the functioning of U.S. Congress and its interrelation with the Executive branch of the government regarding federal politics. By now, it is widely accepted that the overrepresentation of small states, specially in the Senate, plays an important role in the allocation of federal net spending; that states whose governors have the same political affiliation as the President receive more federal funds; that the legislative process is dominated by committees, that senior members have disproportionate impact on grant allocation, and that political parties target types of voters but they cannot easily do it with specific districts.

Giving the overwhelming empirical evidence, we could speculate in finding similar results in countries with analogous constitutional arrangements. It seems reasonable to extrapolate the U.S. findings to other countries with similar federal systems. However, the analysis of the institutional structure of *emerging democracies* suggest that there may be substantial differences. Since the pioneer analysis of Jones, Saiegh, Spiller and Tommasi (2002) various papers have coincided that the Argentinean Congress, unlike the U.S., has a weak role in the policymaking of the country, particularly regarding the determination of the national budget.

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Although the procedures stated by law regarding the balance between the Executive Branch and the Congress for the budget formulation is wise, it seems, like in many areas of the government, that there exists a discrepancy between what the Law says and how the decision making process actually occurs. Specifically, in the case of the formulation of the Budget Law in general and the allocation of the federal resources among districts in particular, apparently the Congress plays a minor role, very far from the one implied by the legislation, leaving plenty room for the Executive to act in a discretionary manner.

As note by Abuelafia et al. (2005), several *de facto* practices have eroded the prerogatives of the Congress in the budget process. The Executive, by exerting its political power at the implementation phase, inhibits the Congress participation in the distribution of budgets expenditures. There are two main ways in which the Executive changes the budget at the implementation stage. First, by changing the approved budget by using decrees. Second, by using the administration of the quota system in a discretionary manner.

Moreover, the Congress is the only branch of government entitled by Law to modify total expenditure and the total authorized debt level¹. Additionally, only Congress can modify the economic classification of expenditures and its objective and function. Nevertheless in practice, the combination of overestimation of revenues in the formulation stage together with the discretionary use of the quota system erode the actual influence of Congress on budgetary decision and left the Executive with the ability to unilaterally decide changes in budget allocations. Hence, if the Budget Law can easily be circumvented by the Executive Power, and this is common knowledge, the incentives of congressmen and senators to introduce modifications during the budget process will be weak since their ability to determine the allocation of funds can be easily overwritten. This fact allows us to hypothesize that the discretionary power of the Executive to modify the law inhibits the Congress participation, hence the difference between the Budget Project and the Budget Law will be non significant² and the determinants of geographical distribution of federal funds will be in the hands of the Executive and the governors of the provinces. If the Congress is not important at the proposal and discussion stage, thus, it is not important at all for federal funds allocation.

¹ See *Ley de Administración Financiera* (Financial Administration Law)

² A Chi² test was performed to evaluate the possible differences between the budget project and the budget law and we have not found evidence that supports that hypothesis.

The objective of this paper is to study the determinants of the geographical distribution of the national budget amongst provinces. We evaluate the relevance of the alternative theories of budget allocation for the case of an emergent democracy, like Argentina estimating a panel data that spans for the 23 provinces and the for 9 years period going from 1996 to 2004.

This paper contributes to the empirical literature of distribute politics, abundant in studies on developed countries, specially the U.S. but lacking in emerging democracies analysis. The importance in understanding the mechanisms underneath the Federal Budget, in countries that have not consolidated its institutions, relies on the fact that the conclusions extracted from previous studies may drive to the wrong policies in order to improve the distribution between districts. Additionally, by studying the interaction channels within the Congress and between the Legislative Branch and other decision players in an emergent and federal democracy, we contribute to the understanding of a central and complex issue that has implications exciding the distributions of resources.

The paper is organized as follows. Section II summarizes the theoretical literature and some of the most important empirical papers. Section III discusses the relevant characteristics of federal budget allocation in Argentina. Section IV outlines the model used in the estimates and in Section V we present the empirical results. Finally, section VI concludes.

II. Models of Distributive Politics

II.1. The Theory Underneath

The existing literature on distributive politics relies on three types of general models when trying to explain the process behind the national budget. These theories do not necessarily substitutes each other but could work in a complementary way.

a) Models stressing the role of Congress. According to these models, house and senate leaders, committees chair, caucus leaders and certain representatives with a high profile and acceptance among voters, are able to negotiate with other congressional members and with the Executive Branch in order to obtain a substantial share of the available federal funds for their jurisdictions. Giving this view, the federal outlays allocation should be driven by a pork-barreling.

As Weingast and Marshall (1988) argue, since the committees are decentralized decision-making units composed of those legislators with the greatest stake in their jurisdictions, their power to decide what proposals are brought to the floor, places them in an agency relationship with the rest of the legislature. Larcinese et. al (2005) reinforce this idea by stating the hypothesis that the committee members, most specifically representatives controlling the chairs of strategic committees, tend to belong to districts where the decision made by those committees reallocate resources in favor of their jurisdictions. Putting it in another way, those districts with representatives holding the chairs of key committees receive disproportionately more money than those legislators whose committees have less relevance. Following this same line of thought, Alvarez and Savings (1997) identify a bias in the amount of federal outlays towards the states of the committees chair.

b) Theories emphasizing the importance of Political Parties. These models view political parties as unitary actors maximizing some mix of policy and reelection goals, hence controlling the budget process is crucial to their objectives. Even though same-party politicians cooperation could be limited, because conflicting preferences, they may be able to direct resources to their constituency (See Cox and McCubbins, 1993 and Levitt and Snyder, 1995).

c) Models relying on the democratic system rules. For these theories the number of districts and the number of delegates per district for the Congress established by the law and the Constitution are ultimately the key elements to explain policy. As point out by Lee (1998), the equal representation of U.S. states in the Senate grants enhances power to senators from small states by comparison to a Legislative chamber that apportions representatives according to population. This is true not only because senators from small states have voting power equal to that of senators from large states, but simply because there are so many small states. Differences in states sizes means that all states are not equally costly to program budgets, but each senator's vote is of the same value to the coalition. Adding a small state as a program beneficiary is likely to cost a coalition leader less in terms of program dollars than adding a larger state. A small-state senator's vote may be influenced at a lesser cost to the program budget than that of a larger-state senator. As a result, expanding the beneficiaries of the program to include small-state population will be less expensive for coalition builders, putting less pressure to program budgets.

II.2. Empirical Literature

The empirical literature is heavily biased towards the U.S. case. Different studies put emphasis on various indicators to understand how districts obtain their share of the federal pie. Most of the results give partial answers on the insights depending on the scope of the studies.

Some authors explore the idea of congressional attributes for countries with a solid check and balance principle (i.e., Congress limiting the Executive in its attempt to dominate discretionally the Budget). In this matter, Levitt and Poterba (1994) develop a quality measure of the members of the U.S. Congress. They test different measures of quality, namely seniority and committee membership.

In this same line of congressional characteristics, Atlas et. al (1995) consider the per capita federal net spending across the 48 continental states between 1972 and 1990 to evaluate the federal funds share allocation along the U.S. states. Their findings point out to the overrepresentation of small states, specially in the Senate, to explain why small districts receive larger amounts of federal funds compared with larger states.

Another partial explanations underneath the distribution of federal money deal with partisan reasons. Cox and McCubbins (1993) present evidence of political party influence on election outcomes, committee assignments and transfers, aggregate federal expenditure levels and roll-call voting in the House of Representatives.

Following part of these arguments, Levitt and Snyder (1995) put their emphasis in studying the party system. Their paper shows that the federal budget favor districts with large share of Democratic voters. These conclusions recognize the substantial role, although not unlimited, played by political parties in determining the geographic distribution of the federal expenditure.

Fenno (1966), Sinclair (1983) and Cox and McCubbins (1993) argue that agenda setting is also an important prerogative of the Congress. In this matter, the Argentinean case is enlightening since the committees presidents (specially in the Senate) define the agenda which gives them some sort of veto power. In other words, they can decide which are the issues to be discussed within the committee.

The third line of research emphasizing the role of institutional rules (such as the electoral system and the district size) may also explain partially what occurs with the national budget fight between states. Atlas et. al (1995) and Lee (1998) reported statistically significant relationships between the overrepresentation effect and the distribution of federal money and Knight (2004) formally derived this relationship from a modified theoretical legislative bargaining model allowing for a variable delegation size. The model predicts a bargaining advantage for small states, defined as a positive relationship between delegates per capita and federal spending per capita.

Table 1. Some previous empirical results on distributive politics

Authors	Country	Period	Dependent Variable	Main Findings
Atlas, Gilligan and Hendershott (1995)	U.S.A.	1972 - 1990	Real per Capita Federal Net Outlays.	Over representation, specially in the Senate, play an important role in the allocation of federal net spending among U.S. states.
Levitt and Snyder (1995)	U.S.A.	1984- 1990	Federal Outlay per District.	The federal domestic outlays is skewed in favor of Democratic districts. A substantial role for political parties is found although the capabilities of parties are limited.
Alvarez, and Saving, (1997)	U.S.A.	1989- 1990	New outlays for each district.	Strong and systematic evidence of pork-barrel activities by committee members.
Lee (1998)	U.S.A.	1984- 1990	Per Capita Outlay per District.	Federal distributive programs are typically constructed so that a majority of states benefit. Over-represented states, in the Senate, tend to receive higher federal allocations of federal funds per capita, specially in programs characterized as non discretionary distributive.
Knight (2004)	U.S.A.	1995- 2003	Per Capita Spending.	Positive relationship between per capita spending and per capita delegates.
Larcinese, Rizzo and Testa (2005)	U.S.A.	1982- 2000	1. Real per Capita Federal Expenditure. 2. Real per Capita Outlays by Program.	Positive relationship between over representation and the dependent variables. States whose Governor has the same political affiliation than the President receive more federal funds. Evidence of substantial budgetary power of the President. Senior members have disproportionate impact on grant allocation

III. The Federal Funds Allocation Game in Argentina

III.1. A General Overview

According to the Argentinean legislation, the process leading to the allocation of the federal budget consists of four different stages starting with the formulation of the proposal by the Executive branch, followed by the discussion of the project by Congress (where it is supposed to be discussed and eventually modified in the relevant committees and in the floor of both chambers). After the law is enacted, the budget is implemented by the Executive (stage three) and finally it is evaluated and controlled by the pertinent organisms. The first two steps are of special relevance to understand the dynamics of the game played by the different political actors. The key players in the national budget negotiation scheme are:

1. The President.
2. The Governors and/or Local Party Bosses.
3. The Congress.
 - 3.1. Committee Chairs and specially, the Appropriation Committee chair.
 - 3.2. Senior Congressmen and Senators.

Although these actors have their own priorities, there exists interaction between them in many ways depending on the district they belong to and the position each of them hold. However, we can find regularities in their behavior and incentives across provinces and through time. The way these players interact with each other depend not just on economic variables but on many factors dealing with the political and the electoral arrangement.

In Argentina many factors intervene in the distribution of the federal budget among the country's 24 districts³. One "irregular", but frequent, method of obtaining funds is related to the electoral system that normally bypasses the intrinsic power of the Congress to the local party bosses and the governors. The reason of this transfer of power by congress representatives relies on the fact that, in most cases, legislators obtain a relevant position in the ballot list appointed by the provincial leader. Therefore, they have little incentives to specialize in committees like the U.S. colleagues.

Moreover, seniority, measured as number of periods serving as Congress delegate, may not be an important asset for federal funds allocation as it is in the case of the U.S. (see

³ The 23 provinces and the federal district of the City of Buenos Aires.

Larcinese et. al, 2005) since the main objective of the legislator is to obtain the favor of the party leader instead of his constituency. Additionally, the Argentinean case suggests that efficient and good legislators may not be re-elected if they do not fulfill the personal project of the party boss, independently of the district needs and the legislator quality.

Hence the real power is, ultimately, on governors or local party leaders hands instead of the voted candidates for Congress. In consequence, the federal resources that each province receive depends on a political mechanism that, in general terms, excludes most congressmen and senators.

Furthermore, the need of professionalism in many areas of Congress that conspire with a more advance democracy can also be seen in the fact that the Argentinean Legislative Branch lacks enough specialists to assist the congressmen in the elaboration phase of the budget. In fact legislators usually are assisted by the political party or the Executive consultants reinforcing the loss of influence of the Congress in its relationship with the Executive.

Llanos (2003) also finds out that only 9% of the Senators take floor debates into consideration when voting for a bill while 57% decide their vote following the caucus decision . At the same time, most senators consider that committees are not an instance of technical discussion for a bill. Then a natural question arises, how do they decide on a bill? Clearly, the Executive Power on one hand and the provincial leaders on the other seems to be the strong players in spite of the Legislative Power. Additionally, as the legislators lack enough influence in negotiating key laws for their districts, then the governors and the local party bosses are highly influential on legislative careers, so seniority results from loyalty to governors and local leaders instead of popular approval.

Additionally, the Argentinean legislative system suffers from serious limitation in producing long run public policies. As point out by Jones et al. (2000) the high turnover rate in the Argentinean Congress in general and in the Committees in particular limits “legislative qualities”. Moreover, if we consider that most of the legislatives agreements are carried out in an imperfect information environment, the high turnover rate results in even worse legislative outcomes.

Following this same research line, Nino (1992) argues that the central characteristic of the power structure in Argentina has been the strong presidentialism in which the President absorbs congressional functions. Uña (2005) studies the performance and the conditionings of the Congress in the Budget process concluding that caucuses decisions respond to short run political priorities of the major actors of the game: key members of the Congress and provincial governors. In this framework, the approval of the budget project by congressmen and senators can be considered as a support signal from governors to the Executive.

As said by Abuelafia et. al (2005) the high rigidity of the budget expenditure in Argentina⁴ is a key characteristic that limits Congress negotiation power. Furthermore, they argue that the agreements between the President and the Governors prior to the Budget discussion erode the spirit of the legal system regarding the budgetary process. The Executive tends to manipulate and modify the legal procedures according to short terms preferences⁵.

Although one of the characteristics of emerging democracies is that laws and institutions are relatively similar to those of developed economies, the enforcement of those laws are not easily done. The laws and institutions governing de budget process are not exceptions.

III.2. Inside the National Budget

The National Budget accounts for approximately 50% of the total expenditure in Argentina. The Budget is usually classified in two main items: Current Expenditure Account and the Capital Expenditure Account. The first one is greatly influenced by salaries, public sector consumption and social security expenses and therefore the variation from one year to another is determined mostly by the previous year's. The second main component of the budget contains mainly direct investment and financial transfers to the provinces. Thus, Capital Expenditures are the most likely to be influenced by different lobby groups, such as governors, congressmen, senators, and other actors⁶.

One peculiar characteristic of the per capita Capital Expenditure and the per capita Direct Investment is the high variability through time and across provinces. Table 2 summarizes the descriptive statistics ordered by the coefficient of variation. Notice that provinces of Santa

⁴ 78% of the spending included in the 2004 budget can be considered rigid and therefore not subject for negotiation between power factors.

⁵ Alesina and Perotti (1996) sustain that the channels through which the Executive dominance is manifested is not trivial.

⁶ The correlation between total budget and capital expenditures is 69%, total budget and Direct Investment is 38% and that of the capital expenditures and real direct investment is 81% (see Appendix)

Cruz (home province of the current President Kirchner) and La Rioja (home province of former President Menem) lead the ranking of relative variation. The tremendous difference between the maximum amount received by Santa Cruz and La Rioja during the Administrations of Kirchner and Menem respectively and the minimum during the rest of the presidencies gives some flavor of the mechanisms involved in the allocation of federal resources.

Table 2. Per Capita Real Capital Expenditure. Descriptive Statistics 1997-2005.

Province	Average	Standard deviation	Coefficient of variation	Maximum	Minimum
Santa Cruz	522.5	347.2	0.66	1446.4	188.7
La Rioja	385.0	167.5	0.44	771.5	220.5
Córdoba	61.2	24.9	0.41	121.3	29.3
San Juan	163.1	65.5	0.40	252.5	71.0
Corrientes	135.5	53.9	0.40	215.2	68.3
Santiago del Estero	128.0	49.0	0.38	185.1	54.6
Santa Fe	70.3	25.6	0.36	124.5	35.3
Formosa	201.7	72.9	0.36	340.8	100.5
San Luis	205.8	72.5	0.35	312.4	93.9
Tucumán	79.9	27.3	0.34	127.2	39.6
Tierra del Fuego	583.1	197.3	0.34	931.9	251.1
Entre Ríos	100.9	32.8	0.32	153.0	52.2
Salta	104.7	32.3	0.31	145.1	56.8
Catamarca	193.0	59.2	0.31	262.2	100.2
Chaco	115.1	33.8	0.29	154.4	64.3
Neuquén	215.0	62.6	0.29	302.5	122.2
Chubut	223.9	64.0	0.29	300.3	132.8
Mendoza	77.9	21.4	0.28	112.3	50.0
Country	114.0	27.7	0.24	151.9	71.8
Misiones	113.2	27.3	0.24	145.5	66.8
Jujuy	181.8	43.4	0.24	239.5	125.2
Río Negro	223.9	51.1	0.23	305.0	155.3
Buenos Aires	98.8	18.9	0.19	122.9	69.7
La Pampa	338.5	61.0	0.18	409.7	209.4

Source: Authors' calculation based on *Oficina Nacional de Presupuesto* data.

Certain districts receive disproportionate amount of funds that are not reflective of their socio-economic characteristics. Table 3 classifies the provinces according to the political representation in the Congress and also considering the degree of development. It is worth

noting that poor provinces receive almost the same amount of money per capita as low density districts.

Table 3. **Federal Budget Allocation. Average 1997-2004**

Provinces		Real Per Capita Total Budget	Real Per Capita Capital Expenditure	Real Per capita Direct Investment
Underrepresented	Advanced	1066.1	71.7	13.8
Overrepresented		1657.9	212.6	65.0
	Intermediate	1269.0	126.4	31.6
	Poor	1363.7	231.5	72.9
	Low density	1391.7	180.8	62.7

Source: Authors' calculation based on *Oficina Nacional de Presupuesto* data.

Note: Underrepresented provinces: Buenos Aires, Córdoba, Mendoza, Santa Fe; **Overrepresented provinces**: Tucumán, Entre Ríos, Salta San Juan, San Luis; Formosa, Chaco, Santiago del Estero, Jujuy, Catamarca, La Rioja Misiones; Santa Cruz, Chubut, Río Negro, Neuquén, La Pampa, Tierra del Fuego. **Advanced provinces**: Buenos Aires, Córdoba, Mendoza, Santa Fe; **Intermediate provinces**: Tucumán, Entre Ríos, Salta San Juan, San Luis; **Poor provinces**: Formosa, Chaco, Santiago del Estero, Jujuy, Catamarca, La Rioja and Misiones; **Low-Density provinces**: Santa Cruz, Chubut, Río Negro, Neuquén, La Pampa, Tierra del Fuego.

IV. Data Description and Model

We construct a panel that spans from 1996 to 2004 and covers the 23 provinces⁷ (we exclude the federal district, City of Buenos Aires). In order to determine which factors affect the federal funds distribution amongst provinces, we set a very standard model including two types of variables. The first group describes the political and institutional features of the distribution process. These indicators try to capture the influence of the various political actors that participate in the distribution game: the Executive Power, the Congress, the province Governors and the Parties. The second group includes economic variables used as controls. The general form of our empirical specification is the following:

$$FF_{i,j} = f(PI_{i,j}, E_{ij})$$

Where:

- $FF_{i,j}$ are the real per capita federal expenditures contained in the National Budget Law for province i in year t .

⁷ Data are available from the authors upon request.

- $PI_{i,t}$ are the political and institutional variables for province i in year t .
- $E_{i,t}$ are the economic variables for province i in year t .

Our strategy to study the relevance of the alternative theories of budget allocation for the case of Argentina is to estimate different functions having per capita expenditure aggregates as dependent variables; starting from the largest and more rigid aggregate and continuing with more flexible spending components. So, we firstly estimate the geographical distribution of Total Budget and then we successively estimate the determinants of the Capital Expenditures and the Direct Investment, all of them at constant prices and in per capita terms.

According to the literature, we should expect that any of these dependent variables are determined mainly by the constitutional and electoral rules that set up a disproportionate representation to small provinces and by the inertia of the budget process. Nevertheless, giving the institutional weaknesses of the emergent democracies, we could expect that *de facto* powers (as opposed to legal) dominate the allocation of funds amongst jurisdictions.

IV.1. Dependent Variables

The definitions of the three dependent variables are the following:

$PCTE_{it}$: is the real per capita Total Expenditure contained in the National Budget law for province i in year t . (in 1999 constant pesos)

$PCCE_{it}$: is the real per capita Capital Expenditure for province i in year t . (in 1999 constant pesos)

$PCDI_{it}$: is the real per capita Direct Investment for province i in year t . (in 1999 constant pesos)

IV.2. Independent Variables

We included various political and institutional variables proposed by the theories at stake as well as some indicators trying to capture the particularities of emergent democracies. Firstly, we consider the quantity of delegates per capita for both, the Senate and the House of Representatives. Given the fixed number of senators per province (three) the

overrepresentation of small districts is more severe than in the House, where the basis for representation is the population of the province although a minimum of five delegates introduces some overrepresentation on that chamber too.

*OVERREPSEN*_{it}: number of senators per capita in province *i* in year *t*.

*OVERREPHOU*_{it}: number of House Representatives per capita in province *i* in year *t*.

Secondly, we also take into account the “seniority” of the delegates. The “seniority” tends to capture the quality⁸ features of the representatives in Congress. It is defined as the numbers of years that each member of Congress has hold a seat. We sum up all years regardless when or in which chamber the representative has served. We speculate, as other authors do (see Levitt and Poterba, 1994) that more years in Congress signal more experience and abilities in lobbying for obtaining more resources to their provinces⁹. Specifically, we generate three seniority variables considering each member of the House that has serve at least 5 years in Congress and each member of the Senate that has served at least 7 years in Congress. Both thresholds indicate that the representatives have survived at least one reelection in the House or in the Senate respectively. Then we calculate the percentages of these congressmen for each province to approximate the quality for each district.

Notice that whereas *OVERREPSEN* and *OVERREPHOU* are variables that captures only the importance of Congress, while the *SENATE* and *HOUSE* may also indicate the influence of governors since, in the case of Argentina, usually appoint senators and representatives to the Senate and the Low Chamber respectively (see Jones et al., 2002). Moreover, the reelection of delegates may be indicative of the loyalty of a given congressman or senator to the governor or local party boss. The variables considered are:

*SENATE*_{it}: Share of senators with at least 7 years in Congress for province *i* in year *t*, in percentage terms.

*HOUSE*_{it}: Share of congressmen with at least 5 years in Congress for province *i* in year *t*, in percentage term.

⁸ For *quality* we mean that a given legislator has acquired characteristics allowing him/her to obtain more national resources for his/her district.

⁹ In this matter, Levitt and Poterba (1994) develop a quality measure of the members of the U.S. Congress. They test different measures of quality, namely seniority and committee membership.

Thirdly, we also take into account the role of the committees in the geographical distribution of the federal budget. Congressional theories consider that committees in general and committee presidents in particular are major players in the distribution game. In the case of Argentina, this influence arises basically from the presidency of the committee. Thus, this characteristic should be included to capture better a congressmen quality and capacity. The definition of the measures considered are the following:

COMMITTEESEN_{it}: Share of senators holding the presidency of a committee for province *i* in year *t* in percentage term.

COMMITTEEHOU_{it}: Share of deputies president of a committee for province *i* in year *t* in percentage term.

Since the most important committees for the budget process are the *Appropriations Committee* in each chamber, we include in our estimations the following two variables:

APPROPRIATIONSEN_{it}: Dummy variable that takes the value 1 for the president of the Appropriations Committee in the Senate and zero, otherwise, for province *i* in year *t*.

APPROPRIATIONHOU_{it}: Dummy variable that takes the value 1 for the president of the Appropriations Committee in the House and zero, otherwise, for province *i* in year *t*.

Fourthly, we also include four variables that attempt to reflect the influence of parties, the president and governors. It is expected that the incumbent party exerts its influence by directing more funds to provinces whose governors have the same party affiliation of the President. In the same line of reasoning, we conjecture that the electoral strategy of presidents (and incumbent parties) usually include a disproportionate allocation of federal funds to his/her home province and to provinces where the difference with the major rival party is larger in order to preserve its leadership or shorten the rival's advantage. Likewise, we expect that the influence of governors on the budget funds is greater when two of the three senators representing the province belong to his/her party. The definitions of this group of variables are the following.

SAMEPARTY_{it}: Dummy variable that takes the value 1 when the governor has the same political affiliation as the president or it is political allied and zero otherwise for province *i* in year *t*.

*PRESIDENT*_{it}: Dummy variable that takes the value 1 for the president home province and zero otherwise for province *i* in year *t*.

*VOTES*_{it}: difference (in percentage terms) between the votes obtained by the president's incumbent party and the main rival party in presidential and representatives elections in province *i* in year *t*.

*ALIGNMENT*_{it}: Alignment between the senator and the governor. This is a dummy variable equal to one when the party affiliation of the governor and two of the senators (representing the majority) of the district are the same and zero otherwise for province *i* in year *t*.

Finally, we control for socio economic variables. As noted by Levitt and Snyder (1995) it is not easy to define the set of control variables and failing to include the appropriate controls, may result in overstating the importance of the other explanatory variables. The empirical literature that analyzes the U.S. evidence usually includes the most obvious controls: state income and population as well as some variables that try to capture the role of minority groups (i.e. Afro-American, native American) and elderly. For case of Argentina, in the period 1996- 2004, we consider the proper set of controls including the size of the economy (province GDP), the population of the province, the unemployment rate and the populations of the district under the poverty line and the phase of the business cycle that the economy is experiencing. Emergent economies like Argentina have procyclical fiscal policies: expenditure grows strongly during expansions and falls abruptly when recessions come.

*GDP*_{it}: Gross domestic product for province *i* in year *t*.

*POP*_{it}: Population of province *i* in year *t*.

*UNEMP*_{it}: Average unemployment rate in the year when the budget is discussed, for province *i* in year *t*.

*POVERTY*_{it}: Percentage of the population under the poverty line in province *i* in year *t* (the year the budget is discussed).

*CYCLE*_{it}: Rate of growth of the Gross Domestic Product of the country in year *t*.

V. Empirical Results

Results for our basic specifications are presented in Tables 4, 5 and 6. We have experimented various functional specifications and our findings are quite robust. Since our models try to capture the rigidity of the budget by including the lagged dependent variable as an explanatory variable, we estimate using the dynamic panel technique developed by Arellano and Bond.

V.1. The determinants of Real Per Capita Total Budget

Table 4 contains the estimations for the Real per capita Total Budget. The first column includes only the socio economic variables used as control variables; column II displays the performance of all variables except for those capturing the role of the President, the parties and the governors, while column III includes the whole set of explanatory variables. As expected, the coefficient of the lagged dependent variable is statistically significant but surprisingly, the sign of the coefficient of the lagged dependent variable is negative indicating the existing of some compensating mechanism from year to another. The main determinants of the total budget allocation are the overrepresentation variables. The elasticity of per capita Total Budget with respect congressmen per capita is 0.74 indicating that each province receives 74 cents per inhabitant for additional member of the House. Unpredictably, the elasticity of total budget per capita with respect to senators per capita is -0.39, indicating underrepresentation instead of the expected overrepresentation. This result could be interpreted as an indicator of the weakness of the Congress to influence the allocation of the federal money since the Senate is the chamber where overrepresentation is strongest. It seems that this feature plays a more relevant role in the distribution of transfers across provinces as shown by Porto and Sanguinetti (2001) than in the allocation of federal outlays.

Except for the chair of the Appropriations Committee of the Senate, the rest of the variables designed to capture the importance of Congress fail. Neither the chairs of committees nor the seniority of some qualified members serve to attract funds to their home provinces. Similar conclusions can be drawn from the performance of the variables that represent the importance of the Executive Power, the Incumbent Party and the Governors which resulted, without exceptions, non significant at usual levels of confidence. From the set of control variables included, only Population and Poverty performed well.

Table 4. **Explaining Real Per Capita Total Budget across provinces. 1996- 2004**

Variable	I	II	III
Log <i>PCTE</i> (t-1)	-0.25*** (-1.91)	-0.26*** (-1.92)	-0.26*** (-1.80)
Log <i>OVERREPESEN</i>	-0.37** (-2.32)	-0.38* (-2.56)	-0.39* (-3.19)
Log <i>OVERREPHOU</i>	0.58*** (1.62)	0.79** (2.35)	0.74*** (2.33)
COMMITTEESSEN		0.005 (1.30)	0.004 (1.33)
COMMITTEEHOU		0.003 (0.92)	0.004 (1.17)
APPROPRIATIONSEN		0.05*** (1.90)	0.04*** (1.62)
APPROPRIATIONHOU		-0.02 (-0.33)	-0.01 (-0.17)
SENATE		0.003 (1.44)	0.004*** (1.68)
HOUSE		-0.001 (-0.23)	-0.002 (-0.35)
ALIGNMENT			0.03 (1.34)
PRESIDENT			0.06 (1.20)
SAMEPARTY			-0.0006 (-0.04)
VOTES			0.00008 (0.36)
GDP	-0.002 (-0.20)	-0.004 (-0.76)	-0.0009 (-0.22)
CYCLE	0.001 (1.53)	0.001 (1.39)	0.001 (1.21)
POP	0.13 (1.05)	0.12 (1.06)	0.19*** (1.65)
POVERTY	-0.005* (-4.05)	-0.005* (-3.93)	-0.006* (-5.15)
UNEMP	-0.001 (-0.57)	-0.002 (-0.80)	-0.002 (-0.60)
Constant	-0.003 (-0.47)	-0.002 (-0.26)	-0.002 (-0.32)
Observations	161	161	161
Number of Groups	23	23	23
Min number of observations	7	7	7
F Statistic	F(8, 152)= 11.66	F(14, 146)= 12.70	F(18, 142)= 56.81
Arellano-Bond test that average autocovariance in residuals of order 1 is 0: H0: no autocorrelation	z = -2.96 Pr > z = 0.0031	z = -2.96 Pr > z = 0.0031	z = -3.08 Pr > z = 0.0021
Arellano-Bond test that average autocovariance in residuals of order 2 is 0: H0: no autocorrelation	z = 1.72 Pr > z = 0.0860	z = 1.80 Pr > z = 0.0725	z = 2.12 Pr > z = 0.0338

Note: Robust t statistics in parenthesis. * significant at 1%. ** significant at 5%. *** significant at 10%.

V.2. The determinants of Real Per Capita Capital Expenditures

As we move from the total aggregate to the main flexible item, the Capital Expenditure, the overrepresentation variables turn out to be not significant at usual statistical levels and the ones capturing the importance of the President, the Governors and the incumbent Party gain ground. Likewise, congressional variables have only a limited and weak impact on the distribution of federal outlays. The results portrayed in Table 5, column IV, supports the our conjectures. The most important determinants of the federal funds distribution amongst provinces are related to the action of the Executive Power and the Governors. The Budget prepared by the Executive devoted abundant resources to the presidents' home provinces (*PRESIDENT* variable), to the provinces whose governor has their same party affiliation as the President (*SAMEPARTY* variable) and to the districts where they get the higher difference at the polls with the main rival party (*VOTES* variable). The alignment of the Governor and the majority of their senators of their province (*ALIGNMENT* variable) also results significant. It is worth noting that the *SAMEPARTY* variable can also be interpreted as one belonging to the theories emphasizing the party strength in the budget process. The only congressional variables that show statistically significant behavior are *APPROPRIATIONSEN* (Appropriation Committee of the Senate) and *SENATE* (share of senior members of the senate). Clearly, quality matters. Provinces represented by senior members and holding the chair of the Appropriations Committee have an advantage over jurisdictions with less qualified senators.

The significance of the lagged dependent variable in all four models shows that there is a great deal of inertia in the budget process. The elasticity of the per capita capital expenditure respect to the previous year allocation is 0.26. Except for the GDP and the Cycle, the control variables do not perform well. The province population, the unemployment rate and the percentage of population below the poverty line do not attract capital expenditures (in per capita terms). Bigger economies (measured by GDP) receive proportionally more money than the smaller provinces. Moreover, since the model is logarithmic, it is easily seen that the elasticity of the growth rate of per capita capital expenditure with respect to GDP is greater than 1. The sign of the business cycle variable (*CYCLE*) denotes that per capita capital expenditures are sensitive to expansions and recessions.

Table 5. Explaining Real Per Capita Capital Expenditures across provinces. 1996- 2004

Variable	I	II	III	IV
Log PCCE (t-1)	0.47** (2.30)	0.40** (1.99)	0.39** (2.25)	0.28*** (1.80)
Log <i>OVERREPSEN</i>		0.03 (0.25)		0.09 (0.58)
Log <i>OVERREPHOU</i>		0.41 (0.67)		0.18 (0.36)
COMMITTEESSEN		0.006 (0.85)		0.005 (1.37)
COMMITTEEHOU		0.0008 (0.16)		0.002 (0.32)
APPROPRIATIONSEN		0.19** (2.19)		0.19** (2.53)
APPROPRIATIONHOU		-0.06 (-0.69)		-0.04 (-0.58)
SENATE		0.004 (1.18)		0.005*** (1.65)
HOUSE		-0.002 (-0.29)		-0.0008 (-0.11)
ALIGNMENT			0.05*** (1.76)	0.06*** (1.91)
PRESIDENT			0.15* (4.35)	0.16* (4.54)
SAMEPARTY			0.06* (3.67)	0.07* (3.84)
VOTES			0.0006 (1.40)	0.001** (2.31)
GDP	1.09** (2.26)	1.09** (2.08)	1.12* (2.88)	1.03* (2.78)
CYCLE	0.010* (5.44)	0.009* (5.37)	0.008* (4.97)	0.008* (4.92)
POP	-1.09 (-0.40)	-0.22 (-0.08)	-1.32 (-0.55)	-1.43 (-0.67)
POVERTY	0.003 (1.07)	0.003 (0.77)	0.0009 (0.35)	-0.0008 (-0.32)
UNEMP	-0.006 (-0.87)	-0.007 (-0.97)	-0.003 (-0.55)	-0.004 (-0.68)
Constant	0.12 (0.59)	0.007 (0.37)	0.02 (1.05)	0.02 (1.35)
Observations	161	161	161	161
Number of Groups	23	23	23	23
Min number of observations	7	7	7	7
F Statistic	F(6, 154)= 32.04	F(14, 146)= 45.28	F(10, 150)= 49.72	F(18, 142)= 306.26
Arellano-Bond test that average autocovariance in residuals of order 1 is 0: H0: no autocorrelation	z = -3.90 Pr > z = 0.0001	z = -3.73 Pr > z = 0.0002	z = -3.68 Pr > z = 0.0002	z = -3.69 Pr > z = 0.0002
Arellano-Bond test that average autocovariance in residuals of order 2 is 0: H0: no autocorrelation	z = 2.15 Pr > z = 0.0312	z = 1.93 Pr > z = 0.0541	z = 2.75 Pr > z = 0.006	z = 2.84 Pr > z = 0.0045

Note: Robust t statistics in parenthesis. * significant at 1%. ** significant at 5%. *** significant at 10%

V.3. The determinants of Real Per Capita Direct Investment

Table 6 displays the determinants of real per capital Direct Investment¹⁰. There are some coincidence with the results show in Tables 4 and 5 but also some important differences. Again, the lagged dependent variable is significant but its sign is negative as in per capita Total Budget regressions, indicating some sort of compensation for those provinces receiving less funds the past year. As in Table 5, the variables representing the role of the President (PRESIDENT and VOTES) and Governors (ALIGNEMENT) in budget allocation are significant at 1% and 5% respectively, but the variable standing for the incumbent party influence, SAMEPARTY, is not significant. Unlike Table 4, the OVEREPHOU variables shows an underrepresentation effect while OVERREPSSEN is not significant. This result reinforces previous mentioned findings: the Congress participation in the allocation of federal funds is neglectively. As in Tables 4 and 5, Congressional variables show a weak link with the dependent variable. The only indicator that displays a significant performance is COMMITTEESSEN.

¹⁰ Note that in Table 6 variables were not transformed to logarithm since that functional form delivers second order autocorrelation at significant levels which gives inconsistent parameters

Table 6. Explaining Real Per Capita Direct Investment across provinces. 1996- 2004

Variable	I	II	III
PCCI (t-1)	-0.13*** (-1.78)	-0.19** (-2.39)	-0.15** (-1.96)
<i>OVERREPSEN</i>	-142.55 (-1.49)		-126.79 (-1.45)
<i>OVERREPHOU</i>	-161.74* (-3.57)		-174.59* (-4.16)
COMMITTEESSEN	7.50 (0.89)	9.13 (1.06)	7.55 (0.90)
COMMITTEEHOU	8.91** (1.91)	6.07 (1.47)	8.88** (1.95)
APPROPRIATIONSEN		-27.73 (-1.00)	-41.22 (-1.35)
APPROPRIATIONHOU		-18.87 (-0.99)	-12.67 (-0.62)
SENATE	0.005 (0.00)	-0.92 (-0.44)	0.18 (0.14)
HOUSE	-7.99 (-1.45)	-7.68 (-1.47)	-7.59 (-1.48)
ALIGNMENT	50.63** (2.07)	24.66 (1.37)	49.30** (2.13)
PRESIDENT	134.28* (3.43)	129.26* (2.97)	136.29* (3.52)
SAMEPARTY	10.37 (1.09)	19.31 (1.33)	10.09 (1.01)
VOTES	1.22* (4.61)	1.31* (3.22)	1.24* (4.66)
GDP	1.54 (0.23)	1.87 (0.26)	2.07 (0.32)
CYCLE	3.62* (3.56)	3.47* (3.70)	3.69* (3.50)
POP	350.61 (4.54)	191.23 (1.52)	363.54* (4.71)
POVERTY	-0.94 (-0.54)	-0.85 (-0.49)	-0.99 (-0.56)
UNEMP	2.23 (1.16)	2.00 (0.86)	2.33 (1.22)
Constant	-9.87** (-2.28)	-1.27 (-0.23)	-10.29** (-2.45)
Observations	161	161	161
Number of Groups	23	23	23
Min number of observations	7	7	7
F Statistic	F(16, 144)= 101.92	F(16, 144)= 67.82	F(18, 142)= 129.51
Arellano-Bond test that average autocovariance in residuals of order 1 is 0: H0: no autocorrelation	z = -1.63 Pr > z = 0.1037	z = -1.67 Pr > z = 0.0958	z = -1.66 Pr > z = 0.0978
Arellano-Bond test that average autocovariance in residuals of order 2 is 0: H0: no autocorrelation	z = -2.05 Pr > z = 0.0407	z = -2.23 Pr > z = 0.0257	z = -2.11 Pr > z = 0.0346

Note: Robust t statistics in parenthesis. * significant at 1%. ** significant at 5%. *** significant at 10%

VI. Concluding Remarks

This study sheds light on the relevance of the Argentine political institutions, particularly the Congress via an analysis of the budget process. Previous descriptive analysis of the Argentine Legislative Power have conjectured that, unlike the US Congress, it only plays a weak role in the determination of key policies, particularly the distribution of funds of the national budget. As note by Abuelafia et al. (2005), the Executive, by exerting its political power at the implementation phase, inhibits the Congress participation in the distribution of budgets expenditures. Moreover, Jones et. al (2000) point out the weakness of the republican system in Argentina where the Legislative Branch lacks enough power and professionalism to influence the other decision players.

Our results and estimations confirm the presumption of those papers. The distribution of the national budget amongst provinces are mainly dominated by the action of the Executive and the governors. Presidents favor their home provinces, the districts where they get the higher difference with the main rival parties and provinces administered by governors affiliated to their same party. Additionally the importance of the lagged dependent variable in all three specifications supports the choice of the Arellano-Bond method of estimation.

On the other hand, unlike some findings for the U.S., neither the overrepresentation variables nor the congressional theories find support in our sample. The only congressional indicator with usual levels of significance is the Chair of the Appropriations Committee of the Senate.

The disparity observed in the allocation of the federal funds among districts in the country cannot be analyzed using the same factors observed in studies examining the U.S case. Specifically, a distinctive characteristic of the Argentinean Legislative Power is the lack of professionalism found in the committees. As point out by Spiller and Tommasi (2005), Argentinean legislators serve, on average, on five committees. In contrast, in Chile and Uruguay, each legislator serves only on one committee. Furthermore, since the turn over of the legislative seats is much greater than in other countries, the members do not specialize and the committee tend to be less efficient than it could be otherwise.

Our findings reinforce the idea that a different framework is needed for analyzing the case for an emergent democracy due to the special features of its Congress and how the relevant

actors interact with each other. The understanding of these mechanisms are central in a federal Republic where the distribution issue is a complex process.

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Appendix

Data Sources

- Data on the National Budget were taken from the Oficina Nacional de Presupuesto, Ministerio de Economía de la Nación.
- Political variables such as Congress members, committees authorities and seniority were gathered from Directorio Legislativo of CIPPEC, Directorio Legislativo of Fundación Karakachoff and Argentine Congress.
- Electoral results, governor's political affiliations and election dates were obtained from Ministerio del Interior and Guía Electoral web site (www.guiaelectoral.com.ar).
- The socioeconomic variables, unemployment, poverty line and population came from INDEC.
- Provincial GDP were taken from the Universidad Nacional de La Plata compilation. www.depeco.econo.unlp.edu.ar

Descriptive Statistics

Real per capita *Total Budget*. 1997 - 2004

Provinces	1997	1998	1999	2000	2001	2002	2003	2004
Advanced	1041.2	1165.7	1138.7	1026.0	1358.9	920.6	933.7	944.4
Intermediate	1012.9	1519.7	1478.9	1259.9	1753.3	1072.9	1007.2	1047.1
Low density	1460.6	1548.9	1444.4	1383.7	1615.6	1106.9	1118.1	1231.9
Poor	1209.8	1527.4	1432.4	1564.9	1822.3	1231.5	1118.7	1226.9

Real per capita *Capital Expenditures*. 1997 - 2004

Provinces	1997	1998	1999	2000	2001	2002	2003	2004
Advanced	97.7	90.4	79.2	72.1	71.6	46.1	49.6	66.6
Intermediate	184.5	163.0	167.3	130.4	130.6	80.9	69.9	84.3
Low density	291.2	301.7	256.2	229.1	233.8	139.0	173.0	228.3
Poor	229.8	227.3	220.6	217.7	193.2	113.8	100.7	143.2

Real per capita *Direct Investment*. 1997 - 2004

Provinces	1997	1998	1999	2000	2001	2002	2003	2004
Advanced	13.8	27.9	11.6	7.1	7.9	6.6	12.6	22.8
Intermediate	36.8	108.5	32.5	18.5	15.4	9.9	13.4	17.5
Low density	79.1	207.6	66.3	44.1	43.8	31.0	32.5	79.0
Poor	53.8	131.4	75.9	58.5	60.4	36.7	31.3	53.9

Descriptive Statistics

Variable	Observations	Mean	Std. Dev	Min	Max
PCTE	207	1553.646	1210.305	561.5599	11642.77
PCCE	207	196.6348	169.8028	29.33949	1446.378
PCDI	207	60.56001	96.42177	1.143301	942.4429
OVERREPHOU	207	1.210506	.9744692	.4922691	5.971134
OVERREPESEN	207	.6094918	.6452734	.0210972	3.58268
COMMITTEEHOU	207	4.347826	7.490767	0	43.58974
COMMITTEESEN	207	4.347826	2.284571	0	12.5
APPROPRIATIONSEN	207	.0434783	.2044255	0	1
APPROPRIATIONHOU	207	.0386473	.1932203	0	1
HOUSE	207	4.35229	8.037814	0	45.45454
SENATE	207	4.371981	3.517866	0	15
VOTES	207	-.0628753	23.91162	-86.1087	71.59772
PRESIDENT	207	.0338164	.1811946	0	1
SAMEPARTY	207	.5652174	.4969302	0	1
ALIGNMENT	207	.763285	.4260963	0	1
GDP	207	8.072295	17.72242	.7038051	95.9373
POP	207	1.438913	2.728455	.0837362	14.21986
UNEMP	207	12.65741	4.394074	1.9	23
CYCLE	207	.5555556	.4981086	0	1
POVERTY	207	41.21132	14.77928	11.39998	73.5

Covariance Matrix

	PCTE	PCCE	PCDI	VOTES	UNEMP	GDP	POP	OVERREP HOU	OVERREP SEN	COMMITTE EHO	COMMITTE ESEN	APPROPRIATI ONHOUN	APPROPRIATI ONSEN	PRESID ENT	SAMEP ARTY	ALIGN MENT	HOUSE	SENATE	CYCLE	POVERTY
PCTE	1.0000																			
PCCE	0.6933	1.0000																		
PCDI	0.3829	0.8062	1.0000																	
VOTES	0.2400	0.4577	0.4221	1.0000																
UNEMP	-0.1867	-0.4128	-0.3057	-0.2388	1.0000															
GDP	-0.1630	-0.2038	-0.1569	-0.0163	0.3253	1.0000														
POP	-0.2064	-0.2595	-0.1906	-0.0366	0.3561	0.9885	1.0000													
OVERREPHOU	0.8398	0.7320	0.3686	0.2579	-0.2776	-0.2277	-0.2787	1.0000												
OVERREPSEN	0.8087	0.7523	0.3990	0.2511	-0.3312	-0.2816	-0.3351	0.9840	1.0000											
COMMITTEHOU	-0.1928	-0.2106	-0.1427	-0.0681	0.2864	0.9142	0.9090	-0.2471	-0.2938	1.0000										
COMMITTESEN	-0.0942	0.1034	0.2176	0.0670	-0.1352	-0.0332	-0.0271	-0.1097	-0.0525	-0.0154	1.0000									
APPROPRIATIONSEN	0.0030	0.1403	0.0799	0.0140	-0.0138	-0.0488	-0.0648	0.0652	0.1032	-0.0558	0.1874	1.0000								
APPROPRIATIONHOUN	-0.0532	-0.0790	-0.0496	-0.0228	0.1225	0.0441	0.0308	-0.0748	-0.0909	0.0632	0.1105	0.0802	1.0000							
PRESIDENT	0.1991	0.4141	0.4508	0.3386	-0.1391	0.0472	0.0526	0.1220	0.1329	0.0079	0.2778	-0.0399	-0.0375	1.0000						
SAMEPARTY	-0.1070	0.0186	0.1115	0.0100	-0.1148	0.0832	0.0934	-0.1037	-0.0921	0.0737	0.1056	0.0914	0.1253	0.1641	1.0000					
ALIGNMENT	0.0342	0.0859	0.0918	0.0485	-0.1045	0.1430	0.1169	0.0372	0.0951	0.0566	0.1968	0.1187	-0.0652	0.1042	0.1535	1.0000				
HOUSE	-0.1849	-0.2128	-0.1609	-0.0205	0.3145	0.9704	0.9713	-0.2386	-0.2867	0.8895	0.0051	-0.0235	0.0565	0.0409	0.0974	0.1642	1.0000			
SENATE	-0.0524	-0.0560	0.0127	-0.1090	0.0799	0.1860	0.2041	-0.1847	-0.1642	0.1435	0.0980	0.1433	-0.1343	0.2410	0.1004	0.0405	0.1410	1.0000		
CYCLE	0.0045	0.2177	0.2636	0.2941	-0.2475	0.0103	-0.0027	0.0137	0.0146	-0.0000	-0.0000	0.0000	0.0280	0.0598	0.1373	0.0508	0.0005	0.0062	1.0000	
POVERTY	-0.4756	-0.5006	-0.2917	-0.3107	0.3318	-0.1439	-0.0524	-0.4929	-0.4639	-0.0412	0.0214	-0.1024	-0.0165	-0.1056	0.1117	-0.0972	-0.0934	0.0801	-0.0805	1.0000