

The Political Economy of US Aid to Pakistan

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Abstract

Variations of bilateral aid flows are difficult to explain on the basis of official development objectives or recipient need. Based on the example of US aid to Pakistan, this paper suggests alternative political economic explanations, notably the relevance of ethnic lobbying and the relevance of US business interests. Time series regressions for the period from 1980 to 2002 and logistic regressions based on votes for the Pressler and the Brown Amendment confirm the significance of these political economic determinants. While in case of the Pressler Amendment, the direct influence of population groups of Indian and Pakistani origins seems to have played a predominant role, the role of ethnic business lobbies appears to have dominated in the context of the Brown Amendment. Time series analysis also provides some evidence for the impact of US business interests based on FDI and exports, but these effects appear to be comparatively small.

1. Introduction

A growing amount of literature in political economy suggests that development aid is determined by the economic and political interests of powerful interest groups within donor countries. However, the in-depth analysis of aid-related political decision-making processes is so far limited to theoretical modeling (Lahiri and Raimondos-Møller, 1997, 2000; Mayer and Raimondos-Møller, 2003). This paper is the first to test the idea presented in Lahiri and Raimondos-Møller (2000) that foreign aid allocation between competing recipients is influenced by the lobbying power of ethnic recipient groups within a donor country. It goes beyond the anecdotal evidence presented by Lahiri and Raimondos-Møller (2000) on Israeli lobby groups in the US, Indian lobby groups in the UK, Turkish lobby groups in Germany etc., and presents a comprehensive econometric analysis based on the example of US aid to Pakistan from 1980–2002. In addition, as suggested by much of the empirical literature on the geographical distribution of aid (among the more recent studies, see Alesina and Dollar, 2000; Berthélemy and Tichit, 2004), the donor country's business interests abroad are taken into account. The analysis is based on (i) the total amount of US aid given to Pakistan, and (ii) congressional votes on two amendments related to aid to Pakistan. The latter benefits from earlier work on congressional voting related to trade policies, in particular Coughlin (1985), Tosini and Tower (1987), Baldwin and Magee (2000), and Gawande et al. (2004).

Throughout the paper, Pakistani lobbying power in the US is related to Indian lobbying power. Potential competition for a given regional aid budget and general political rivalry as prevalent in the past motivate this joint analysis. Anecdotal evidence on the fight between the “south Asian rivals” in Senatorial elections, reports about the US-India Political Action Committee's (USINPAC) campaigns against aid to

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Pakistan, and the Pakistani complaint against such behavior (Anonymous, 2003; Morgan and Merida, 1997; USINPAC, 2003) also suggest a close relationship between the two groups.

The study is divided into four sections. Section 2 provides a brief overview of the development of aid flows to Pakistan during the last decades, and clarifies the role of the US as the major bilateral donor. In section 3, hypotheses about determinants of political decision making are presented and tested econometrically, on the basis of data on the voting behavior of individual members of the Senate, as well as on the available time series observations on aid volumes. Conclusions are presented in section 4.

2. Aid Flows to Pakistan: The Evidence

Pakistan belongs to the developing countries most heavily depending on foreign aid after independence. According to data provided on official development assistance (ODA) by the OECD's Development Assistance Committee (DAC), a total amount of US\$73.14 billion (bilateral and multilateral aid, at constant 2001 prices) was disbursed to Pakistan from 1960 to 2002. The data in Table 1 shows the different sources of these resources. More than 72% of official development assistance comes from bilateral sources, and nearly half of this is provided by a single bilateral donor, namely the US. Therefore, over the period as a whole, the US clearly appears as the major contributor. This is true despite the fact that for the period of 1990–98 US aid was almost negligible. During this period, Japan emerged as the most relevant bilateral donor, whose funding partly made up for the missing flows of US aid. Considered over the whole period from 1960–2002, Japanese and US aid resources combined amounted to over 66% of total bilateral ODA to Pakistan.

Even though partly offset by contributions from Japan, the irregular contributions of the US as the major bilateral donor led to considerable shifts in Pakistani aid receipts. The major reasons for changes in US contributions were the passage of the Pressler Amendment and the Brown Amendment in the aid authorization bills by

Table 1. Gross Disbursement of ODA to Pakistan, 1960–2002

<i>Total</i>	<i>73,143.65</i>	<i>100%</i>
1. Multilateral ODA	20,328.84	27.79% (of total ODA)
2. Bilateral ODA	52,814.81	72.21% (of total ODA)
<i>(of which)</i>		
Non DAC	4,299.43	8.14% (of bilateral ODA)
DAC	48,515.38	91.86%
<i>(of which)</i>		<i>% of DAC ODA</i>
Canada	2,561.90	5.28
France	960.56	1.98
Germany	5,470.90	11.27
Netherlands	1,093.88	2.25
Japan	10,178.34	20.97
UK	3,890.45	8.01
USA	21,864.86	45.06
Others	2,494.49	5.14

Note: 2001 prices—US\$ Millions.

Source: OECD/DAC (2004, Table 2a).

the US Senate in 1985 and 1995, respectively. The Pressler Amendment requested the US President to personally certify that there would be no risk of nuclear arms development in Pakistan, and without this certification, no more aid could be committed to this country. The presidential certification was no longer provided after 1989, and consequently US aid disbursement to Pakistan, which was as high as US\$452 million in 1989, fell during the early 1990s and touched the bottom at only US\$5.4 million in 1998. However, in 1995, the passage of the Brown Amendment lifted the clauses of the Pressler Amendment referring to development assistance and ended the legal binding of aid flows to the presidential certification. New aid commitments were made and—somewhat ironically—turned into the first noticeable disbursements just after the atomic explosions by Pakistan in May 1998. Disbursements then went up to US\$77.8 million in 1999 and, further, to US\$101.4 million in 2000. One year later, the aid volume increased to 7 times as much and reached US\$776.5 million. Most of this US aid was disbursed in the framework of the Economic Support Fund as a reaction to September 11th. While disbursements fell to US\$208 million once again in 2002, the US President announced another US\$3 billion five-year economic assistance package for Pakistan in June 2003.

It is obvious that more than pure development considerations drive US aid to Pakistan, and thereby, to a large extent, the overall bilateral aid received by this country. The development of aid flows before and after the atomic explosions casts some doubts even about the relevance of the officially stated political motives for foreign aid. In the following section, the US-Pakistan aid relations will therefore be investigated in the framework of a Public Choice approach, analyzing the determinants of the political decision-making process in the US. Unfortunately, geopolitical interests that must be expected to be highly influential are difficult to capture in the empirical analysis with meaningful indicators. Therefore, the focus will be on ethnic and business interests, for which information can be collected in a more systematic way.

3. The Political Economy of Aid Flows to Pakistan

This section draws largely from Lahiri and Raimondos-Møller's (2000) theoretical paper on ethnic lobbying with respect to aid as well as from studies on the political economy of US decision making on trade policy. It is assumed that politicians are maximizing political support by considering positions of different groups in the population, while attributing weights to their economic power and political influence, as well as to the strength of their interest. If overall political support is conceived as an additive function of support for various mutually independent policy measures, maximizing overall political support is equivalent to maximizing support for each individual measure. Under this assumption, we can consider decision making on aid within the same theoretical framework as we would consider decision making on trade or other major policy issues such as employment, education, etc.

In the following, we will discuss which particular groups should be taken into account when considering political decision making on US aid to Pakistan. On this basis, we will derive hypotheses on factors increasing or decreasing the influence of these groups, thereby changing the weights in the political support function and—potentially—the overall outcome of the decision-making process. These hypotheses will then be tested empirically in different ways: first, through a time series regression of aid resources allotted to Pakistan over time, and second, through a logistic regression of congressional decision making with respect to the two most decisive amendments on

US foreign aid to Pakistan, the Pressler Amendment in 1985 and the Brown Amendment in 1995.

Incentives for Decision Making: Some Theoretical Hypotheses

Given the cultural ties to their home country, family relations and economic linkages, expatriates in donor countries can be expected to care about aid inflows to their countries of origin (Lahiri and Raimondos-Møller, 2000). Therefore, Pakistanis in the US can be expected to favor any policy decision leading to increased development assistance. At the same time, as far as aid to Pakistan and to the neighboring country India must be considered as substitutes, Indians in the US might oppose such decisions. Moreover, India and Pakistan being long-term political rivals, political decisions favoring Pakistan may also face some general opposition by Indians and vice versa.¹

Having identified two major population groups potentially interfering with decision making on aid to Pakistan, we also need to discuss under which conditions their interest will be given more or less weight in the politicians' political support function. As the most direct political support arises through voting, the numbers of US citizens of Pakistani origin on the one hand, and of Indian origin on the other hand, should play a relevant role. Smith (2000) provides some general evidence about how ethnic groups influence US foreign policy through their voting power. We can summarize this discussion in an initial testable hypothesis.

HYPOTHESIS 1. US aid to Pakistan is positively related to the number of Pakistanis living in the country and negatively related to the number of Indians.

Moreover, as influence can be exerted through lobbying as well, Pakistanis and Indians living in the US could also play an important role by influencing other voters. Their influence can be considered to be particularly high when they play a relevant role in the economy, e.g., when they own many firms, make high profits and employ many employees. High profits also allow ethnic lobbies to support politicians through campaign contributions. Campaign contributions are the central factor considered in Lahiri and Raimondos-Møller's (2000) model. If a lobby's potential to provide campaign contributions, or its potential to directly influence people's votes, rises due to a higher number of interested firms, higher profits and/or an increased number of employees, policy makers can be expected to increase the weight given to this group. Baldwin and Magee (2000) empirically tested lobbies' influence along these lines on US trade policy and found it significant. This leads us to the formulation of our second hypothesis.

HYPOTHESIS 2. US aid to Pakistan will tend to rise when the economic power of Pakistani firms in the US increases, while it will tend to decrease with the economic power of Indian firms.

Evidence from trade policy further suggests that besides domestic ethnic groups, lobbies from abroad may also interfere with political decision making in the US (Gawande et al., 2004). According to US law, any lobby registered in the US is permitted to lobby for the interests of a foreign principal. It is often reported that foreign governments and foreign business groups provide campaign contributions through their agents in the US to buy policy in their favor (Kim 1999). Gawande et al. (2004) show that in the context of trade policy, the impact of such foreign lobbies is

significant. Assuming a similar relationship in the case of aid, we can formulate our third hypothesis.

HYPOTHESIS 3. Any lobbying expenses made by Pakistani government and non-government lobbies will be positively related to aid flows to Pakistan, and lobbying expenses made by Indian lobbies will be negatively related to aid to Pakistan.

So far, we have only considered ethnic lobby groups, both domestic and foreign. However, there are also powerful US business groups with economic interests related to foreign direct investment (FDI) in developing economies such as Pakistan and India. These interest groups would like to ensure a high profitability of their investment, as compared to alternative investment possibilities (Schneider and Frey, 1985). For this purpose, they strive for more foreign aid to these economies, so that foreign aid can build the physical, social, and educational infrastructure necessary for profitable economic activity (Harms and Lutz, 2006). As already pointed out by Maizels and Nissanke (1984) aid to such countries would, in fact, constitute an external subsidy to ensure the continuing profitability of the foreign investment of enterprises of the donor country. Thus, foreign aid activity should be positively linked with the lobbying effort of these business groups and FDI from the US. The higher the investment, the stronger should be their interest and the higher should be the weights they obtain in the political support function politicians attempt to maximize.

Politicians providing aid to Pakistan can expect to be rewarded in the form of campaign finance by firms involved in FDI in Pakistan. At the same time, again, if overall aid for the region is fixed, competition will arise between those favoring aid to Pakistan and those favoring aid to India. Moreover, investors in India might fear that strengthening Pakistan through inflows of development assistance could deteriorate the geopolitical conditions. It is therefore conceivable that firms with FDI in India might oppose aid to Pakistan. This leads us to the formulation of Hypothesis 4.

HYPOTHESIS 4. US aid to Pakistan is positively related to FDI of US firms in Pakistan while it is negatively related to FDI of US firms in India.

Another factor which can influence legislators while formulating aid policy can be the business lobbies' export interest towards these economies. Foreign aid is often regarded as a means to establish a close business relationship, thereby encouraging imports from the donor country, rather than from any competing exporter. Moreover, government negotiations fuelled by aid funds can also be the source of lower tariffs, which lead to enhanced exports from these donors (Lahiri and Raimondos-Møller, 1997; Morrissey, 1996). In order to maximize their profits, trade lobbies push the policy makers to give more aid to those economies which constitute a relevant market for their exports. In return, the legislators get more political support and funds for their campaigns in the next elections.

Assuming that the pressure for export promotion via aid depends upon the interest in a particular export market, which in turn is proportional to current exports, and assuming that again, we have a certain competition between India and Pakistan, we can formulate Hypothesis 5.

HYPOTHESIS 5. US aid to Pakistan is positively related to US exports to Pakistan while it is negatively related to US exports to India.

Looking at the decision making by each individual legislator, there are some additional factors which may affect the utility function of the representatives. While they do not provide a concrete explanation of the policies at hand, they are relevant control variables and therefore need to be taken into account. In US trade policy studies, the most commonly used factor is party affiliation (Hersch and McDougall, 2000). Generally, it is anticipated that the representatives vote in party line. Peltzman (1984) considers parties as interest groups which affect voting behavior in a similar way as other interest groups. Coughlin (1985) clarifies that legislators vote in party line because they will be rewarded for their party loyalty in the future. In particular, they will be nominated for relevant committees and will be given various important assignments. In this way, they can use their position for future re-election and political and economic gains. Although no ideological position predefines the party lines in the case of aid to Pakistan, it is anticipated that some distinct party positions will emerge and that legislators will orient their votes along these positions once they are fixed. This leads us to the formulation of our last hypothesis.

HYPOTHESIS 6. *For both the Pressler and the Brown Amendment, US senators can be expected to vote in party line.*

Overall, we retain the influence of domestic and foreign ethnic groups, the relevance of US economic interests, and legislators' party affiliation as potential determinants of decision making on US aid to Pakistan.

Empirical Analysis of US Aid to Pakistan Over Time

In order to empirically test these hypotheses, this section provides an initial analysis of the determinants of aid flows over time. Since, for many relevant variables, data is available only from the 1980s onwards, we are constrained to limiting our empirical investigation to the period from 1980 to 2002. This leaves us with a rather short annual time series of only 23 observations and limits the scope of in-depth econometric analysis. Moreover, it should be noted that the discussion in this section can only refer to those hypotheses which are not related to decision making by individual legislators. Empirical analysis on the basis of a greater data set of individual legislators' decisions on specific aid bills will be discussed in the subsequent section.

To explain the development of US aid to Pakistan over time, we use the data on gross disbursements of ODA (in '000 US\$ at constant 2001 prices) (*usaid*) provided in OECD/DAC (2004). Disbursements rather than commitments reflect the actual spending of aid funds, and gross as opposed to net ODA avoids the consideration of debt repayments which are carried out under the authority of the recipient rather than the donor country.

In order to check the impact of ethnic groups as suggested by Hypotheses 1 to 3, we require information on the relative strength of the population of Pakistani and Indian origin within the US, on the economic relevance of Pakistani and Indian firms, and on the relative power of foreign-sponsored Indian and Pakistani lobby groups. While population surveys and business surveys are carried out only every ten and every five years, respectively, the data on lobbying activity in the US is available on an annual basis from the US Department of Justice.²

The data on financial resources is further divided into expenses of the Pakistani and Indian government (government lobbying expenses, *glepak* and *gleind*, respectively) and the expenses of other, non-governmental institutions such as industrial or

commercial organizations (non-government lobbying expenses, *nglepak* and *ngleind*). While government lobbies are generally considered to be lobbying for a broad range of issues in international economics and politics, non-governmental lobbies are more specific in their objectives, such as investment and trade relations. Lobbying expenses are reported, like aid data, in '000 US\$ at constant 2001 prices.

While annual population data is not available, the relevance of the population pressure from Pakistani and Indian communities in the US can be approximated by data on naturalization. In fact, this variable might even capture the political influence of these ethnic groups more accurately than simple population figures, since only US citizens belong to the electorate wooed by political decision makers. Annual data on naturalization of Pakistanis (*paknat*) and Indians (*indnat*) is available from the US Department of Homeland Security.²

In order to test the impact of US economic interests in aid to Pakistan as suggested by Hypotheses 4 and 5, we also require data on FDI and exports. Data on US direct investment in Pakistan (*usfdipak*) and India (*usfdiind*) is provided by the US Department of Commerce, Bureau of Economic Analysis, while US exports to Pakistan (*usexpak*) and India (*usexind*) are available from the US Census Bureau, Foreign Trade Division.² All figures are again adjusted to constant 2001 prices and reported in '000 US\$.

We finally consider two control variables, one of which is a simple dummy (*dummy01*) for the year 2001, which must be expected to exceptionally affect aid as a reaction to September 11th, and the new strategic partnership with Pakistan. The second is US aid to Pakistan lagged by one period (*usaid(-1)*), which should reflect a certain sluggishness of changes in aid disbursements.

Table 2 presents the results of a simple OLS regression analysis using four different specifications. As could be expected, the 2001 dummy and lagged US aid are highly significant in all regressions in which they are included. *Ceteris paribus*, the effect of September 11th led to an increase of US aid to Pakistan of 700–800 million US\$.

Compared to this huge one-time effect, coefficients of other political variables appear rather modest in size. Nevertheless, their impact is non-negligible and significant in most specifications. Regarding ethnic lobbying, the variable finally selected for the regression models presented here is non-government lobbying expenses. It is included in specifications 1 and 3. Regression coefficients show the expected sign indicating that Pakistani lobbying positively affects aid while Indian lobbying has the opposite effect. According to Regression 1, a one thousand US\$ increase in Pakistani lobbying expenses leads to an 8 million increase in US aid to Pakistan. The same increase in Indian lobby expenses reduces US aid to Pakistan by about 0.1 million US\$. While the size of the coefficients is not robust across specifications, it clearly comes out that Pakistani lobby expenses have a much higher effect than Indian lobby expenses. A possible interpretation might be that aid to India and Pakistan are only partial substitutes, so that Indian lobbies' activities to enhance financial flows to their own country would only partially be detrimental to aid to Pakistan. Generally, one might imagine that aid to Pakistan is a central objective of Pakistani lobbying, while Indian lobbying also serves various other objectives.

It is interesting to note that the same significant results could not be found with respect to government lobbying expenses. A possible interpretation could be that lobbying driven by private business interests has a stronger focus and impact than government lobbying. However, as both variables are correlated and the available evidence is based on rather few observations, this interpretation should be considered

with caution. It could also be that government lobbying is simply not so well measured, since governments may try to hide their channels of influence.

Including the naturalization variable is not significant either. This might be due to the fact that during the period of analysis, the naturalization process was very strict, resulting in very few Pakistanis and Indians that were effectively naturalized (Anwar and Michaelowa, 2004, Annex A, Table A2). In fact, the naturalization of just a few individuals cannot really be expected to show any significant effect on US aid policy.

There is another problem related to the small sample size. Increasing the number of explanatory variables to more than four or five makes it very difficult to find any significant effects, due to the limited degrees of freedom in the regression. For this reason, not all variables thought to be relevant could be included in the regression simultaneously. Including lagged aid, but leaving the specification of Regression 1 and 3 unchanged otherwise, leads to regression coefficients which still show the expected signs, but are almost all just below the level of significance (not shown). The same problem arises with respect to the variables introduced to measure the influence of US business interests abroad. When both exports and FDI are included into the regression simultaneously, hardly any significant impact can be distinguished. However, when either of the two is included separately, they turn out to be significant (Regressions 2 and 4).

For a given amount of funds spent on either FDI or exports, it seems that FDI induces a stronger business pressure with respect to aid. This is reflected both in the values of the coefficients and in their level of significance. The variables indicating exports and FDI to India are significant in all four specifications presented in Table 2, while this is not the case for those to Pakistan. A possible reason could be that the volume of US exports and FDI to Pakistan is relatively limited (Anwar and Michaelowa, 2004, Annex A, Table A2), so that small absolute errors in measurement can lead to important relative divergences, blurring the true underlying relationship. Regression coefficients in Regression 1, where FDI to both countries is significant,

Table 2. *Regression Results for US Aid to Pakistan Over Time*

<i>usaid</i>	<i>Regression 1</i>	<i>Regression 2</i>	<i>Regression 3</i>	<i>Regression 4</i>
<i>dummy01</i>	771,840.00***	717,957.00***	817,829.50***	747,279.40***
<i>usfdipak</i>	1.80**	-0.04		
<i>usfdiind</i>	-1.62**	-0.47***		
<i>usexpak</i>			0.08	0.13
<i>usexind</i>			-0.17**	-0.06**
<i>nglepak</i>	8,152.41**		2,062.79*	
<i>ngleind</i>	-105.70*		-64.54	
<i>usaid(-1)</i>		0.64***		0.38***
<i>constant</i>	379,046.10***	118,861.10***	579,352.10**	150,530.50
<i>N</i>	18	21	20	23
<i>R</i> ²	0.75	0.79	0.67	0.71
<i>adj. R</i> ²	0.64	0.74	0.55	0.65
<i>Breusch-Godfrey (small)</i>				
<i>F</i>	0.06	4.65	1.2	0.38
<i>p-value</i>	0.81	0.05	0.29	0.54

Notes: ***, **, and * denote significance at the level of 1%, 5%, and 10%, respectively. For detailed descriptions of the variables and their sources, see Anwar and Michaelowa (2004, Annex A, Table A1).

indicate that US aid to Pakistan increases by 1800 US\$ if FDI to Pakistan rises by 1000 US\$, while it decreases by 1620 US\$ if FDI to India rises by the same amount. Note that even though this seems to again imply a stronger impact of lobbies directly involved with Pakistan, as compared to those primarily involved with India, the relatively higher importance is much less pronounced (and also much less robust across specifications) than in the case of foreign lobbying expenses discussed above. In any case, the impact of one US\$ spent on lobbying has a much higher impact than one US\$ spent on FDI or exports. This could be expected, since exports and FDI are not primarily carried out with the objective of fighting for aid, and the US exporters and investors will only start to seriously lobby US government interventions, such as development cooperation, once they are heavily financially involved in a particular country.

Overall, the regression results appear to be consistent with expectations. General regression statistics indicate that variables included in the model explain between two-thirds and three-fourths of total variation, whereby, of course, much of the explanatory power is simply due to the strong effect of the 2001 dummy. Using the Breusch–Godfrey test for small samples, the hypothesis of no autocorrelation of residuals must be rejected only for one specification (Regression 2 with FDI and the lagged aid variable).

All in all, while the number of observations is limited, this initial time series analysis still provides relatively consistent evidence for both the relevance of ethnic lobbying and the influence of US business interest. Interestingly, while donor business interests have been emphasized in many earlier studies, the relevance of ethnic lobbying first highlighted in the theoretical work by Lahiri and Raimondos-Møller (2000) can be empirically shown to be much stronger in its impact per dollar invested. Finally, it should be emphasized that with respect to each of the factors discussed above, the indirect effect through interest groups involved with India is found to be significant as well (with the expected negative sign).³

Empirical Analysis of Senate Voting on Aid to Pakistan

Let us now adopt a different perspective and consider political decision making at the level of each individual legislator. Using logistic regressions, senators' votes for or against the Pressler and the Brown Amendment can be estimated as a function of various characteristics of their constituencies. We first consider each amendment separately, whereby the dummy variable (*senate_vote*) is assigned a 1 if the vote is cast in favor of the amendment and a 0 otherwise. For both the senate roll call and for the senators' party affiliation (*party_affln*), which should be a relevant explanatory variable according to Hypothesis 6, the data has been acquired from Congressional Quarterly Reports and from the US Senate.² If the senator is a Republican, then he is assigned a 1, while he is assigned a 0 if he is a Democrat.

As opposed to the time series analysis in the previous section, we now also have data on the population of the different ethnic groups within the US (and the individual constituencies). This data is based on the US Census of Population for the years 1980, 1990 and 2000.² For the year 1980, the data used for both Pakistanis and Indians in each US state is based on a sample census, whereas for 1990 and 2000 it is a 100% count. The population variables used in the context of the Pressler Amendment in 1985 and the Brown Amendment in 1995 are computed as simple mean values of data for the beginning and the end of the decade. In order to control for the size of the different constituencies, we divide these means by the corresponding values for the total population in each state. This yields four variables for the relative strength of both

Pakistani (*poppak85*, *poppak95*) and Indian (*popind85*, *popind95*) ethnic groups in each constituency.

As the US Federal Election Commission (FEC) did not categorize the Political Action Committees (PACs) on ethnic affiliation, there is no data available for domestic lobbies of expatriate Pakistanis and Indians. However, since we assume that effective lobbying through financial contributions and economic pressure depends upon economic power, we have looked at minority owned businesses data. The Surveys of Minority Owned Business and Enterprise, conducted every five years since 1982 by the US Census Bureau, provide data on the number of all firms, as well as firms with paid employees, their sales, and the number of employees working in these firms.² Unfortunately, data is available only for India and not for Pakistan. As the surveys were not carried out during the exact years of the amendments, and linear approximation using two subsequent surveys was rendered impossible due to changes in definitions, we selected the closest years, i.e., 1987 and 1997, for the Pressler and the Brown Amendment, respectively.

While it would have been interesting to make use of the detailed information on firm numbers versus firms' sales and firms' employees, it turns out that these variables are so strongly correlated that if taken together, none of them is significant anymore.⁴ For this reason, the regressions displayed in Table 3 and 4 include only the variable of Indian firms' numbers (*allfirmsn87* and *allfirmsn97*, respectively). Results using only sales or employees are very similar. As the correlation is very high even with the population variable, a second specification introduces the variables *powerind* and *powerpak*, which encompass all available information on ethnic influences, be it on the basis of pure population pressure or economic power. To create these indices, first, all underlying variables were standardized to a mean of zero and a standard deviation of one, and second, the average was taken across all these variables for each state.⁵ See Anwar and Michaelowa (2004), Annex A, Table A1, for a description of all variables included in each case.

Tables 3 and 4 show the results for the Pressler and the Brown Amendment, respectively. As a vote for the Pressler Amendment can be considered as "against Pakistan," and a vote for the Brown Amendment can be considered as "pro Pakistan," the

Table 3. Logistic Regression Results for the Pressler Amendment

<i>senate_vote</i>	Regression 5	Regression 6
<i>party_affln</i>	1.22**	1.09**
<i>poppak85</i>	-14,948.04**	
<i>popind85</i>	1,471.71**	
<i>allfirmsn87</i>	0.0023	
<i>powerpak</i>		-1.24
<i>powerind</i>		7.83**
constant	-0.54	5.32***
<i>N</i>	94	94
Pseudo <i>R</i> ²	0.21	0.18

Notes: ***, **, and * denote significance at the level of 1%, 5%, and 10%, respectively. In Regression 6 *powerpak* is simply the standardized value of *poppak85*, as there is no other suitable variable available for Pakistani lobbying power in 1985. For detailed descriptions of the variables and their sources, see Anwar and Michaelowa (2004, Annex A, Table A1).

Table 4. Logistic Regression Results for the Brown Amendment

<i>senate_vote</i>	<i>Regression 7</i>	<i>Regression 8</i>	<i>Regression 9</i>
<i>party_affln</i>	2.22***	2.12***	2.28***
<i>poppak95</i>	3,036.84		
<i>popind95</i>	-205.78		
<i>allfirmsn97</i>	-0.0002**		
<i>stexppak</i>			-2.44e-09
<i>stexpind</i>			-5.95e-09**
<i>powerpak</i>		0.19	
<i>powerind</i>		-1.62**	
<i>constant</i>	-0.55	-1.70***	-0.61*
<i>N</i>	100	100	100
<i>Pseudo R²</i>	0.26	0.25	0.23

Notes: ***, **, and * denote significance at the level of 1%, 5%, and 10%, respectively. For detailed descriptions of the variables and their sources, see Anwar and Michaelowa (2004, Annex A, Table A1).

coefficients of ethnic influences in both tables are reversed. Overall, the results are consistent with the hypothesis of ethnic lobbying. Interestingly, it seems, however, as if the impact of the direct political support through the Indian and Pakistani populations played a much stronger role for the Pressler than for the Brown Amendment. This could be due to the fact that ever since the early 1980s, due to the Soviet-Afghan war aid flows to Pakistan had been a major issue of discussion. Therefore, as opposed to the time of the Brown Amendment, the general population was already well aware of the issue and followed the debates. Hypothesis 1, suggesting the relevance of ethnic population groups, therefore, seems to be influenced by certain precondition of the voting process. At the same time, business lobbies with vested interests and an existing lobbying structure appear to closely follow policy making in any case. Consequently, the number of Indian firms is negatively related to pro-Pakistani voting (i.e., in favor of the Brown, and against the Pressler Amendment). While in the case of the Pressler Amendment, the corresponding coefficient is not shown as significant, it falls only slightly below the 10% level of significance (p -value = 0.11). All in all, this provides some support for Hypothesis 2 on the influence of ethnic business lobbies.

The index of Indian ethnic power in the US, including both aspects of potential ethnic influences on decision making, is significant with the right sign in both regression tables.

In the context of the Brown Amendment, we can introduce an additional explanatory variable in order to test Hypothesis 5, on the impact of export related US business interests in Pakistan and India. As opposed to the 1980s, where this data was not available, exports by state are reported by the Foreign Trade Division of the US Census Bureau and the Global Trade Information Services, Inc. from 1993 onwards.² Assuming a proportional relationship between the volume of exports and the strength of vested interests, the volume of state exports to Pakistan and India *stexppak* and *stexpind* is included in Regression 9. State exports to India show the expected significant negative coefficient while state exports to Pakistan do not turn out to be significant. Moreover, we again face strong correlations between the different explanatory variables, so that *stexpind* loses its significance when introduced jointly with other

variables. As opposed to the similar regression in Table 3, the general *powerind* and *powerpak* variables in Regression 8 include this additional aspect of lobby influence. In fact, this implies that strictly speaking, they not only encompass ethnic lobbying, but also potential US business interests. Given the high correlation coefficients, it appears to be difficult to effectively separate the different effects (Anwar and Michaelowa, 2004, Annex B).

Finally, it should be noted that business lobbying variables as used in Regressions 5–9 all rely on absolute figures, rather than on figures relative to state size. While relative figures appear to be intuitively more compelling and seem to be the preferred choice in most other papers on congressional voting decisions (Baldwin and Magee, 2000; Coughlin, 1985; Tosini and Tower, 1987), we seem to face threshold effects here which cannot be adequately captured by a relative variable. It appears that only from a minimum absolute number onwards, firms are able to organize lobbying activities and therefore start to influence policy making.

In Table 5 finally, voting patterns for the Pressler and the Brown Amendments are analyzed jointly. For this purpose votes cast in the Senate are recoded in a way that 1 always indicates a vote “pro Pakistan” (*senate_vote_pp*), i.e., against the Pressler and in favor of the Brown Amendment. As Republicans tended to vote against Pakistan at the times of the Pressler Amendment, and in favor of Pakistan in the context of the Brown Amendment, the party affiliation variable needs to be taken into account separately for the two years (*party_affln85*, *party_affln95*). Comparing estimation results for these two variables, it appears that, in fact, voting in party line has been more relevant for the Brown than for the Pressler Amendment. In regression specification 11, *party_affln85* is not even significant. Similar differences between the decision-making processes in 1985 and 1995 have already been noted above with respect to the influence of the population of Indian and Pakistani expatriates in the US. If we allow the coefficients of *poppak* and *popind* to take a different value for 1995, we obtain a correction factor which suggests a greatly reduced impact in the context of the Brown Amendment. In the Indian case, the correction factor is clearly significant.

As far as the influence of ethnic business lobbies is concerned, no such difference between the two amendments can be observed, and it seems that the corresponding

Table 5. Logistic Regression Results for the Pressler and the Brown Amendment Jointly

<i>senate_vote_pp</i>	Regression 10	Regression 11	Regression 12	Regression 13
<i>party_affln85</i>	-0.92**	-0.69	-1.01*	-1.09*
<i>party_affln95</i>	2.48***	2.12***	2.26***	2.32***
<i>poppak</i>	5,150.91**	4,936.38**	12,276.71*	12,157.24*
<i>popind</i>	-502.78**	-529.78**	-2,248.89**	-1,822.66**
<i>poppak95</i>			-9,014.11	-9,073.44
<i>popind95</i>			2,050.18**	1,698.47**
<i>allfirmsn</i>	-0.0002**	-0.0002**	-0.0002**	
<i>fpind</i>				-2.77**
<i>year_dummy</i>		0.51	-1.36	-1.37
constant	-0.4511	-0.63	0.78	-1.57
<i>N</i>	194	194	194	194
pseudo <i>R</i> ²	0.26	0.27	0.29	0.31

Notes: ***, **, and * denote significance at the level of 1%, 5%, and 10%, respectively. For detailed descriptions of the variables and their sources, see Anwar and Michaelowa (2004, Annex A, Table A1).

variables can be safely estimated jointly across the two years. Again the number of Indian firms within the state shows the expected negative effect on pro-Pakistan votes. The effect becomes even more strongly significant when we replace the variable *allfirmsn* with the joint variable, including the average of standardized values for firm numbers, employees and sales (“firm power India” *fpind*). The index is constructed in the same way as *powerind* above, but does not include the population variables, as they need to be split over the two years.

The *year_dummy* variable, introduced to capture unobserved differences between the two years, is insignificant in all specifications. However, as the year dummy comes close to the threshold of the 10% significance level in some cases, we tend to keep it in the regression in order to avoid a potential omitted variable bias.

All in all, we find consistent evidence for the influence of ethnic groups. While the impact of ethnic business lobbies is equally relevant throughout, the relevance of the share of the state population from India and Pakistan plays a much greater role in 1985 than in 1995. As export and FDI data by state are unavailable or available only for recent years, their impact could not be tested in Table 5. Evidence from the Brown Amendment in 1995 displayed in Table 4 shows that there might be some influence exerted by US exporters to India, but correlations with variables such as population and Indian firms are so high that this influence cannot be isolated. Finally, as expected, senators are found to typically vote in party line. However, party positions seem to have emerged much more clearly in 1995 than in 1985. Moreover, even in 1995, we find some variation, and in fact, even the Democratic president opted against the majority of his senators.

Methodologically, it may be observed that the above results have been derived under the hypothesis that each senator takes a decision independently of any other senator, once party affiliation and all other explanatory variables are corrected for. It could be imagined, however, that there are unobserved effects within each state, drawing its two representatives in the Senate in the same direction. If this were true, the independence assumption would be correct and lead to an underestimation of standard errors, i.e., to coefficients appearing significant while in reality, they are not. To test the robustness of the above results, Anwar and Michaelowa (2004, Annex D) have run all regressions again with an error structure allowing for state specific random effects. The results indicate that while indeed the influence of some variables appears slightly less significant, the overall outcomes reinforce our confidence in the regression results discussed above.

4. Conclusions

In line with the growing literature on the political economy of development assistance, this paper analyzes US aid to Pakistan under the particular perspective of the potential influence of two opposing ethnic groups, i.e., Pakistanis and Indians living in the US. In an econometric analysis inspired by Lahiri and Raimondos-Møller’s (2000) theoretical model, these two groups are shown to exert a relevant influence on the development of aid disbursements over time, as well as on the outcome of votes for specific amendments passed in the Senate. While US business interests abroad also play a relevant role, time series analysis reveals that the impact of ethnic lobbying per dollar invested is even stronger. Analyzing voting patterns in the Senate, US business interests and ethnic lobbying cannot fully be disentangled due to the high correlation between these variables. In any case, evidence for ethnic lobbying is rather strong for

the Pressler Amendment in 1985, as well as for the Brown Amendment in 1995. Both of these greatly influenced US development cooperation with Pakistan.

While in the case of the Pressler Amendment, the direct influence of population groups of Indian and Pakistani origin seems to have played a predominant role, the role of ethnic business lobbies appears to have dominated in the context of the Brown Amendment. This may reflect some differences in the political background of the voting process which implied that the Pressler Amendment in the midst of the Afghan war was much more directly perceived as an anti-Pakistani decision-making endeavor. Finally, as expected, party affiliation also plays an important role in explaining voting behavior, but much more so in 1995 than in 1985 and with parties switching positions between the two amendments.

All in all, using various estimation techniques and regression specifications, based on the example of US aid to Pakistan, this paper provides compelling evidence for political economic determinants of bilateral aid. As political economic factors in the donor country cannot be expected to be closely related to the actual needs of the recipient, this raises difficult questions with respect to aid effectiveness and the efficiency of funds invested in development cooperation. It remains an open question how the direct interest of political decision makers in donor countries can be brought in line with the objectives of actual development.

References

- Alesina, Alberto and David Dollar, "Who Gives Aid to Whom and Why?" *Journal of Economic Growth* 5 (2000):33–63.
- Anonymous, "India Lobbying to Block US Aid: Pakistan," *rediff.com*, <http://www.rediff.com/news/2003/jul/21pak2.htm>, accessed on 8/1/2004, 21 July (2003).
- Anwar, Mumtaz and Katharina Michaelowa, "The Political Economy of US Aid to Pakistan," HWWA Discussion Paper 302, Hamburg Institute of International Economics, Hamburg (2004).
- Baldwin, Robert E. and Christopher S. Magee, "Is Trade Policy for Sale? Congressional Voting on Recent Trade Bills," *Public Choice* 105 (2000):79–101.
- Berthélemy, Jean-Claude and Ariane Tichit, "Bilateral Donors' Aid Allocation Decisions—A Three-Dimensional Panel Analysis," *International Review of Economics & Finance* 13 (2004):253–74.
- Coughlin, Cletus C., "Domestic Content Legislation: House Voting and the Economic Theory of Regulation," *Economic Inquiry* 23 (1985):437–48.
- Gawande, Kishore, Pravin Krishna, and Michael J. Robbins, "Foreign Lobbies and US Trade Policy," NBER Working Paper 10205 (2004).
- Harms, Philipp and Matthias Lutz, "Aid, Governance, and Private Foreign Investment: Some Puzzling Findings for the 1990s," *The Economic Journal* (2006), forthcoming.
- Hersch, Philip L. and Gerald S. McDougall, "Determinants of Automobile PAC Contributions to House Incumbents: Owner versus Rival Effects," *Public Choice* 104 (2000):329–43.
- Kim, Byoung-Joo, "Explaining the Country Patterns of Foreign Lobbying in the United States: Issues, Capabilities and Norms," PhD Dissertation, MIT (1999).
- Lahiri, Sajal and Pascalis Raimondos-Møller, "Competition for Aid and Trade Policy," *Journal of International Economics* 43 (1997):369–85.
- , "Lobbying by Ethnic Groups and Aid Allocation," *The Economic Journal* 110 (2000):c62–79.
- Maizels, Alfred and Machiko K. Nissanke, "Motivations for Aid to Developing Countries," *World Development* 12 (1984):879–900.
- Mayer, Wolfgang and Pascalis Raimondos-Møller, "The Politics of Foreign Aid: a Median Voter Perspective," *Review of Development Economics* 7 (2003):165–78.

- Morgan, Dan and Kevin Merida, "South Asia Rivals Had Money on South Dakota Senate Race; Ethnic Donors Play Powerful Role in U.S. Politics," *The Washington Post*, Monday Final Edition, 23 March (1997).
- Morrissey, Oliver, "Business Interests and Aid Policy," Paper Presented at the seminar on The Future of Aid: Donor Constituencies, hosted by CDR, Copenhagen (1996).
- OECD/DAC, International Development Statistics Online Databases for Aid and other Resource Flows, <http://www1.oecd.org/scripts/cde/members/DACAuthenticate.asp>, accessed on 15/10/2004 (2004).
- Peltzman, Sam, "Constituents Interest and Congressional Voting," *Journal of Law and Economics* 27 (1984):181–210.
- Schneider, Friedrich and Frey Bruno S., "Economic and Political Determinants of Foreign Direct Investment," *World Development* 13 (1985):161–75.
- Smith, Tony, *Foreign Attachments; The Power of Ethnic groups in the Making of American Foreign Policy*, Cambridge: Harvard University Press (2000).
- Tosini, Suzanne C. and Edward Tower, "The Textile Bill of 1985: the Determinants of Congressional Voting Patterns," *Public Choice* 54 (1987):19–25.
- USINPAC, "US-India Relations, Opportunities for Further Actions," <http://www.usinpac.com/wordfiles/US-India%20Issues1.pdf>, accessed on 16/7/2004 (2003).

Notes

1. While there is no rivalry assumption in Lahiri and Raimondos-Møller's (2000) model, the assumption of a substitution of aid flows to one country by aid flows to another country is a central pillar of their model, too. This assumption reflects the hypothesis that the overall amount of aid (and in our case, even more specifically, the amount allocated to the South Asian region) remains constant when financial resources to one particular recipient are increased. In practice, overall resources do not need to remain fully constant, but they should not increase correspondingly. As this appears to be a realistic scenario, we decided to always consider Indian groups simultaneously with Pakistani groups and to let the empirical results decide upon the actual relevance of both in the context of aid to Pakistan.
2. For a detailed description of the data and its sources, see Anwar and Michaelowa (2004, Annex A), also accessible electronically at <http://www.hwwa.de/Publikationen/Discussion_Paper/2004/302.pdf>.
3. An analogous analysis can be carried out for US aid to India to check for evidence of a reciprocal relationship. In this case, the 2001 dummy is no more relevant. Instead, it seems that the year 1981 had some exceptional impact—possibly due to the reelection of Indira Gandhi one year earlier. Generally, it is much more difficult to find significant relationships than in the case of aid to Pakistan. As far as the most interesting variables of non-government lobbying expenses are concerned, estimates for both Pakistani and Indian groups generally show the expected signs, but only the Indian variable is significant.
4. See Anwar and Michaelowa (2004, Annex B) for the correlation matrix of the different variables.

5. Example: $powerpak_i$ (for 1995) = $\left(\frac{poppak95_i - \mu_{poppak95}}{\sigma_{poppak95}} + \frac{stexppak_i - \mu_{stexppak}}{\sigma_{stexppak}} \right) \times \frac{1}{2}$,
for each state $i = 1, \dots, 50$.