

Agency Problem in Foreign Aid to Pakistan: Does Conflict matter?

Dr Nadia Tahir

Associate Professor
Lahore Business School
University of Lahore
September 28, 2012

Economic Assistance

- Two gap model provides rationale for foreign economic assistance for development
- Failure of aid agenda is ‘myopic behavior’ of the recipient to appreciate opportunity for development
- Aid appears as easy money and lacks ownership, no appreciation of opportunity cost

Aid to conflict

- Donor offers aid contract for strategic and political agenda
- Recipient agrees on the contract, and shows willingness for reforms without counting indirect consequences
- Recipient and donor both have short term interests
- Money in and out is not without long term effect

Aid to Conflict

- Aid creates economic inequalities by affecting distribution of income
- It appears as easy money that creates an adverse selection problem
- Conflict emerges as an outcome by pursuing donors' agenda
- Withdrawal of aid generates shock , and creates capacity issues

(Collier, 2007, 2009; Balla and Reinhardt, 2008; Nielsen et al., 2010).

Research Question

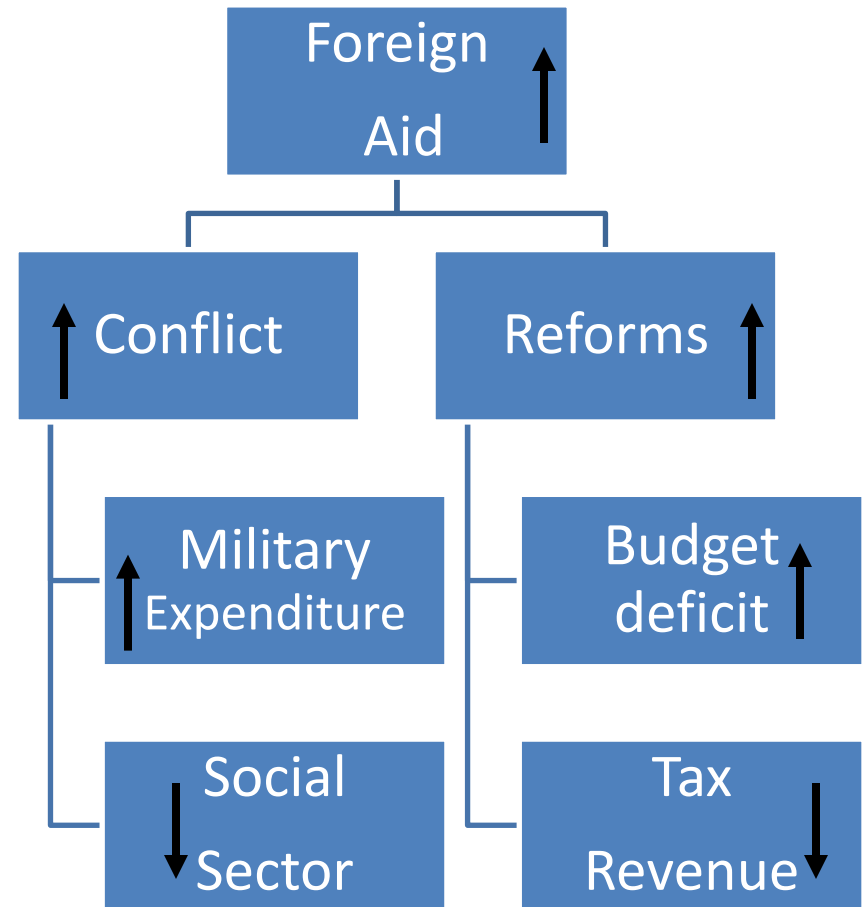
- Develop a framework for finding the missing link from aid to conflict
- How aid creates conflict? Is it a source of moral hazard? How does conflict impacts upon human development in Pakistan

Hypotheses

- Conflict emerges as incompatibility of goals between donor and recipient
- Conflict makes government more impatient and less responsive to people's needs

Research framework

- High discount rate policies create negative investment for private sector capital accumulation (Easterly, 2002)
- Food Imports from donor badly affect agriculture: food production declines and food prices rise
- Inflation erodes purchasing power; declining real wages



Maximizing welfare of the recipient

maximize $W(x)$

$$R(x) = E(x)$$

$$R(x) = \alpha t_0 + (1 - \alpha) t_1$$

$$E(x) = CY^t + S(x) - D(x) - R(x)$$

$R(x)$ = Total resources available

t_0 = Domestic resources, α = weight assigned on the basis of the tax rate

t_1 = Official development assistance, $(1 - \alpha)$ is weight assigned to ODA rate

$E(x)$ = Expenditure

Cy^t = All other expenditures

$S(x)$ = Social Sector Expenditure

$D(x)$ = Defence related expenditure due to conflict being a strategic ally

$R(x)$ = Reform related expenditure

Welfare function

$$W(x) = \sum_{t=1}^T \left[\frac{R1t}{(1+r)^t} - E(x)(at) \right]$$

Subject to

$$S_1(x) \dots b_1$$

$$D_2(x) \dots b_2$$

$$R3(x) \dots b_3$$

Lagrangian function

$$L(x, \lambda) = W(x) - \sum_{i=1}^m \lambda_i (g_i(x) - b_i)$$

Defining Conflict

- Incompatible goals based on interests, not need (Singer, Small, Burton, Galtung)
- Assertive and non cooperative

Conflict is an outcome of aid that appears as an intervention into societal expectations

Strategic and political alliance with donor entails external conflict and its fallout is internal conflict

Incompatibility of goals

- Residual value of Lagrangian function will generate a set of values depicting incompatibility of aid agenda

$$P = P(L)$$

$$\text{when } w(x) < \sum \lambda(g_i(x)) - b_i$$

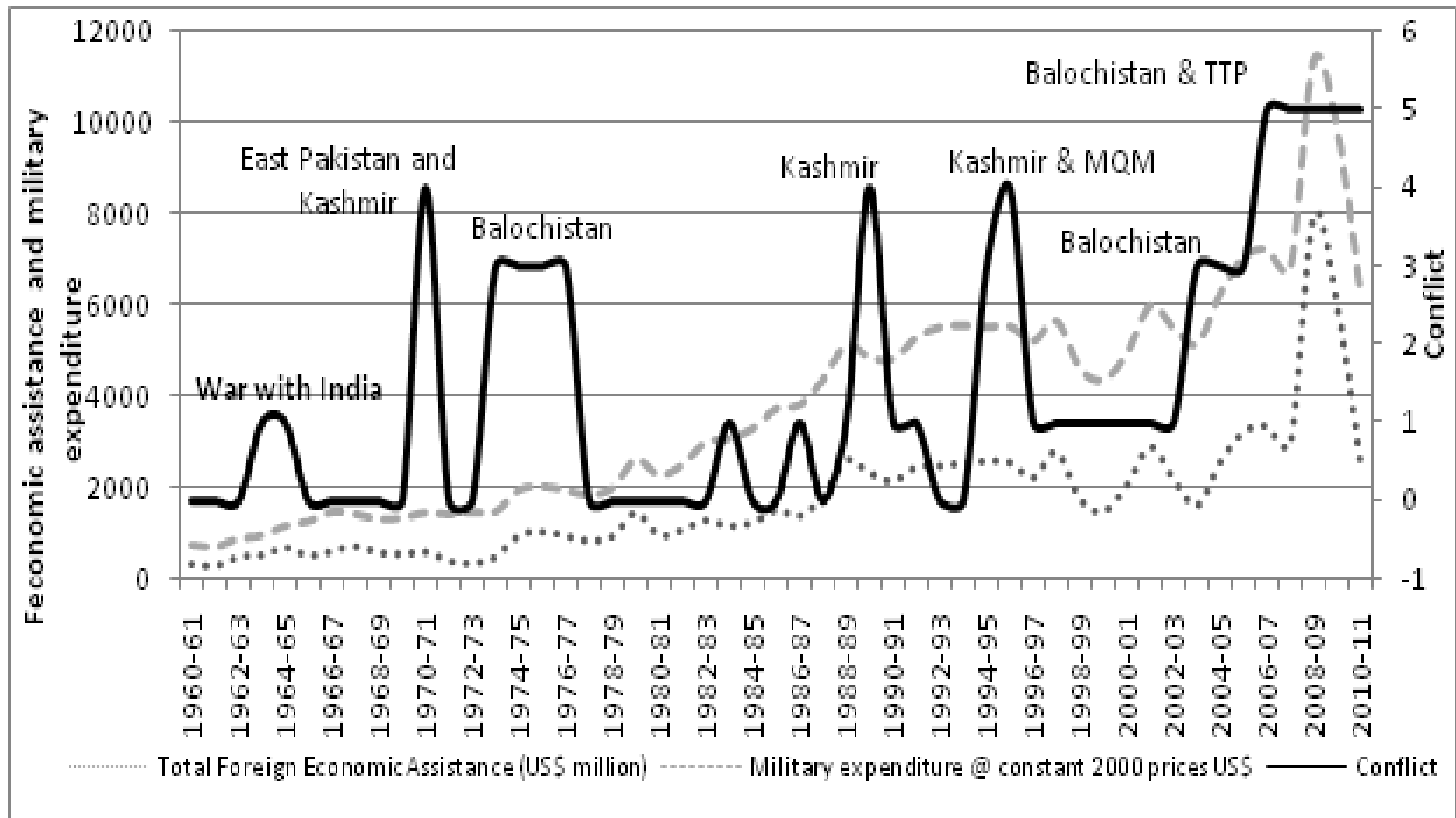
Conflict distribution

- Conflict (yt) is a discrete variable, which is measured as a positive integer
- In any time period there are four types of conflict that can occur in Pakistan
- Conflict is measured as one event per unit of time (year) and as a multinomial scale in discrete intervals (0-4)
 - zero means no conflict
 - 1 means interstate conflict
 - 2 means intrastate conflict which is ethnic in nature
 - 3 means interstate and intrastate ethnic conflict
 - 4 means intrastate ethnic and religious conflict

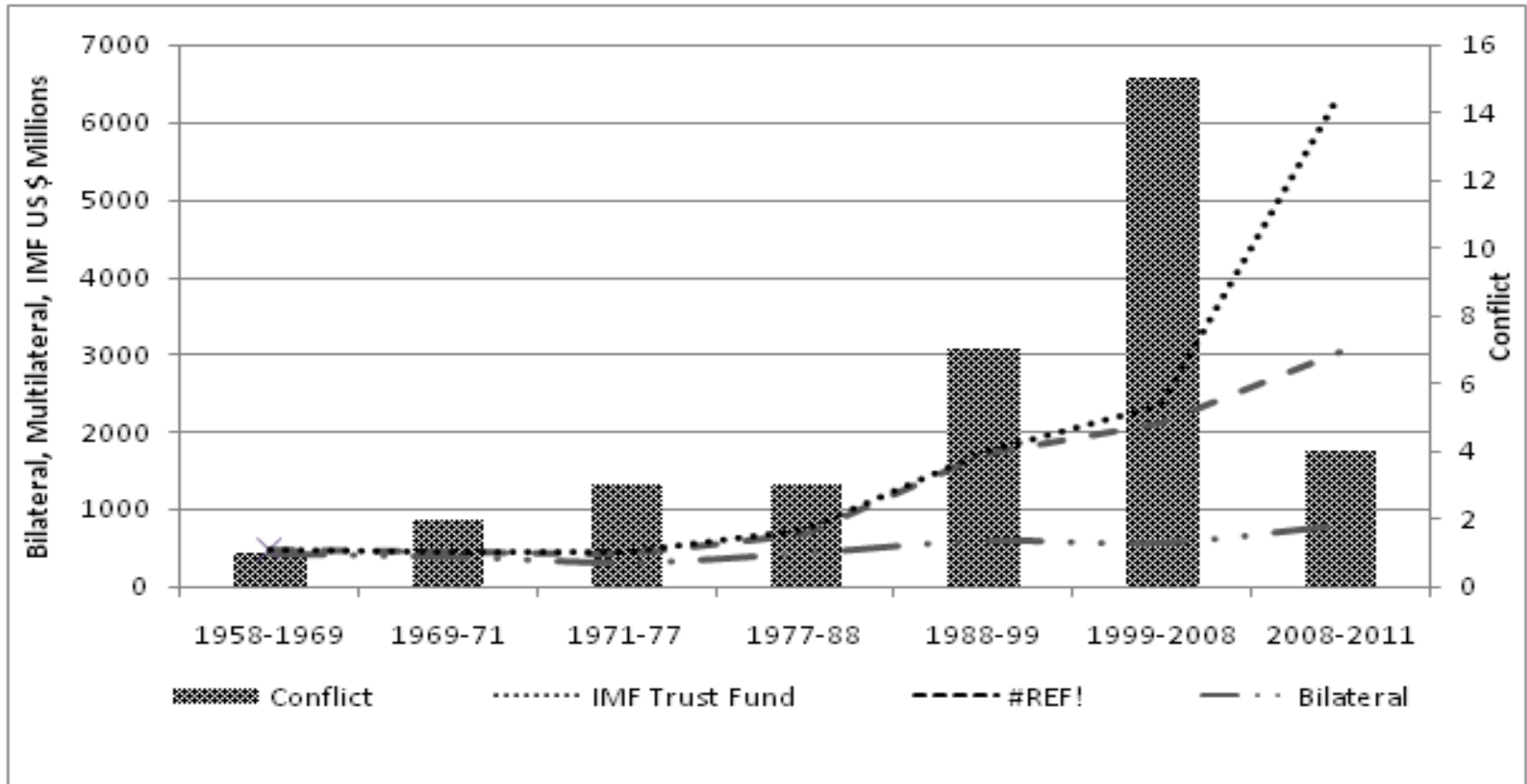
Conflict

- Conflict in Pakistan was differentiated on the basis of intensity, cumulative intensity, conflict type, incompatibility of the objective
- 1 = minor and 2 = major or war
- 1= history of the conflict, '0'= otherwise or no history
- 1= armed conflict is interstate and 2=internal armed conflict
- 1= to get the territory, 2= to get the government and 3= to get both government and territory

Conflict and foreign economic assistance in Pakistan



Foreign economic assistance and conflict



Conflict, aid, growth, investment and military expenditure (annual averages)

Regimes	Incidence of Conflict (Number)	Aid as % of GDP	GDP Growth Rate	GDP Per Capita Growth	Aid as % of Total Investment	Military Expenditure as % of GDP
Field Marshal Ayub Khan [1961-1969]	2(L, H,T)	8.49 (0.22)	6.43 (0.3)	4.52 (0.5)	46 (0.2)	3.13 (0.23)
General Yahya Khan [1970-1972]	2(H,T)	4.60 (0.33)	4.21 (1.47)	1.29 (4.35)	30 (0.3)	3.93 (0.12)
Zulfikar Ali Bhutto[1973-1977]	3(L, T)	6.17 (0.30)	4.05 (0.5)	2.17 (0.8)	37 (0.3)	6.24 (0.10)
General Zia-ul-Haq [1978-1988]	3(L,T)	6.96 (0.15)	5.91 (0.3)	2.04 (0.9)	28 (0.2)	5.94 (0.11)
Benazir Bhutto and Nawaz Sharif [1989-99]	7(L,T)	4.25 (0.26)	4.54 (0.5)	1.34 (1.3)	25 (0.2)	5.55 (0.13)
General Pervez Musharraf [2000-2007]	15(L, H, G)	2.53 (0.29)	5.35 (0.4)	2.91 (0.8)	14 (0.4)	3.66 (0.07)
Asif Ali Zardari [2008-2011]	4(H,G)	3 (0.45)	2.89 (0.6)	2.14 (0.2)	17 (0.4)	3.16 (0.09)

Ordered Probit Regression

Number of obs = 51
 LR Chi 2(4) = 36.60
 Prob > Chi 2 = 0.000
 Log likelihood = -53.36
 Pseudo R2 = 0.2553

Conflict	Coefficient	Standard Error	Z	P> z	95% Confidence Interval	
Oda	0.2950068	0.1349235	2.19	0.029	0.0305616	0.5594521
Mexp	0.0011995	0.0002774	4.32	0.000	0.0006559	0.0017432
Taxes	-0.1221559	0.1004788	-1.22*	0.224	-3.190906	0.0747789
Cpi	0.1015626	0.0324506	3.13	0.002	0.0379605	0.1651647
/cut 1	2.5443	1.764774			-0.914592	6.003193
/cut 2	3.59998	1.799615			0.0727998	7.12716
/cut 3	4.349878	1.802045			0.8179345	7.881822
/cut4	4.877664	1.799695			1.350326	8.405002

*Insignificant result

Heckman Selection Model

- Outcome Equation: $\text{Conflict} = f(\text{Aid, military expenditure})$
- Selection Equation: $\text{War} = f(\text{Aid, Military Expenditure, Inflation, Taxes})$

Heckman Selection model

Conflict	Coefficient	Standard Error	z	P> z 	95% Confidence Interval	
Oda	0.266567	0.13568	1.96	0.049	0.0006401	0.532494
Mexp	0.001107	0.000288	3.84	0.000	0.0005419	0.001671
_cons	-2.07561	1.085052	-1.91	0.056	-4.202271	0.051056
War						
Cpi	-0.03561	0.004461	-7.98	0.000	-0.044354	-0.02687
Taxes	0.07081	0.00887	7.98	0.000	0.0534243	0.088195
Oda	0.342729	0.122779	2.79	0.005	0.1020858	0.583372
Mexp	0.001299	0.000276	4.7	0.000	0.0007574	0.00184
Cons	-4.33876	1.01605	-4.27	0.000	-6.330185	-2.34734
/athrho	16.35542	262.0043	0.06	0.950	-497.1637	529.8745
/lnsigma	0.128338	0.125269	1.02	0.306	-0.117184	0.37386
Rho	1	6.46E-12			-1	1
Sigma	1.136937	0.142422			0.8894216	1.453333
Lambda	1.136937	0.142422			0.8577943	1.41608
LR test of indep. eqns. (rho = 0): chi2(1) = 19.05 Prob > chi2 = 0.0000						

Final Stage of Heckman Procedure

Average truncation effect = $\lambda \times [\text{average mills value}] = 1.13 \times 0.879 = 0.993$.

Conflict	Coefficient	Standard Error	z	P> z 	95% Confidence Interval	
Oda	0.342932	0.17928	1.91	0.056	-0.0084504	0.6943144
Mexp	0.000889	0.000486	1.83	0.067	-0.0000634	0.0018404
Cpi	0.026745	0.044372	0.6	0.547 *	-0.060222	0.1137118
Taxes	0.058914	0.162933	0.36	0.718 *	-0.260428	0.3782567
Invmills	0.878677	0.640023	1.37	0.170	-0.3757451	2.133098
_cons	-6.5148	2.837588	-2.3	0.022	-12.07637	-0.9532338

*Insignificant

Truncation effect = $[\exp(0.99327) - 1] \times 100 = 169\%$

Conclusion

- Incompatibility of goals and short sightedness of the donor is a cause of reverse moral hazard
- Aid increases incidence of conflict in Pakistan
- Governments are more responsive to donors than to the people's needs