

Rethinking Foreign Aid for Fragile States

Kiertisak Toh¹ and Prahlad Kasturi²

Abstract

Many fragile states experienced conflict and its adverse impact on poverty and development at the end of the Cold War in the late 1980s. The conflict-trap on development and global security concern spawned empirical research on how policies should be distinctive in the conflict-affected and post-conflict recovery to avoid the recurrence of conflicts. The literature on aid effectiveness in fragile states is relatively limited in comparison to a much larger body of literature on aid effectiveness for all aid recipients. In this paper, we apply cluster analysis and robust regression to a set of OECD-DAC-designated fragile states to explore the effect of aid on development, measured by income, per capita income and by the UN Human Development Index, taking into account the interaction of weak institutional factors, and low absorptive capacity of aid associating with state fragility. The empirical results suggest positive relationship between aid and indicators of development, such as income and human development index.

Keywords: Economic Development, Fragile States, Official Development Assistance, and Aid Effectiveness

JEL: 011, 015, 057

1. Introduction

Because of their potential destabilizing effects fragile, conflict-affected, and failed states have increasingly been a concern to the international community and aid donors. The 9/11 tragic event attracted America's attention of how weak, fragile, and conflict-affected states can be breeding grounds for terrorism.

Even prior to 9/11, economists, social scientists, development practitioners, and policymakers both in the developed and developing worlds had raised issues related to the challenges of conflict-affected and fragile states on development. Many fragile states experienced conflict and its adverse impact on poverty and development at the end of the Cold War in the late 1980s.

In 2011, the World Bank devoted its World Development Report (World Bank, 2011) on fragile states, emphasizing the challenges of conflict, security, and development. The conflict-trap on development and global security concern spawned empirical research on how policies should be distinctive in the conflict-affected and post-conflict recovery to reduce vulnerability to recurrence of conflicts. Extensive research by Paul Collier and Anke Hoeffler, among others, provided the empirical underpinning for the call for rethinking foreign aid approach to fragile or conflict-affected countries (Collier and Hoeffler, 2002; Collier, 2007; Collier and Soderborn, 2007).

¹ Department of Economics, Radford University, Radford, Virginia and Duke Center for International Development, Sanford School of Public, Duke University, Durham, North Carolina. Email: ktoh@radford.edu

² Department of Economics, Radford University, Radford, Virginia. Email: pkasturi@radford.edu

In this paper, we examine the concept, operational definitions and interpretation of state fragility. We explore the possible effects of foreign assistance to fragile states and its implications for the post-2015 development goal of extreme poverty reduction. We applied cluster analysis to 26 of the OECD-designated fragile states in an attempt to discern the relationship between aid (official development assistance) and development. We found that aid has positive effect on development in fragile states. The next section provides the analytical concept of state fragility, its multidimensional character, and the measurement of fragility. Section 3 discusses key factors affecting state fragility and how they provide challenges for aid and development effectiveness. Section 4 presents and discusses the empirical results. Section 5 concludes with some policy implications for the rethinking of foreign aid for fragile states.

2. What Constitutes State Fragility

The question of what constitutes state fragility is not only of an academic exercise, but also of policy interest, particularly in the allocation and programming decisions of development assistance, in aid and development effectiveness, and decision related to the instruments to use for the effective delivery of aid.

In the literature on conflict and fragile states, several approaches, definitions, and measurements have emerged in recent years (Mata and Ziaja, 2009; World Bank, 2011). One approach focuses on the interconnectedness of three fundamental dimensions of the “Society-System Triad”, governance, conflict, and development. From this a state fragility matrix is established which rates each country on both *effectiveness* and *legitimacy* in four performance dimensions: security, political, economic, and social. A fragility index, the sum of effectiveness score and legitimacy score, for each country is created. The index is used as a measure of the extent of state fragility and for cross-country comparison. The effectiveness and legitimacy criteria rely on numerous security, political, economic, and social indicators (Marshall and Cole, 2014).

The U.K. Department of for International Development (DFID) adopts a working definition of fragile states as those whose governments cannot or will not deliver core functions to the majority of their people. These core functions include basic services such as security, safety, education, and health. State fragility is then taken to be the failing or at high risk of failing of state in three dimensions: *authority* failures; *service* failures; and *legitimacy* failures. The authority dimension focuses on the authority by the state to protect its citizens from violence of various kinds. The service dimension concerns the capability of state to ensure that all or majority of citizens have access to basic services. The legitimacy dimension emphasizes whether the state possesses legitimate or support among its citizens (Stewart and Brown, 2010).

The Canadian International Development Agency (CIDA) defines fragile states based on its “Country Indicators for Foreign Policy (CIFP) project – CIFP Fragility Index. Captured by this index are fundamental causes of state fragility stemmed from threats to the *authority*, *legitimacy*, and *capacity* of the state. The ACL components reflect indicators of state performance in governance, economic, human development, security and crime, demographic and environmental dimensions (Cament and Prest, 2006)

The U.S. Agency for International Development (USAID) defines fragility in terms of effectiveness and legitimacy – closely similar to the Society-System Triad of governance, conflict and development.

The definition is based on four categories of outcomes: political, security, economic, and social. Both effectiveness and legitimacy involve a mix of objective indicators (for example access to education, inflation rate) and subjective judgments about the facts in the indicators (whether access to education is inclusive or biased, inflation rate too high). Measuring effectiveness and legitimacy are based on interviews, public opinion polls, and surveys. Unfortunately, data comparability and timeliness are weak and spotty (USAID, 2005a, 2005b).

The World Bank defines states as fragile based on the World Bank’s diagnostic tool that intends to assess and capture the quality and implicitly performance of a country’s policies and institutions. The World Bank calls its internal assessment tool Country Polity and Institutional Assessment (CPIA). The CPIA process applies sixteen criteria in the assessment process.

These criteria are grouped into four areas: economic management, structural policies, policies for social inclusion and equity, and public sector management and institutions. Out of a score range of 1 (low performance/quality) to 6 (high), the World Bank considers a country's overall CPIA score of 3.0 or lower as fragile. The overall country scores reflect various indicators, observations, and judgments by the World Bank staff's knowledge and analytic work both from the World Bank itself as well as from others. The overall country rating score takes into account quality of policies and institutions, policy actions, implementation and outcomes (World Bank, 2011a). It is intended to measure the extent to which a country's policy and institutional framework supports sustainable growth and poverty reduction. This underscores the concerns of whether fragile states can absorb aid effectively.

The Development Assistance Committee (DAC) of the Organization of Economic Co-operation and Development (OECD) adopts the CPIA approach. In its Fragile States Report 2013, OECD-DAC categorizes 47 countries as fragile states. The list is derived from the World Bank-African Development Bank-Asian Development Bank harmonized list of fragile and post-conflict countries for 2012. Table 1 below shows the list of 47 fragile states in 2012 (OECD, 2013).

Table 1: OECD's List of Fragile States, 2012

| | | | | |
|---------------------|--------------------|-------------------------|-----------------|------------------------|
| Afghanistan | Congo, Republic | Kiribati | Nepal | Sudan |
| Angola | Cote d'Ivoire | Kosovo | Niger | Timor-Leste |
| Bangladesh | Eritrea | Korea, DPR | Nigeria | Togo |
| Bosnia-Herzegovina | Ethiopia | Kosovo | Pakistan | Uganda |
| Burundi | Guinea | Kyrgyz Republic | Rwanda | West Bank & Gaza Strip |
| Cameroon | Guinea-Bissau | Liberia | Sierra Leone | Yemen Republic |
| Central Africa Rep. | Georgia | Malawi | Solomon Islands | Zimbabwe |
| Chad | Haiti | Marshall Islands | Somalia | |
| Comoros | Iran, Islamic Rep. | Micronesia, Fed. States | South Sudan | |
| Congo, Dem. Rep. | Kenya | Myanmar | Sri Lanka | |

Source: OECD, Fragile States 2013: Resource Flows and Trends in a Shifting World.

The OECD/DAC list has served as a framework in identifying fragile states by the international development community in the consideration of aid management – aid allocation, programming, and policy. We used the list as a starting point. To capture the multidimensional nature of state fragility and measure its varying degree of fragility, we use the State Fragility Index (SFI) developed by the Center for Systemic Peace(2014). The SFI rates each country on both *effectiveness* and *legitimacy* in four performance dimensions: security, political, economic, and social. It is the sum of effectiveness and legitimacy scores, for each country.

3. Theories and Policy on State Fragility and Development

State fragility is not the same as conflict and violence but they can exist concurrently. Theory and policy on state fragility, during the period immediately following the end of the cold war, tended to emphasize fragile and failed states as a result of violent conflict and institutional weaknesses. Consequently, there have been attempts to develop theoretical models to explain state failure as a function of civil conflict. Homer-Dixon (1999) and Diehl and Gleditsch (2001) identified environmental and demographic pressures as causes of violence and conflict. Collier (2000) and Collier and Hoeffler (2004) focused on greed, grievances, and exploitation of natural resources to finance conflict as key determinants of failed states.

Easterly and Levine (1997) suggested ethnic and religious fragmentation while Van Hear (1998) found diasporas playing influential role in the onset and course of a war.

The literature on conflict, war, and failed states while important for the understanding of the root causes of state failure and implications of the national security dimension of development, it is too narrow a lens for broader development policy options. From a policy perspective, the broader question is how development policy and assistance can be effective in reducing state fragility to improve the probability of mitigating conflict and to find a path toward sustainable peace and development. It is often too late once violent conflict or war occurred for development assistance to be effective. Costly military interventions are then required, reconstruction and effective development becomes harder, as in the cases of Afghanistan and Iraq.

Another strand of literature initiated by the World Bank suggested that the root causes of terrorism and violent conflict were economic exclusion, poverty and under-development. The World Bank (2004) called this the LICUS initiative (Low Income Countries Under Stress). The World Bank's main focus was to find appropriate policy and strategic responses to improve development effectiveness under difficult circumstances. It is true that many fragile and failed states are poor. But many analysts pointed out that poverty by itself is usually a symptom not necessary a causal factor. Fragile states also exhibit poor service delivery, weak governance and economic institutions, and a high degree of inequity.

Stewart and Brown (2009) proposed a more developmentally oriented approach to consider state fragility. They suggested a three-dimensional definition of state fragility: authority failures, service failures, and legitimacy failures. States may be fragile because they lack authority to protect citizens from violence, unable to provide safety and security leading to lack of political and economic stability. States can also fail because they lack the capacity or unwilling to provide adequate basic services, such as health, water and sanitation, basic education, public safety, and infrastructure. Moreover, state fragility can come from lack of legitimacy. This can come about, for example, because of absence of civil and political liberties, inadequate accountability and stewardship of resources, government control of media, suppression of the opposition, acquisition of power by force rather than through democratic process – in short, failures of democratic and economic governance and accountability.

These three interrelated dimensions of authority, legitimacy, and adequate-service-provision failures constitute state fragility independently or in combination. Stewart and Brown argued that for each dimension, proxy indicators can be established and they can be related to poverty reduction and development.

The view on security and development is converging. Both donors and aid recipients at the 15th replenishment of International Development Association (IDA) agreed that IDA's role in fragile states be addressed as one of the special themes for the replenishment (IDA, 2007). The World Bank devoted its 2011 World Development Report to the issue of conflict, security, and development, emphasizing the changing nature of conflict and violence in the 21st century. It underscored its effects on development (World Bank, 2011). In December 2011, at the Busan (South Korea) High Level Forum on Aid Effectiveness, more than 40 countries and agencies, including the United States and the United Nations Development Group, officially endorsed a new framework to address fragile, conflict-affected and weak-capacity states, many of them still recovering from past conflicts. The framework is called the New Deal for Engagement in Fragile States (OECD, 2011c). The New Deal, which was developed and led by a group of 19 conflict-affected countries, focuses on the global challenges of security, poverty, and development.

As the 2000-15 Millennium Development Goals (MDGs) Agenda is approaching its target date (end of 2015), the international development community has been assessing the progress under the MDG agenda with the purpose of establishing the post-2015 development agenda. One of the goals in the post-2015 development agenda that has been receiving significant attention is the goal of ending (or close to ending) extreme poverty over the next 15 years. A pertinent question is where will extreme poverty likely to be concentrated?

The World Bank's most recent database shows that of the total population of one billion living in extreme poverty, 80 percent is concentrated in sub-Saharan Africa (415 million) and South Asia (399 million), and another 16 percent in East Asia and Pacific (World Bank, online). According to the OECD-DAC, fragile states are home for more than half of this population. Twenty-one of the 47 fragile states listed above are middle-income countries (OECD, 2013). Fragile states are also highly dependent on aid and yet Official Development Assistance (ODA) to these countries was highly volatile, erratic, and on a downward trend according to the OECD-DAC, a scorekeeper of ODA.

To achieve the post-2015 development goal of ending extreme poverty fragile states must be target for support. But they vary in income level, size, and population. Moreover, fragile states characteristically may not be able to use aid effectively because of its weak governance, economic institutions and capacity. Yet, the preventive, potential payoff from development assistance can be significant. In comparison to a much larger body of literature on aid effectiveness for all aid recipients, the literature on aid effectiveness in fragile states is relatively limited, and mostly about individual country case studies. A limited number of case studies while useful, they are not adequate for more general policy guidance on aid allocation and programming.

This poses the challenge for empirical testing of aid effectiveness in fragile states. The next section attempts to undertake an empirical investigation by applying a cluster and robust regression to a set of OECD-DAC-designated fragile states in order to explore the effect of aid on income, per capita income, and on human development, also taking into account the interaction of weak institutional factors, and low absorptive capacity of aid associating with state fragility.

4. An Empirical Analysis of State Fragility and Foreign Aid

4.1 Data and Methodology

We developed a dataset of 26 countries considered to be fragile states according to OECD-DAC. The data came from three sources: World Bank Development Indicators; UN Human Development Index (HDI); OECD-DAC for the level of aid (ODA); and the Center for Systemic Peace for the State Fragility Index.

A cluster analysis was performed using SAS Enterprise Guide Version 5.1. Proc Aceclus was used to preprocess the data and Proc Cluster to hierarchically cluster the observations. The Ward method algorithm was chosen for the hierarchical cluster analysis. In this method, each observation is considered a cluster, and the clusters are hierarchically joined by minimizing the ratio of the variation between clusters to the variation within clusters. Based on statistical analysis, the number of clusters is selected which is then used for k-means cluster analysis.

Variables in the analysis included GDP, GDP per capita, Human Development Index (HDI), Population, foreign aid, authority score, capacity score, fragility score and legitimacy score. Results suggest that three clusters would be appropriate.

4.2 Results and Discussion

Gross Domestic Product (GDP) and population (in that order) are the two highest impact variables in determining the clusters in all models. A principal component analysis was done to determine the impact of the variables. It was determined from the analysis that the first two principal components explain almost all of the variation. Although other score variables were included in the analysis, most of the clustering is done on the basis of these two variables in all models. As can be seen from the Figures 1 and 2, the results indicated that three clusters would be appropriate.

Figure 1: Results from Cluster Analysis

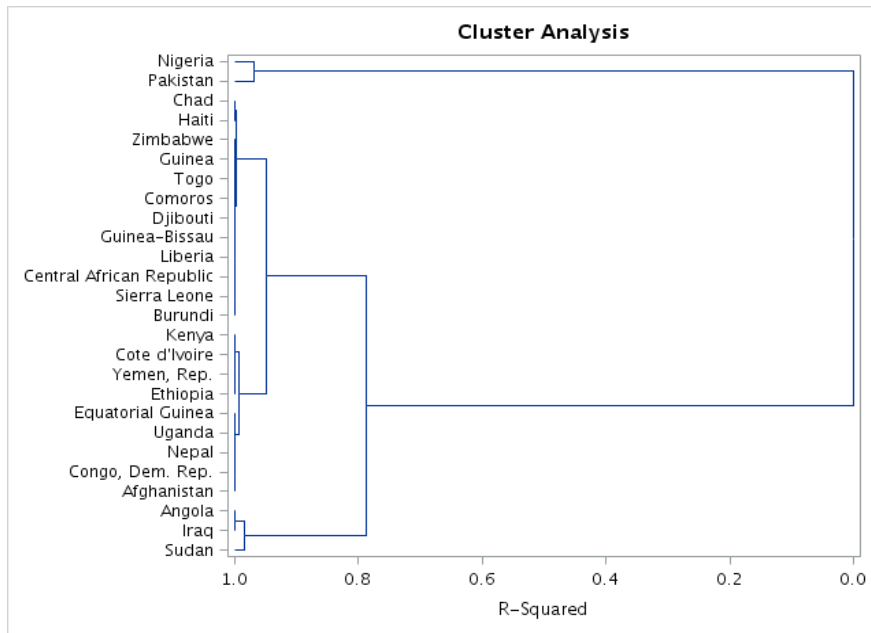
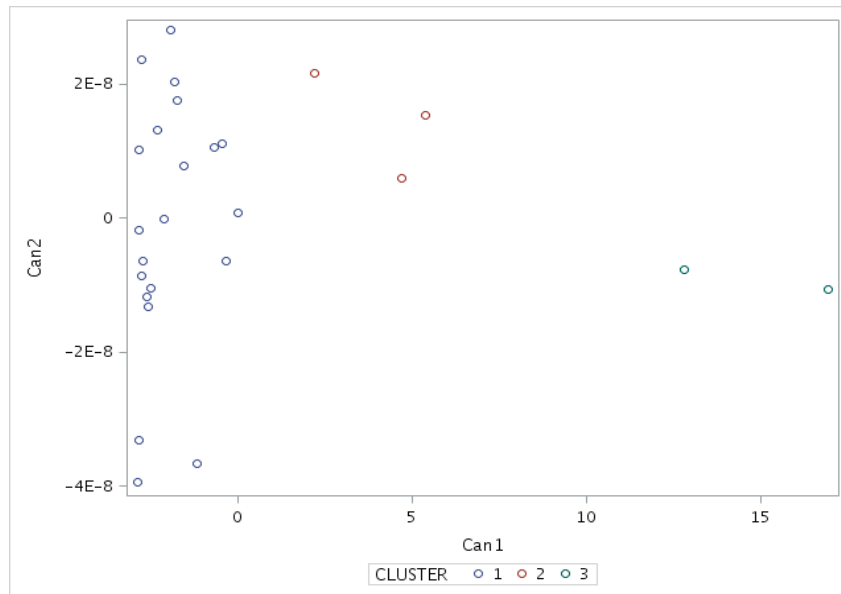


Figure 2: Results from Cluster Analysis



The first cluster grouped Nigeria and Pakistan in one bucket, the second cluster had Iraq, Angola, and Sudan and the third cluster had the remaining 21 countries. Nigeria and Pakistan have the two largest economies (38th and 44th world-wide respectively in 2013 nominal US dollars) and much larger populations (7th and 6th place globally with populations of 188 and 178 million as of July 1, 2014) when compared to other fragile states.

Iraq, Angola and Sudan ranked 9th, 16th and 30th in global oil production in 2013 with production of 2.7, 2.0 and 0.5 million barrels per day (bbl/day) respectively form the second cluster. It could be observed that oil revenues together with their relatively smaller populations would cause these countries to experience a higher Human Development Index (HDI) as it would increase the income per capita component of the HDI index. Nigeria in the first cluster was ranked 10th in oil production producing at 2.5 million bbl/day.

However, its impact on HDI may be far less given its very large population. The third cluster included all the remaining 21 countries which could be considered among the most fragile states in the group.

We ran regressions using ProcRobustReg of SAS Enterprise Guide 9.2 to address problems of heteroskedasticity in the underlying dataset. Robust regression is less affected by violations of assumptions held by OLS regressions.

Our dependent variables in the robust regressions were size of GDP, GDP Per Capita, and HDI. For each of these dependent variables, the model specification had net Official Development Assistance (ODA, foreign aid) lagged 1 period (lag1nodar), net ODA lagged 2 periods (lag2nodar), an interactive term between the Quality of Public Administration and Transparency, Accountability and Corruption in the Public Sector (QPA*TAC = INTQPATAC) and the State Fragility Index (SFI) as explanatory variables. The lagged ODA was used as a proxy indicator of generally observed low degree of absorptive capacity in most fragile states. It is the actual flows of aid that affect the outcome not the commitment of aid. Aid flows lag behind aid commitment and tend to take longer when aid recipient countries have low absorptive capacity. The interactive variable was intended to capture varying institutional factors affecting effectiveness of aid.

The ProcRobustReg procedure was repeated twice more with the panel data from 2005 to 2008. In the second iteration, observations for Pakistan and Nigeria belonging to the first cluster group were removed from the dataset. In the third iteration, observations for cluster one countries Pakistan and Nigeria and cluster 2 countries Angola, Iraq and Sudan were also removed from the panel dataset.

For GDP, for all countries as a whole, the lag1nodar and lag2nodar were highly significant and SFI also had significant influence on GDP. The R-Square was 0.2253. When observations for Pakistan and Nigeria were removed from the data set, the lag1nodar and the intqpatac variables were highly significant in influencing GDP. The R Square was 0.3796. When observations for Pakistan, Nigeria, Angola, Iraq and Sudan are removed, then lag1nodar, intqpatac, and SFI were highly significant in influencing GDP. The R Square was 0.4683

Robustreg Estimation for Gdp

Model 1: All Countries n = 72

R-Square: 0.2253

| Parameter | DF | Estimate | Standard Error | 95% Confidence Limits | | Chi-Square | Pr > ChiSq |
|-----------|----|----------|----------------|-----------------------|----------|------------|------------|
| Intercept | 1 | 8.4104E9 | 7.5033E9 | -6.296E9 | 2.312E10 | 1.26 | 0.2623 |
| NODA_Lag1 | 1 | 16.9520 | 0.6621 | 15.6544 | 18.2496 | 655.63 | <.0001 |
| NODA_Lag2 | 1 | -4.8635 | 0.6278 | -6.0940 | -3.6331 | 60.02 | <.0001 |
| Intqpatac | 1 | 5.7376E8 | 5.5612E8 | -5.162E8 | 1.6637E9 | 1.06 | 0.3022 |
| SFI | 1 | -6.406E8 | 3.0973E8 | -1.248E9 | -3.358E7 | 4.28 | 0.0386 |

Robustreg Estimation for Gdp**Model 2: Model 1 Countries Except Nigeria and Pakistan n = 64****R-Square: 0.3796**

| Parameter | DF | Estimate | Standard Error | 95% Confidence Limits | | Chi-Square | Pr > ChiSq |
|-----------|----|----------|----------------|-----------------------|----------|------------|------------|
| Intercept | 1 | 5.1781E9 | 4.4275E9 | -3.5E9 | 1.386E10 | 1.37 | 0.2422 |
| NODA_Lag1 | 1 | 9.6785 | 1.3081 | 7.1147 | 12.2423 | 54.75 | <.0001 |
| NODA_Lag2 | 1 | -0.9022 | 0.9631 | -2.7899 | 0.9854 | 0.88 | 0.3489 |
| Intqpatac | 1 | 1.652E9 | 3.207E8 | 1.0234E9 | 2.2805E9 | 26.53 | <.0001 |
| SFI | 1 | -8.406E8 | 1.9545E8 | -1.224E9 | -4.575E8 | 18.50 | <.0001 |

Robustreg Estimation For Gdp**Model 3: Model 2 Countries Except Sudan, Angola, and Iraq n = 56****R-Square: 0.4683**

| Parameter | DF | Estimate | Standard Error | 95% Confidence Limits | | Chi-Square | Pr > ChiSq |
|-----------|----|----------|----------------|-----------------------|----------|------------|------------|
| Intercept | 1 | 7.4631E9 | 3.5828E9 | 4.4092E8 | 1.449E10 | 4.34 | 0.0372 |
| NODA_Lag1 | 1 | 9.7929 | 1.2316 | 7.3790 | 12.2068 | 63.22 | <.0001 |
| NODA_Lag2 | 1 | -0.7271 | 0.8652 | -2.4229 | 0.9686 | 0.71 | 0.4007 |
| Intqpatac | 1 | 1.7553E9 | 2.6586E8 | 1.2342E9 | 2.2763E9 | 43.59 | <.0001 |
| SFI | 1 | -1.042E9 | 1.6272E8 | -1.361E9 | -7.233E8 | 41.03 | <.0001 |

For GDP per capita, for all countries as a whole, the SFI had significant influence. The R-Square was 0.0848. When observations for Pakistan and Nigeria were removed from the data set, SFI showed weak significance in influencing the GDP per capita. The R Square was 0.1155. When observations for Pakistan, Nigeria, Angola, Iraq and Sudan are removed, then SFI was highly significant in influencing the GDP per capita. The R Square was 0.2430.

Robustreg Estimation for Gdp per Capita**Model 1: All Countries n = 72****R-Square: 0.0848**

| Parameter | DF | Estimate | Standard Error | 95% Confidence Limits | | Chi-Square | Pr > ChiSq |
|-----------|----|----------|----------------|-----------------------|----------|------------|------------|
| Intercept | 1 | 1254.533 | 377.8049 | 514.0488 | 1995.017 | 11.03 | 0.0009 |
| NODA_Lag1 | 1 | 0.0000 | 0.0000 | -0.0000 | 0.0000 | 2.36 | 0.1247 |
| NODA_Lag2 | 1 | 0.0000 | 0.0000 | -0.0000 | 0.0000 | 1.88 | 0.1700 |
| Intqpatac | 1 | -31.0645 | 28.0017 | -85.9469 | 23.8180 | 1.23 | 0.2673 |
| SFI | 1 | -31.8173 | 15.5955 | -62.3838 | -1.2507 | 4.16 | 0.0413 |

Robustreg Estimation for Gdp per Capita**Model 2: Model 1 Countries Except Nigeria and Pakistan n = 64****R-Square: 0.1155**

| Parameter | DF | Estimate | Standard Error | 95% Confidence Limits | | Chi-Square | Pr > ChiSq |
|-----------|----|----------|----------------|-----------------------|----------|------------|------------|
| Intercept | 1 | 1199.909 | 340.9187 | 531.7204 | 1868.097 | 12.39 | 0.0004 |
| NODA_Lag1 | 1 | 0.0000 | 0.0000 | -0.0000 | 0.04 | 0.04 | 0.8413 |
| NODA_Lag2 | 1 | -0.0000 | 0.0000 | -0.0000 | 0.0000 | 1030 | 0.2546 |
| Intqpatac | 1 | -32.6606 | 24.6940 | -81.0601 | 15.7388 | 1.75 | 0.2546 |
| SFI | 1 | -26.7307 | 15.0495 | -56.2272 | 2.7454 | 3.15 | 0.0757 |

Robustreg Estimation for Gdp per Capita**Model 3: Model 2 Countries Except Sudan, Angola, and Iraq n = 64****R-Square: 0.2430**

| Parameter | DF | Estimate | Standard Error | 95% Confidence Limits | | Chi-Square | Pr > ChiSq |
|-----------|----|----------|----------------|-----------------------|----------|------------|------------|
| Intercept | 1 | 1196.342 | 293.1555 | 621.7675 | 1770.916 | 16.65 | <.0001 |
| NODA_Lag1 | 1 | -0.0000 | 0.0000 | -0.0000 | 0.0000 | 0.21 | 0.6438 |
| NODA_Lag2 | 1 | -0.0000 | 0.0000 | -0.0000 | 0.0000 | 0.18 | 0.6705 |
| Intqpatac | 1 | -18.3287 | 21.7533 | -60.9645 | 24.3070 | 0.71 | 0.3995 |
| SFI | 1 | -33.1065 | 13.3140 | -59.2015 | -7.0115 | 6.18 | 0.0129 |

For HDI, for all countries as a whole, the lag1nodar and SFI had strong significant influence. The R-Square was 0.4935. When observations for Pakistan and Nigeria were removed from the data set, lag1nodar and SFI showed strong significance in influencing HDI. The R Square was 0.5048. When observations for Pakistan, Nigeria, Angola, Iraq and Sudan were removed, then SFI was highly significant in influencing HDI. The R Square was 0.7342.

Robustreg Estimation for HDI**Model 1: All Countries n = 72****R-Square: 0.4935**

| Parameter | DF | Estimate | Standard Error | 95% Confidence Limits | | Chi-Square | Pr > ChiSq |
|-----------|----|----------|----------------|-----------------------|---------|------------|------------|
| Intercept | 1 | 0.6113 | 0.0549 | 0.5038 | 0.7189 | 124.05 | <.0001 |
| NODA_Lag1 | 1 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 5.36 | 0.0206 |
| NODA_Lag2 | 1 | 0.0000 | 0.0000 | -0.0000 | 0.0000 | 0.26 | 0.6128 |
| Intqpatac | 1 | 0.0199 | 0.0140 | -0.0076 | 0.0474 | 2.00 | 0.1571 |
| SFI | 1 | -0.0163 | 0.0020 | -0.0203 | -0.0123 | 63.99 | <.0001 |

Robustreg Estimation for HDI

Model 2: Model 1 Countries Except Nigeria and Pakistan n = 64

R-Square: 0.5048

| Parameter | DF | Estimate | Standard Error | 95% Confidence Limits | | Chi-Square | Pr > ChiSq |
|-----------|----|----------|----------------|-----------------------|---------|------------|------------|
| Intercept | 1 | 0.6548 | 0.0585 | 0.5402 | 0.7694 | 125.42 | <.0001 |
| NODA_Lag1 | 1 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 6.87 | 0.0088 |
| NODA_Lag2 | 1 | -0.0000 | 0.0000 | -0.0000 | 0.0000 | 3.65 | 0.0561 |
| Intqpatac | 1 | -0.0025 | 0.0155 | -0.0328 | 0.0278 | 0.03 | 0.8717 |
| SFI | 1 | -0.0160 | 0.0022 | -0.0204 | -0.0116 | 50.64 | <.0001 |

Robustreg Estimation for HDI

Model 3: Model 2 Countries Except Sudan, Angola, and Iraq n = 56

R-Square: 0.7342

| Parameter | DF | Estimate | Standard Error | 95% Confidence Limits | | Chi-Square | Pr > ChiSq |
|-----------|----|----------|----------------|-----------------------|---------|------------|------------|
| Intercept | 1 | 0.6667 | 0.0382 | 0.5919 | 0.7415 | 305.22 | <.0001 |
| NODA_Lag1 | 1 | 0.0000 | 0.0000 | -0.0000 | 0.0000 | 0.83 | 0.3612 |
| NODA_Lag2 | 1 | -0.0000 | 0.0000 | -0.0000 | 0.0000 | 0.44 | 0.5051 |
| Intqpatac | 1 | 0.0041 | 0.0028 | -0.0015 | 0.0096 | 2.09 | 0.1482 |
| SFI | 1 | -0.0187 | 0.0017 | -0.0221 | -0.0153 | 115.98 | <.0001 |

It is clear from the above analysis, that GDP, GDP per capita and HDI are all influenced significantly through net official development assistance, the interactive effect between the quality of public administration and the transparency, accountability and corruption in the public sector and the state fragility index variables. Net official development assistance works positively through a lag on GDP and HDI. The interactive QPA*TAC works positively on GDP. The state fragility index as anticipated works negatively on GDP, GDP per capita and HDI.

5. Concluding Remarks

Our empirical findings suggest that foreign aid has influence on development in fragile states. This has implications on aid allocation, programming issues, and more generally about policy approach toward enhancedaid effectiveness, particularly in light of the post-2015 development goal of eliminating extreme poverty (UNDP, 2012). First, the World Bank's IDA approach on aid allocation based on a country's per capita income and good policy, as measured by the CPIA scores (Country Policy and Institutional Assessment), may be too limited. It de facto tends to rule out fragile states because of its institutional and policy weaknesses or income level since many of them are middle, not low-income countries (McGillivray, 2006).

Second, rethinking aid through the state fragility lens can be different from using the income lens. The former involves arguably more explicitly on politics and governance; the latter more about the dividing line between poor and middle-income countries.

Furthermore, the crossovers of many poor are concentrated in middle-income countries (Kharas, 2012).

There are always risks associated with relapse and recurring conflicts, weak recovery and long-period of instability, a longer term horizon is called for. Less volatile, predictable aid, and better aid and donor coordination is critical. The state fragility framework would suggest that donors should avoid rushing in with large amount of aid beyond recipient countries' absorptive capacity and create rent-seeking opportunity that can be counterproductive by undermining legitimacy and authority.

Third, aid and development effectiveness is hard to demonstrate at the macro level even under normal developing country situation. The empirical literature on this is at best mixed(Boon, 1996; Burnside and Dollar, 2000; Hansen and Tarp, 2000; Easterly, 2003; Clemens, Radelet, and Bhavnani 2004). It is much harder in the case of fragile states where issues of legitimacy, political commitment, willingness, and weak institutional and human capacity loom large. The literature on aid effectiveness in fragile states and on the factors affecting state fragility remains relatively limited and deserves more research. Nonetheless, it is essential to include the issue of aid effectiveness in any rethinking of foreign aid. The current Paris Declaration on Aid Effectiveness framework (OECD-DAC, 2008) has many shortcomings as evidence by numerous monitoring and evaluation reports (OECD-DAC, 2008 and 2011). It is time to rethink this framework "outside the box" to include issues relevant to state fragility. There has been work in that direction by OECD-DAC (2011b, 2011c, 2013, 2014). The challenge remains in the implementation, in improved aid and donor coordination.

Finally, there is a need to rethink about programming and instruments for delivery of aid. In the years leading to the Paris Declaration on Aid Effectiveness in 2005 and the immediately after that there was a big push toward budget support as a preferred aid delivery instrument, led particularly by the World Bank (Koeberle, Stavreski, and Wallser, 2006), because it is believed that budget support is a better way to nurture and develop aid recipients' ownership and hence more effective than project aid, especially with tied-procurement aid. But general budget support even in situation without state fragility has not been empirically demonstrated to be "more effective aid" than project aid. This is in part because donors have not been able to overcome their own failure of aid conditionality that tends to accompany budget support. And, if conditionality is required it undermines the ownership argument.

In the case of fragile states where the most likely concerns are beyond economic management into politics and governance. Budget support can still arguably be effective under certain conditions. Project aid to support reconstruction or strengthen governance institutions to improve the quality of public administration, transparency, accountability, and government capacity to deliver basic services and infrastructure should be of higher-order of priority in the rethinking of foreign aid.

References

- Boone, P. (1996). Politics and the Effectiveness of Aid. *European Economic Review*, 40 (2): 289-329.
- Burnside, C. and Dollar, D. (2000). Aid, Policies, and Growth. *American Economic Review*, 90 (4): 847-68.
- Center for Systemic Peace (2014). Virginia: Center for Systemic Peace. Available: <http://www.systemicpeace.org/inscrdata.html>
- Cament, D. and Prest, S. (2006). Assessing the Circumstances and Forms of Canada's Involvement in Fragile States. Ottawa: Carleton University. Available: <http://www4.carleton.ca/cifp/app/serve.php/1142.pdf>
- Clement, M, Radelet, S., and Bhavnani R. (2004). Counting Chickens when They Hatch: The Short-term Effect of Aid on Growth. CGD Working Paper 44. Washington: Center for Global Development
- Collier, P. (2000). Economic Causes of Civil Conflict and Their Implications for Policy. Washington: World Bank.
- Collier, P. and Hoeffler, Anke (2002). Aid, Policy, and Growth in Post-Conflict Societies. Policy Research Working Paper 2902. Washington: World Bank Development Research Group.
- Collier, P., and A. Hoeffler (2004). Greed and Grievance in Civil War. *Oxford Economic Papers*, 56 (4): 563-95.
- Collier, P. and Soderbom, Mans (2007). Post Conflict Risk. London: University of Oxford.
- Diehl, P.F., and N. P. Gleditsch (2001). *Environmental Conflict*. Boulder: Westview.
- Easterly, W., and R. Levine (1997). Africa's Growth Tragedy: Policies and Ethnic Divisions. *Quarterly Journal of Economics*. 112 (4): 1203-50.
- Easterly, W. (2003). Can Foreign Aid Buy Growth? *Journal of Economic Perspectives*, 17 (3): 23-48.
- Hansen, H. and Tarp, F. (2000). Aid Effectiveness Disputed. *Journal of International Development*, 12 (3): 375-98.
- Homer-Dixon, T.F. (1999). *Environment, Scarcity, and Violence*. Princeton: Princeton University Press.
- Kharas, Homi (2012). *Horizon 2025: Creative Destruction in the Aid Industry*. Overseas Development Institute: London.
- Koeberle, S., Stavreski, Z., and Walliser, J. (2006). Budget Support as More Effective Aid? World Bank: Washington, D.C.
- Marshall, M. and Cole, B. *Global Report 2014: Conflict, Governance, and State Fragility*, Center for Systemic Peace. Available: <http://www.systemicpeace.org/vlibrary/GlobalReport2014.pdf>
- Mata, J.F. and Ziaja, S. (2009). User's Guide on Measuring Fragility. UNDP and German Development Institute. Available: http://www.undp.org/content/undp/en/home/librarypage/democratic-governance/oslo_governance_centre/governance_assessments/a_users_guide_tofragility.html
- McGillivray, M. (2006). *Aid Allocation and Fragile States*. Helsinki: UNU-WIDER. Available: http://www.wider.unu.edu/publications/working-papers/discussion-papers/2006/en_GB/dp2006-01/
- Mosley, P. (1980). Aid, Savings, and Growth Revisited. *Oxford Bulletin of Economics and Statistics*, 42 (2): 79-95.
- Organization for Economic Development Co-operation and Development (2008). *The Paris Declaration on Aid Effectiveness and the Accra Agenda for Action*. Available: <http://www.oecd.org/dac/effectiveness/34428351.pdf>
- Organization for Economic Co-operation and Development (2011a). *Aid Effectiveness 2011: Progress in Implementing the Paris Declaration*. OECD, Paris. Available: <http://www.oecd.org/dac/effectiveness/2011surveyonmonitoringtheparisdeclaration.htm>
- Organization for Economic Co-operation and Development (2011b). *International Engagement in Fragile States: Can't We Do Better*. OECD: Paris. Available: <http://www.oecd.org/development/incaf/48697077.pdf>
- Organization for Economic Co-operation and Development (2011c). *The Busan High Level Forum on Aid Effectiveness*. OECD: Paris. Available: <http://www.oecd.org/dac/effectiveness/Final%20file.pdf>
- Organization for Economic Co-operation and Development (2013). *Fragile States 2013: Resource Flows and Trends in a Shifting World*. OECD, Paris. Available: <http://www.oecd.org/dac/incaf/FragileStates2013.pdf>
- Organization for Economic Development Co-operation and Development (2014). *Fragile States 2014: Domestic Revenue Mobilization in Fragile States*. Paris: OECD. Available: <http://www.oecd.org/dac/incaf/FSR-2014.pdf>
- Stewart, F., and G. Brown (2009). *Fragile States*. London: University of Oxford. Available: <http://r4d.dfid.gov.uk/PDF/Outputs/Inequality/wp51.pdf>

- United Nations Development Program (2012). New Partnerships to Implement a Post-2015 Development Agenda. New York: United Nations. Available: http://www.un.org/en/development/desa/policy/untaskteam_undf/global_partnerships.pdf
- United Nations Development Program (2014). Human Development Index. New York: United Nations. Available: <http://hdr.undp.org/en/content/human-development-index-hdi>
- US Agency for International Development (2005a). The USAID Fragile States Assessment Framework, 2005. Available: http://pdf.usaid.gov/pdf_docs/PNADY528.pdf
- US Agency for International Development (2005b). Measuring Fragility: Indicators and Methods for Rating State Performance. Available: http://pdf.usaid.gov/pdf_docs/pnadd462.pdf
- Van Hear, N. (1998). New Diasporas: The Mass Exodus, Dispersal and Regrouping of Migrant Communities. Seattle: University of Washington Press.
- World Bank (2004). Evaluation of World Bank Support to Low-Income Countries Under Stress (LICUS). Available: http://siteresources.worldbank.org/INTCDRC/Resources/OED_Approach_Licus.pdf Washington: World Bank.
- World Bank (2007). International Development Association, "Operational Approaches and Financing in Fragile States. Washington: World Bank.
- World Bank (2011a). Country Policy and Institutional Assessments, 2011 Assessment Questionnaire. Washington: World Bank. Available: <http://www.worldbank.org/ida/papers/CPIAcriteria2011final.pdf>
- World Bank (2011b). World Development Report, 2011: Conflict, Security, and Development. Washington: World Bank.
- World Bank (2014a). World Development Indicators. Available: <http://databank.worldbank.org/data/views/variableselection/selectvariables.aspx?source=world-development-indicators>
- World Bank (2014b). PovcalNet. Washington: World Bank. Available: <http://iresearch.worldbank.org/PovcalNet/index.htm?1>