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THE MATERIAL AND POLITICAL BASES OF LIVED POVERTY IN AFRICA: INSIGHTS FROM THE AFROBAROMETER

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Abstract

The Afrobarometer has developed an experiential measure of lived poverty (how frequently people go without basic necessities during the course of a year) that measures a portion of the central core of the concept of poverty not captured by existing objective or subjective measures. Empirically, the measure has strong individual level construct validity and reliability within any cross national round of surveys. Yet it also displays inconsistent levels of external validity as a measure of aggregate level poverty when compared to other objective, material measures of poverty or well being. Surprisingly, however, we find that lived poverty is very strongly related to country level measures of political freedom. This finding simultaneously supports Sen's (1999) arguments about development as freedom, corroborates Halperin et al's (2005) arguments about the "democracy advantage" in development, and increases our confidence that we are indeed measuring the experiential core of poverty.

Introduction

The Afrobarometer's central concern has been to describe and explain Africans' understanding of and commitment to political and economic reform. Given the prominence of scholarly hypotheses about the central impact of poverty and destitution on the prospects of democratization and liberalization, it was vital that the Afrobarometer contained a valid, reliable and efficient measure of poverty with which to test these propositions. Thus, we developed the Lived Poverty Index (LPI) in order to produce an individual level measure of poverty that was both valid and reliable, but that could also be easily administered without questioning about household income, assets, expenditure or access to services.

The Afrobarometer

The Afrobarometer is a systematic, cross-national survey of public attitudes in sub-Saharan Africa. It is a scientific project dedicated to accurate and precise measurement of the attitudes of nationally representative samples of African populaces. Given its substantive focus on attitudes about democracy, markets and civil society, it is also a policy relevant project that attempts to insert results into national and global policy discussions through proactive dissemination and outreach. The project has been run as a network comprising three core partners (the Institute for Democracy in South Africa (Idasa), the Ghana Centre for Democratic Development (CDD-Ghana) and Michigan State University) and 18 African national research partners from universities, non-governmental organizations and private research firms.[1]

The Afrobarometer is conducted in "reforming" African countries: generally, multi-party regimes that have had a founding democratic election, or a re-democratizing election. Round 1 surveys were conducted in 12 countries between mid-1999 and mid-2001 in West Africa (Ghana, Mali and Nigeria), East Africa (Uganda and Tanzania) and Southern Africa (Botswana, Lesotho, Malawi, Namibia, South Africa, Zambia and Zimbabwe). Round 2 was done in 16 countries between mid 2002 and late 2003, repeating the original 12 (Zimbabwe could only be done in early 2004 due to political tensions) and adding Cape Verde, Kenya, Mozambique, and Senegal. Round 3 was conducted in 18 countries between February 2005 and February 2006, adding Madagascar and Benin.

[1] The first three rounds of research, analysis and dissemination have been supported by the Swedish International Development Cooperation Agency, United States Agency for International Development, Netherlands Ministry of Foreign Affairs, Norwegian Agency for Development Cooperation, Royal Danish Ministry of Foreign Affairs, World Bank, United Kingdom Department for International Development, Danish Governance Trust Fund at the World Bank, Royal Dutch Embassy in Namibia, Calouste Gulbenkian Foundation, Trocaire Regional Office for Eastern Africa, Michigan State University, African Development Bank, U.S. National Science Foundation and Konrad Adenauer Stiftung.

Table 1: Afrobarometer Surveys, 1999-2006

	Round 1		Round 2		Round 3	
	Fieldwork Dates	Sample Size	Fieldwork Dates	Sample Size	Fieldwork Dates	Sample Size
Botswana	Nov-December 1999	1200	July-August 2003	1200	May-June 2005	1200
Ghana	July-August 1999	2004	Aug-September 2002	1200	March 2005	1197
Lesotho	April-June 2000	1177	February-April 2003	1200	July-August 2005	1161
Malawi	Nov-December 1999	1208	April-May 2003	1200	June-July 2005	1200
Mali	January-February 2001	2089	Oct-November 2002	1283	June-July 2005	1244
Namibia	Sept-October 1999	1183	Aug-September 2003	1200	February-March 2006	1200
Nigeria	January-February 2000	3603	Sept-October 2003	2400	Aug-December 2005	2363
South Africa	July-August 2000	2200	Sept-October 2002	2400	February 2006	2400
Uganda	May-June 2000	2271	Aug-September 2002	2400	April-May 2005	2400
Tanzania	March-May 2000	2198	July-August 2003	1200	July-August 2005	1304
Zambia	Oct-November 1999	1198	June-July 2003	1200	July-August 2005	1200
Zimbabwe	Sept-October 1999	1200	April-May 2004	1200	October 2005	1048
Cape Verde			May-June 2002	1268	March-April 2005	1256
Mozambique			August-October 2002	1400	June 2005	1198
Kenya			Aug-September 2003	2400	September 2005	1278
Senegal			Nov-December 2002	1200	Sept-October 2005	1200
Madagascar					May-June 2005	1350
Benin					April-May 2005	1198

All Afrobarometer surveys are conducted through personal, face-to-face interviews of random, clustered, stratified and proportionate samples of citizens 18 years of age and older. Samples are drawn based on the most recent census data through a four stage process that randomly samples (1) census enumerator areas, (2) interviewer start points, (3) households, and (4) respondents. Sampling frames are constructed in the first stages from the most up-to-date census figures or projections available, and thereafter from census maps, systematic walk patterns, and project-generated lists of household members. The minimum sample size of 1200 provides an average margin of sampling error of approximately +/- 3 percentage points (2.8 points). Larger samples of at least 2,400 are regularly drawn in more diverse societies like South Africa and Nigeria in order to obtain more precise estimates of sub-national variations. Disproportionate sampling is sometimes used for the purposes of drawing over-samples amongst numerically small but politically important groups like Indian and Coloured respondents in South Africa, or the residents of Zanzibar in Tanzania. Because interviews are conducted in the language of the respondents' choice, the questionnaire is translated into all local languages covered by the drawn sample, interviewers are selected based on their fluency in local languages, and a strong emphasis is placed on interviewer training.

A caveat is in order about our ability to generalise. Not only is each country sample drawn independently, but many sub-Saharan countries are not represented. Thus, the findings reported here may not be able to be extended to large parts of Francophone Africa, to the continent's remaining authoritarian regimes, or to "fragile states" that are imploding through civil war. If we occasionally refer to "Africans" we have a more limited populace in mind.

Poverty and Democracy

As suggested at the outset to this article, political scientists have widely regarded the prospects for successful political democratization and economic liberalization in Africa as remote, due principally to the impact of widespread poverty and destitution (Ake, 1996). In fact, one of the clearest findings of empirical political science is that the prospects of sustaining democratic government in a poor society are far lower than in a relatively wealthy one (Lipset, 1959; Bollen and Jackman, 1989; Przeworski et al, 2000). Precisely why poverty undermines democracy, however, has been much less clear.

Some scholars locate the linkage primarily at the macro level, arguing that poor societies constitute particularly infertile soil in which to consolidate democracy. They usually lack a sizable middle class, and may be less able to ameliorate clashes over resources by distributing wealth more widely and equitably (Huntington, 1991). The lack of modernization, particularly in terms of schools and news media, may also create insufficient cultural support for basic principles such as tolerance and self-expression (Inglehart and Welzel, 2005). And poorer societies may also simply be less able to provide the resources necessary for effective political institutions, ranging from legislatures, to electoral administration commissions, to policy planning staff.

Others locate the problem at the micro level. Some scholars have argued that poor Africans focus on, and prioritize substantive policy outcomes, rather than decision-making procedures (Ake, 1996), or that they have unrealistic expectations of democracy (Johnson & Schlemmer, 1996). Poor people might also have less reason to care about, or more simply less time to devote to the types of activities that give life to democracy, such as voting, joining with others to voice their preferences to government, or contacting elected representatives themselves.

Still others have completely reversed the causal arrow, arguing that democracy and freedom breed development. Przeworski et al's (2000) major study of the linkages of development and democracy between 1950 and 1990 failed to find any difference between the subsequent development trajectories of democracies and autocracies. But by extending the scope of analysis to the end of the 1990s, and by using a more precise measure of democracy, Halperin et al (2005) have produced important evidence of a "democracy advantage" whereby democracies, at all levels of material wealth, are more likely to increase quality of life (e.g. growth, as well as better health, education and food production), and more democratic countries are better able to do so than less democratic countries.

Measuring Lived Poverty

Economists usually measure poverty with data collected from national accounts (such as Gross Domestic Product), or through population surveys of whole societies (national censuses) or dedicated surveys of representative samples of households. The typical demographic or socio-economic household survey usually contacts a relatively large sample (often 10,000 or more) and interviews an informant who provides objective information about the economic conditions and

behaviours of the household. They generally devote an extensive questionnaire to measuring household income, assets, expenditure and access to services. The range of subjects covered by such questionnaires has expanded gradually over the past two decades, in step with the burgeoning conceptualization of poverty, a process that has often been spurred by researchers working in developing country contexts dissatisfied with a narrow focus on money metric measures. Researchers have attempted to develop a more multi-faceted definition that includes many aspects of well-being and inequality that better reflects the lived experiences of people, especially the poor. The best expression of this trend can be seen in the definition used by the 1995 World Summit on Social Development in Copenhagen.

> "Poverty has various manifestations, including lack of income and productive resources sufficient to ensure sustainable livelihoods; hunger and malnutrition; ill health; limited or lack of access to education and other basic services; increased morbidity and mortality from illnesses; homelessness and inadequate housing; unsafe environments and social discrimination and exclusion. It is also characterised by a lack of participation in decision-making and in civil, social and cultural life … Absolute poverty is a condition characterised by severe deprivation of basic human needs, including food, safe drinking water, sanitation facilities, health, shelter, education, and information. It depends not only on income but also on access to services."

Accordingly, researchers have built various indices that add to, or substitute for income data by measuring aspects such as life expectancy, caloric intake, height and weight, formal education, literacy, employment, quality of housing, and access to services. Others have developed more subjective measures of exclusion and deprivation. Yet many of the things measured in the name of a broader, more multi-dimensional notion of poverty, are in fact, not poverty, but closely related antecedents or consequences of poverty (Mattes, Bratton & Davids, 2002).

However, it is very difficult to accommodate either the broader or the narrower approaches to poverty measurement in a typical social science attitude survey. While there are, of course, many commonalities between the usual socio-economic and demographic household survey and an attitude survey like the Afrobarometer, there are also many important differences. Public opinion surveys usually contact a relatively small sample of households (generally between 1,200 and 2,400), interview a randomly selected member of a household, and focus on subjective preferences, beliefs and values. And because public opinion surveys devote most

of their questionnaire space to measuring attitudes, it is not possible to devote the kind of time to measuring the extensive range of economic conditions and activities included in socio-economic surveys.

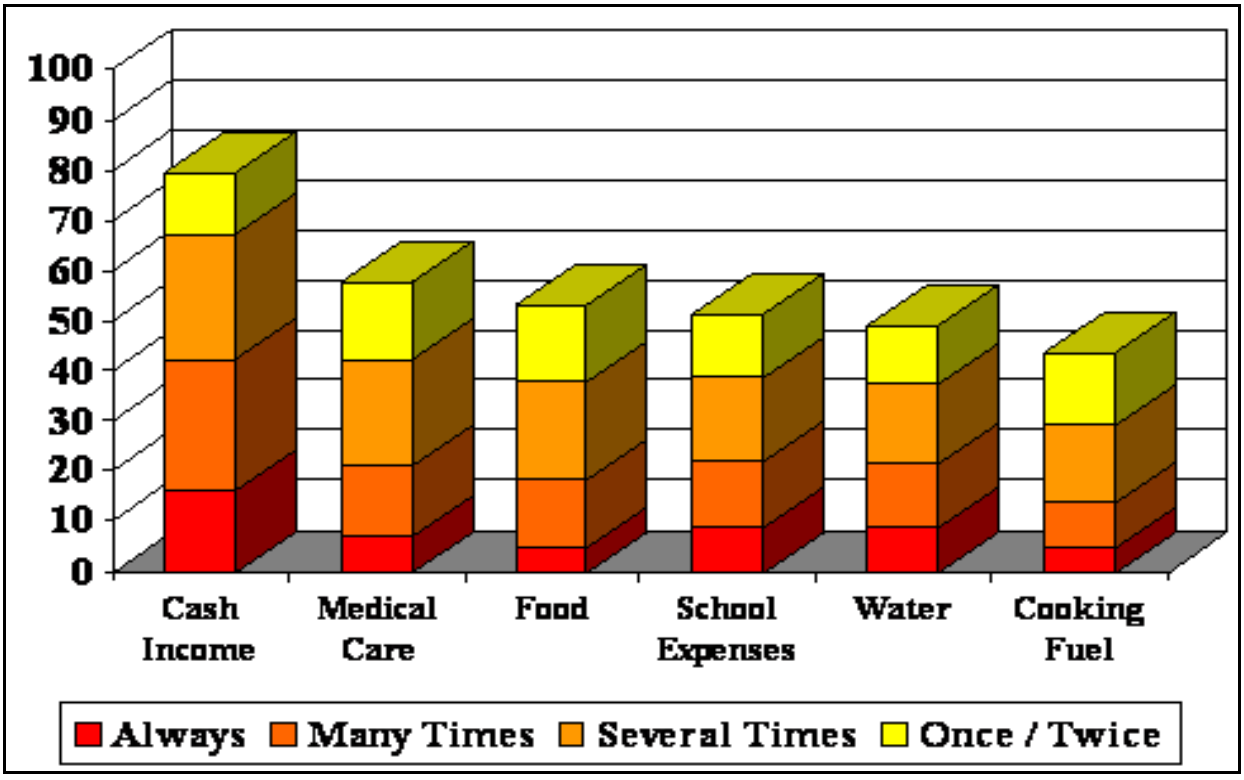
Thus the Afrobarometer needed to develop a measure of poverty that could be gathered from the sampled respondent (rather than generated from a household informant through a roster of items about household activities). Respecting the central tenet of modern economics, that people are the best judges of their own interest, we assumed that respondents were best placed to tell us about their quality of life, though they might not be able to provide the kind of precision economists desire. We also needed a measure that focussed efficiently and directly on the central, core aspect of poverty, namely the rate at which people actually go without the basic necessities of life. Thus we adopted and developed a small experiential battery of items first asked in the New Russia Barometer (Rose, 1998) that did exactly this.

The root of the Afrobarometer battery of questions reads: "Over the past year, how often, if ever have you or your family gone without _____?" The interviewer then repeats the question for each of the following basic necessities: "Enough food to eat?" "Enough clean water for home use?" "Medicines or medical treatment?" "Enough fuel to cook your food?" "A cash income?" And "School expenses for your children (like fees, uniforms or books)?" However, while people may be the best judges of their own well-being and quality of life, survey researchers need to avoid forcing respondents to report their recalled experiences at an inappropriately fine level of precision. Thus, rather than asking people to provide us some ratio level answer, such as the number of days out of 365, or the number of weeks out of 52, we simply provide an ordinal level response scale with the options: "Never," "Just Once or Twice," "Several Times," "Many Times," or "Always"?

The responses to these items in Round 3 surveys demonstrate that "Lived Poverty" is extensive across the 18 African countries surveyed between February 2005 and February 2006. In every country, the most commonly reported shortage (as measured by those who had gone without at least once) was a cash income. This aspect of poverty was followed by shortages of medical care, food, school expenses, clean water, and cooking fuel, in that order (Figure 1). While the average (median) African went without a cash income "several times" over the previous year, the typical experience with food, medical treatment and school expenses (among those with children in the family) was to have experienced "just one or

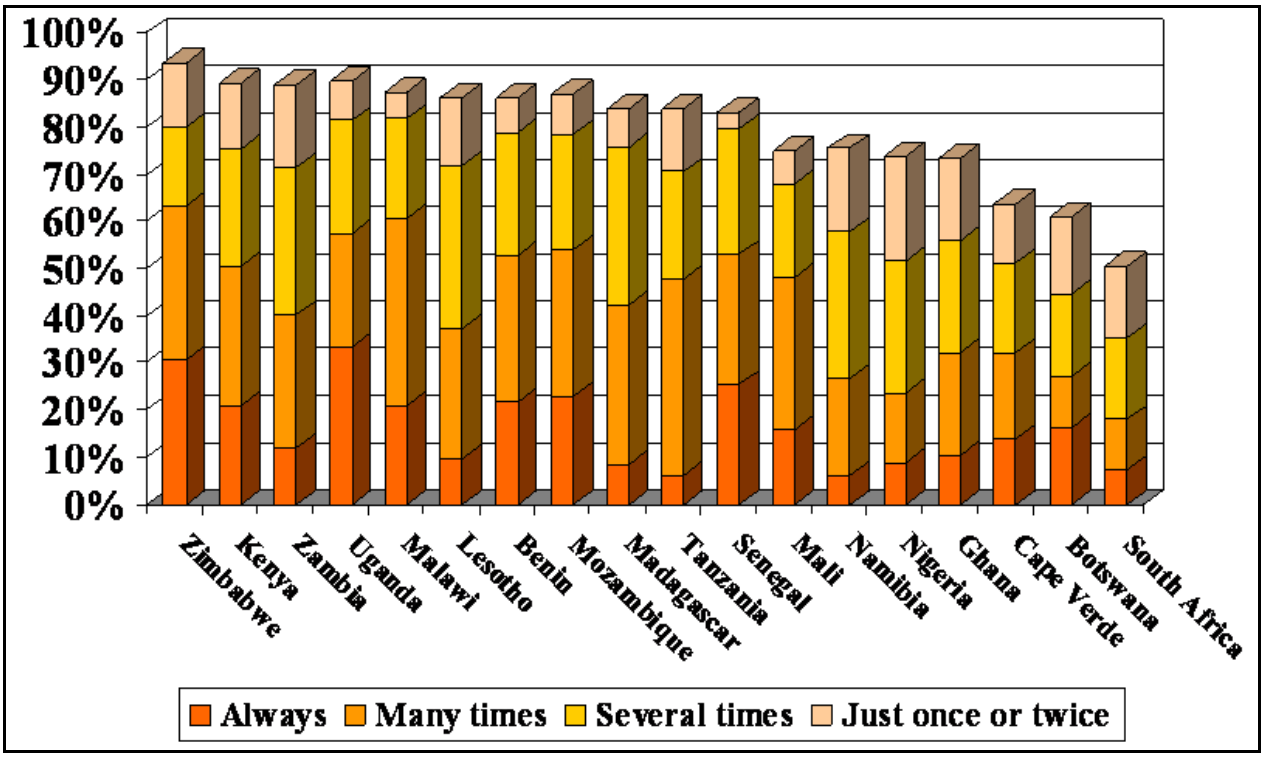
two" shortages. The average (median) African said she "never" went without clean water, or home cooking fuel.

Figure 1: Lived Poverty across 18 African Countries (2005-2006)



However, these items also find substantial cross national variation across each basic necessity. For example, while three quarters of all respondents say they experienced at least one shortfall in cash income over the past year, the figure ranges from a low of one half (50 percent) of South Africans to virtually all (94 percent) Zimbabweans (Figure 2).

Figure 2: Lived Poverty, 2005-2006 (Cash Income)



Validity and Reliability

Yet it is possible to elicit responses to a set of just about any survey items. The important question is whether the combined responses tap a common underlying concept that we can call "lived poverty." There are several different logical and empirical criteria for establishing this. First of all, we believe that the index has a high degree of *face validity* (or the extent to which an indicator measures the concept for which it is intended). If Amartya Sen (1999) is right and the value of one's standard of living lies in the living itself, an experiential measure of shortages of basic necessities of life takes us directly to the central core of what the concept of poverty is all about. We also believe that by tapping a range of necessities, our measure offers an acceptable level of *content validity* (the extent to which a measure taps the full breadth of a concept).

But beyond these logical criteria, there is impressive empirical evidence of the internal *construct validity* of our battery of items. Previous research established the validity and reliability of the scale in Round 1 surveys in seven (Mattes, Bratton

and Davids, 2002; and Bratton and Mattes, 2003) and eleven countries (Bratton, Mattes & Gyimah-Boadi, 2005), and Round 2 surveys in 15 countries (Bratton, 2006). Turning to the Round 3 data for 18 countries, factor analysis (which measures the extent to which the components of an index appear to tap a common underlying theoretical concept) extracts a single unrotated factor from the 25,359 responses to the five items that explains 53.5 percent of the common variance across all items[2]. Shortages in medical treatment most strongly define this factor (as expressed by the factor loadings, or the correlation between each variable and the extracted factor), and shortages of clean water the least. However, the range between the two is relatively small. Taken together, these results strongly suggest that all items tap a single underlying concept of "lived poverty," and that they tap a reasonably diverse spread of experiences within that concept. The responses also demonstrate a high degree of *reliability* or internal consistency. Cronbach's Alpha, which expresses the average inter-item correlation, is quite high at .78 (with .6 usually being the minimal cut off point in large surveys of diverse populations) (Table 2).

Not only are validity and reliability measures quite strong for the total 18 country sample in Round 3, they are very consistent *across all country samples* (Table 2). Factor analysis extracted a single, unrotated factor within each country sample, and the percentage of common variance explained by the extracted factor ranged from a low of 42.3 percent in Mozambique to a high of 64.5 percent in Nigeria. While the rank-ordering of the factor loadings shows more cross national variance, this simply demonstrates that lived poverty manifests itself in slightly different ways in differing national contexts.

[2] The item on school expenses was excluded since 18 percent of all respondents could not answer because they either had no children or there were none in the family.

Table 2: Validity and Reliability of Lived Poverty Index (Afrobarometer Round 3 Surveys, Circa 2005)

	Total	Ben	Bot	CV	Gha	Ken	Les	Mad	Mlw	Mal	Moz	Nam	Nig	Sen	SAfr	Tan	Uga	Zam	Zim
Eigenvalue	2.67	2.25	2.53	3.02	2.70	2.75	2.30	2.25	2.25	2.18	2.11	2.98	3.22	2.90	3.12	2.17	2.74	2.76	2.39
% Variance Explained	53.4	45.0	50.5	60.3	53.9	55.0	46.1	45.0	45.1	43.6	42.3	59.6	64.5	58.0	62.5	43.4	54.7	55.1	47.8
Factor Loadings																			
Health Care	.74	.77	.61	.75	.75	.76	.69	.60	.58	.72	.63	.72	.79	.80	.73	.65	.77	.70	.55
Cash	.67	.58	.53	.74	.60	.63	.72	.70	.64	.60	.43	.61	.70	.62	.76	.64	.64	.65	.67
Food	.66	.65	.61	.60	.59	.68	.60	.65	.55	.56	.47	.70	.71	.71	.71	.54	.69	.74	.79
Fuel	.60	.40	.71	.81	.62	.59	.53	.39	.49	.48	.46	.73	.77	.71	.79	.42	.66	.61	.32
Water	.57	.36	.63	.65	.70	.65	.27	.42	.54	.33	.64	.77	.75	.62	.65	.45	.54	.61	.585
Reliability	.78	.67	.74	.83	.78	.79	.68	.69	.69	.66	.66	.83	.86	.82	.85	.66	.79	.79	.72
N=	25,359	1182	1200	1256	1195	1275	1157	1349	1197	1244	1197	1198	2363	1195	2400	1303	2400	1200	1048

All tests extracted a single unrotated dimension
Reliability measured with Cronbach's Alpha

Furthermore, the factor analysis and reliability analysis results appear quite stable *across rounds of surveys*. A factor analysis of these same items included in the Round 2 also extracted a single unrotated factor, with the exact same rank ordering in the factor loadings of each of the five items as in Round 3 (Table 3a). Because there were some differences in the content and wording of Round 1 questionnaires across countries, it is not possible to conduct a similar analysis of the five item scale. I thus recalculated a three item scale (water, food and medical treatment) that could be compared for 11 countries across the three rounds (Table 3b) as well as a 5 item scale that could be compared for seven countries across all three rounds (Table 3c). All scales produce a single unrotated factor, have relatively similar factor loadings of the various components, and have a sufficiently high level of reliability (with the possible exception of the three item scale in Round 1, which is due largely to the fact that some of the countries used differing numbers of response categories).

Table 3: Over Time Validity and Reliability of Lived Poverty Index

Table 3a. Five Item Scale Over Time for 16 Countries

	Round 1	**Round 2**	**Round 3**
Eigenvalue	X	2.43	2.73
Variance Explained	--	48.7%	54.6%
Factor Loadings			
Health Care	--	.714	.738
Cash Income	--	.635	.670
Food	--	.631	.664
Home Fuel	--	.514	.619
Water	--	.494	.594
Reliability	--	.73	.79
N =	--	23,787	22,828

Table 3b. Three Item Scale Over Time for 11 Countries

	Round 1	Round 2	Round 3
Eigenvalue	1.66	1.76	1.87
% Variance Explained	55.2%	58.8%	62.5%
Factor Loadings			
Health Care	.631	.790	.750
Food	.658	.565	.633
Water	.438	.511	.604
Reliability	.59		.698
N =	19,067	15,224	15,510

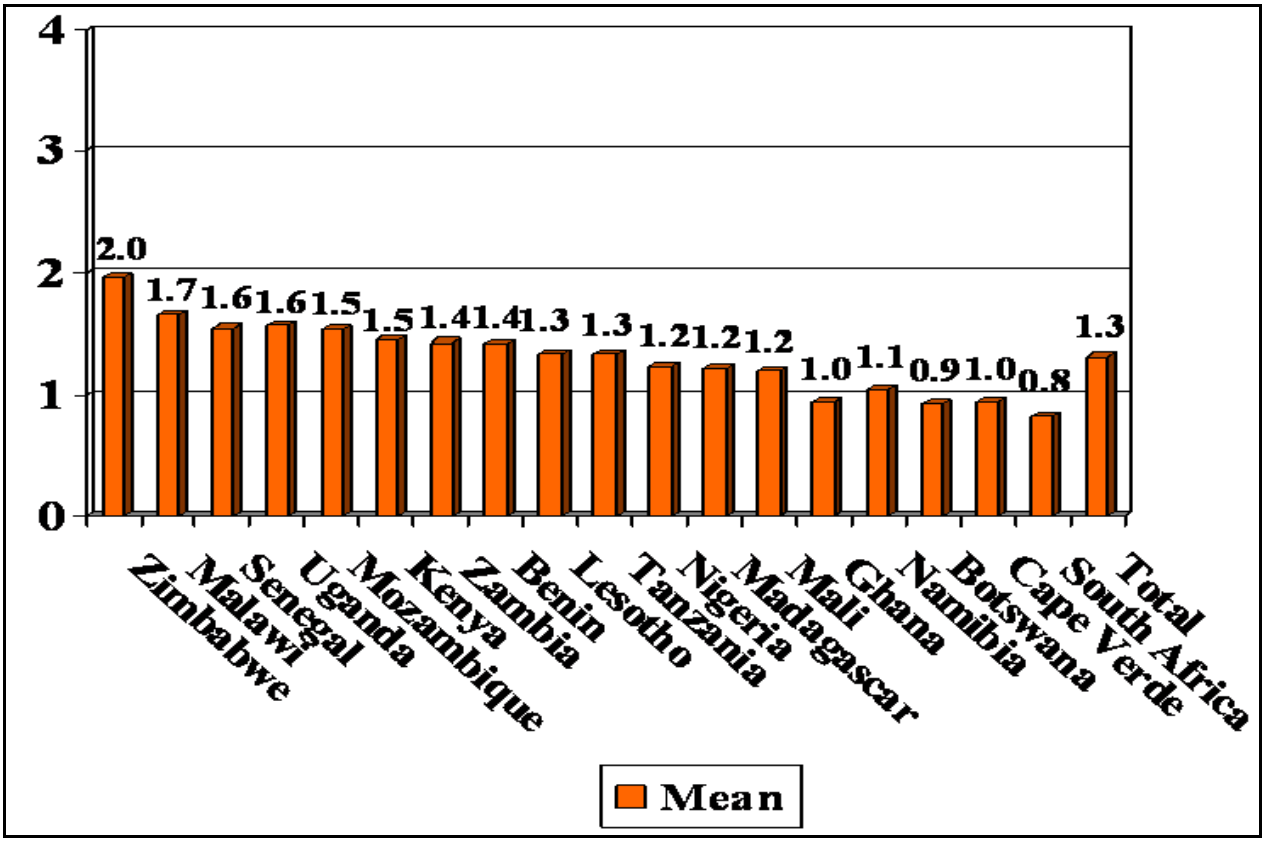
Table 3c. Five Item Scale Over Time for Seven Countries

	Round 1	Round 2	Round 3
Eigenvalue	2.45	2.57	2.77
% Variance Explained	49.1%	51.4%	55.5%
Factor Loadings			
Cash Income	.713	.707	.726
Food	.667	.733	.708
Health Care	.612	.665	.700
Water	.496	.487	.600
Fuel	.515	.525	.593
Reliability	.74	.76	.80
N =	8,949	9,373	9,400

Based on this knowledge, we can then safely create a Lived Poverty Index (LPI) and calculate an index score for each individual and for each country on a five point scale that runs from 0 (which can be thought of as no lived poverty) to 4 (which would be complete lived poverty, or constant absence of basic necessities). The mean level of Lived Poverty across all 18 countries is 1.3 with a substantial cross national variation around that mean that ranges from 1.96 in Zimbabwe to 0.82 in South Africa.[3]

[3] National differences account for .095 percent of the variance in Lived Poverty (Eta = 308).

Figure 3: Average Lived Poverty, 2005-2006
(5 Point Scale, 5 Dimensions)



We have thus far shown that people who report shortages on one aspect tend to go without other aspects. But to what extent does the data produced by the LPI predict, or correlate with other widely used indicators of poverty or other theoretically associated concepts (what is referred to as "*criterion validity*")? Previous research demonstrates important linkages at both the micro- and macro-levels. At the micro level, respondents' levels of lived poverty decrease predictably with increasing levels of formal education, employment (Mattes, Bratton & Davids, 2002; Bratton & Mattes, 2003) or income (Bratton, 2006). Respondents' subjective self-placement on a ladder of well-being also increases as their lived poverty decreases (Bratton, 2006).

Controlling for the simultaneous impact of other relevant variables, lived poverty shapes a range of political preferences. It increases respondent's sense of relative deprivation (Bratton and Mattes, 2003), and decreases their approval of government management of the economy (Bratton and Mattes, 2003), their support

for private provision of development services (Bratton and Mattes, 2003), and their support for economic reform (Bratton and Mattes, 2003; Bratton, Mattes & Gyimah-Boadi, 2005). However, it has little impact on their policy priorities (Mattes, Bratton & Davids, 2002), and no impact on whether they hold a procedural (e.g. free speech) or substantive understanding (e.g. a small income gap) of democracy (Mattes, Bratton & Davids, 2002), or on their commitment to democratic reform (Bratton, Mattes & Gyimah-Boadi, 2005; Mattes & Bratton, 2007).

However, lived poverty has a range of less predictable consequences for democratic citizenship. Unsurprisingly, it decreases people's use of the news media (Mattes, Bratton & Davids, 2002), but it has little impact on their interest in politics, sense of political efficacy or trust in other citizens (Mattes, Bratton and Davids, 2002; Bratton, 2006). In fact, the poor are more likely to take part in community affairs, contact officials and informal leaders, and vote (Mattes, Bratton & Davids, 2002; Bratton, 2006).

Across seven Round 1 Southern African countries, the poor are more likely to protest (Mattes, Bratton & Davids, 2002), but there was no visible impact across all Round 1 surveys (Bratton, Mattes & Gyimah-Boadi, 2005). Country studies have found conflicting results reflecting differing national political circumstances. In South Africa, poverty is a strong indicator of participation in local community politics and protest (Mattes, 2008). In Zimbabwe, however, the poor are some of the least likely to take part in protest (Mpani, 2007).

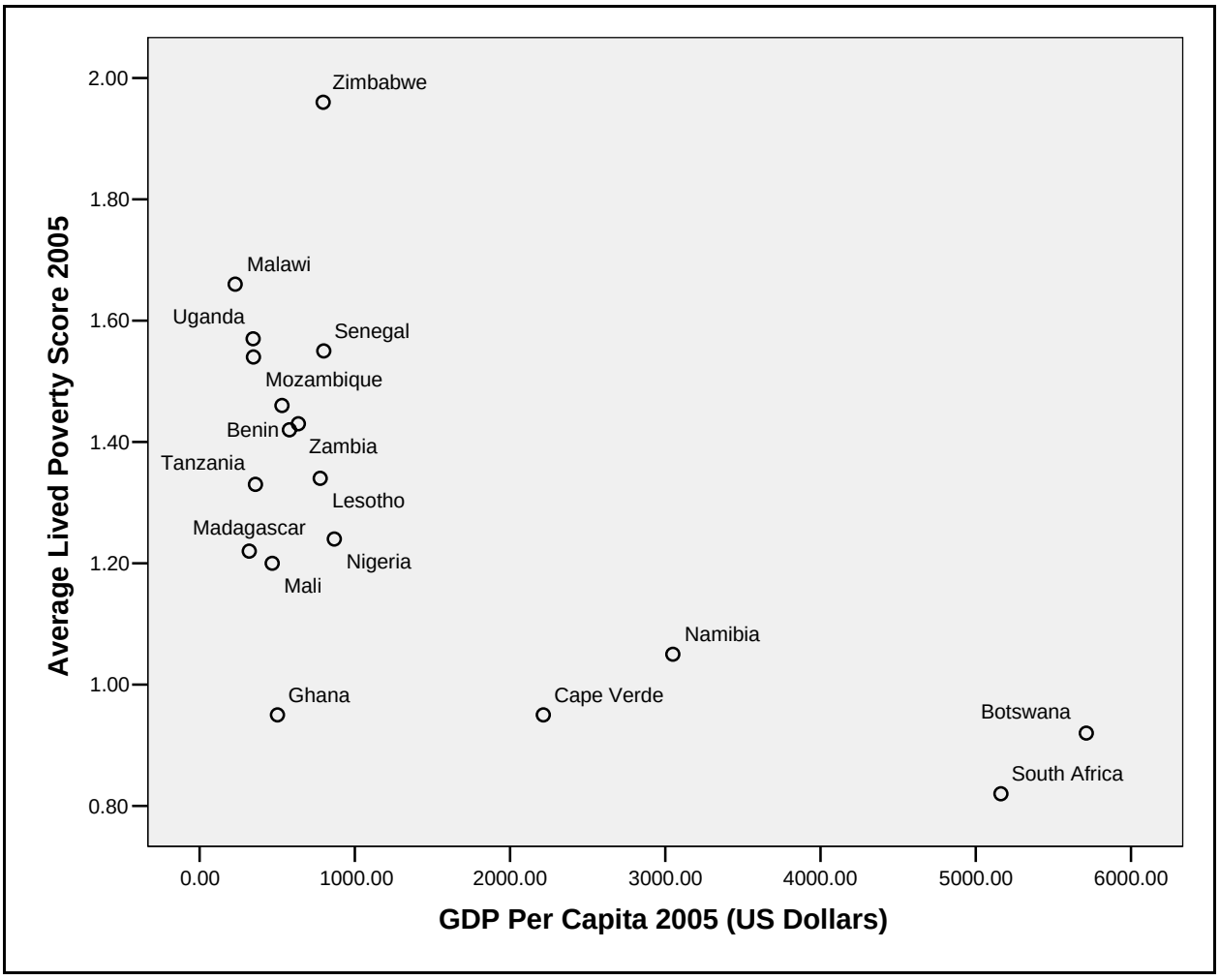
At the macro level, previous studies have found very strong relationships across seven Southern African countries between national lived poverty and GDP Per Capita, but less so with other indicators such as the World Bank's estimate of the proportions of people living on less than $1 a day, the United Nation Development Programme's Human Development Index, infant mortality or under-5 mortality (Mattes, Bratton & Davids, 2002). There are also strong relationships within South Africa between provincial levels of lived poverty and per capita monthly household income as well as a Household Circumstances Index (which combines three measures of household employment and composition) and a Household Infrastructure Index (which combines 8 measures of access to services) developed by Statistics South Africa (Mattes, Bratton & Davids, 2002).

To examine this question with Round 3 data, I collected data on the Human Development Index (HDI), Gross National Product Per Capita (GDP), and World

Bank estimates of the proportions of people living on less than US$1 a day for 2005. The results show that the association between national levels of lived poverty and HDI runs in the right direction (as national levels of lived poverty increase, human development decreases) but the macro-level correlation is very weak for 18 cases (Pearson's r =-.389). And the empirical link between lived poverty and the World Bank's estimate of the proportion of people living on less than US1$ a day (and one of the two key indicators of Millennium Development Goal 1), is virtually non-existent (r=.191 for 15 countries: Lesotho, Cape Verde and Uganda have no recent data).

At the same time, we find a much stronger correlation between the LPI and GDP Per Capita (r=-.652**) (the association is slightly stronger using GDP Purchasing Power Parity (-.693***). Yet the association is not so strong as to conclude that they are measuring the same thing. While countries with greater levels of national wealth per capita have lower levels of lived poverty, the relationship is not linear. As we see in Figure 4, lived poverty drops precipitously once a country moves over the $1000 per capita level. Out of 14 countries with GDP Per Capita less than $1000, only Ghana has a level of lived poverty comparable to the four wealthiest countries in the Afrobarometer (Cape Verde, Namibia, South Africa and Botswana).

Figure 4: Gross Domestic Product Per Capita and Lived Poverty, 2005

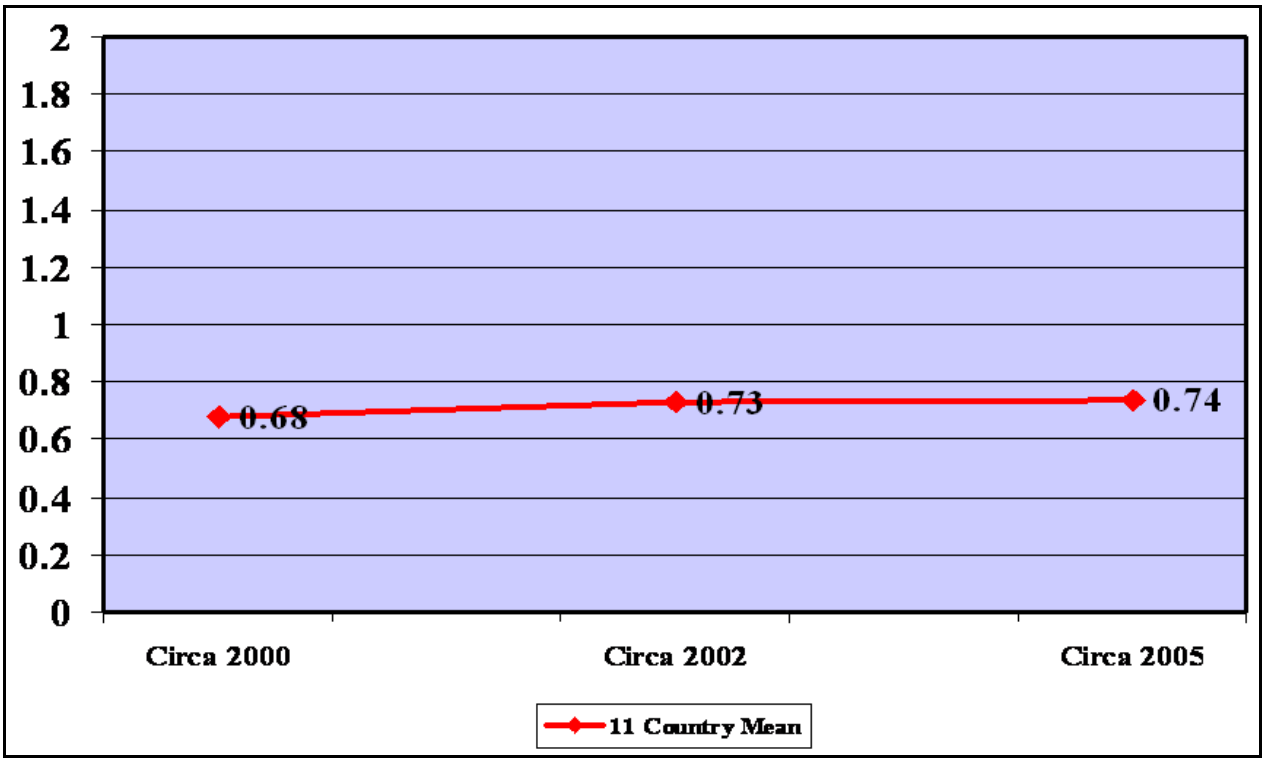


A final way to examine validity and reliability is to examine how the LPI functions over time, and whether temporal changes in lived poverty are associated with changes in other related indicators, such as national wealth? In the only existing research that has addressed this question, Johnson (2007) has found that the level democracy of ten countries in 1999-2000 was a strong predictor of subsequent changes in poverty, with higher levels of democracy predictive of poverty reduction.

In order to generate comparable results across the three Afrobarometer rounds of surveys, I restrict this analysis to only those 11 countries where at least three of the Lived Poverty items (food, medical treatment, cash income) were asked in each round (the Uganda questionnaire did not carry this scale in Round 1). Across these 11 countries, lived poverty increased significantly between Round 1 and Round 2

(0.68 to 0.73 on a three point scale running from 0 to 2), but leveled off between Round 2 and Round 3 (.73 to .74).[4]

Figure 5: Changes in Lived Poverty (2000-2005)
(3 Point Scale, 3 Dimensions: Water, Medical Treatment, Cash Income)



However, this masks important differences between countries. We witnessed sharp reductions in lived poverty between Round 1 (circa 2000) and Round 3 (circa 2005) in Lesotho (.97 to .76, though the real drop occurred only after 2003) and Namibia (.81 to .63), less so in Zambia (.99 to .90) and very slightly in South Africa (.58 to .50) and Ghana (.53 to .51) (Figure 6). However, we observe sharp increases in lived poverty in Zimbabwe (.90 to 1.21), Nigeria (.59 to .74), Malawi (.81 to .92) and Tanzania (.71 to .81), and very slightly in Botswana (.44 to .50) and Mali (.61 to .63) (Figure 7).

[4] The difference between the Round 1 and Round 2 11 country mean index score is far larger than the twice the standard error of either mean. However, the 95 percent confidence intervals of the Round 2 and Round 3 mean scores overlap.

Figure 6: Decreasing Lived Poverty (2000-2005)
(3 Point Scale, 3 Dimensions: Water, Medical Treatment, Cash Income)

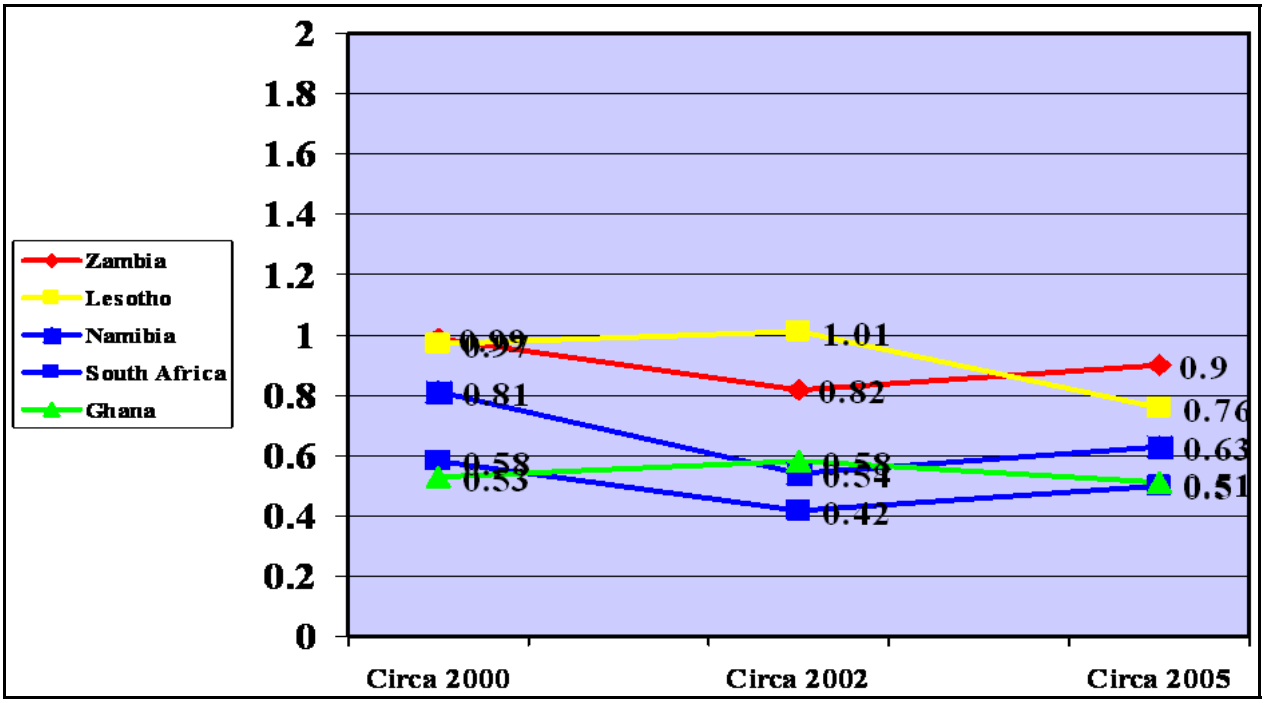
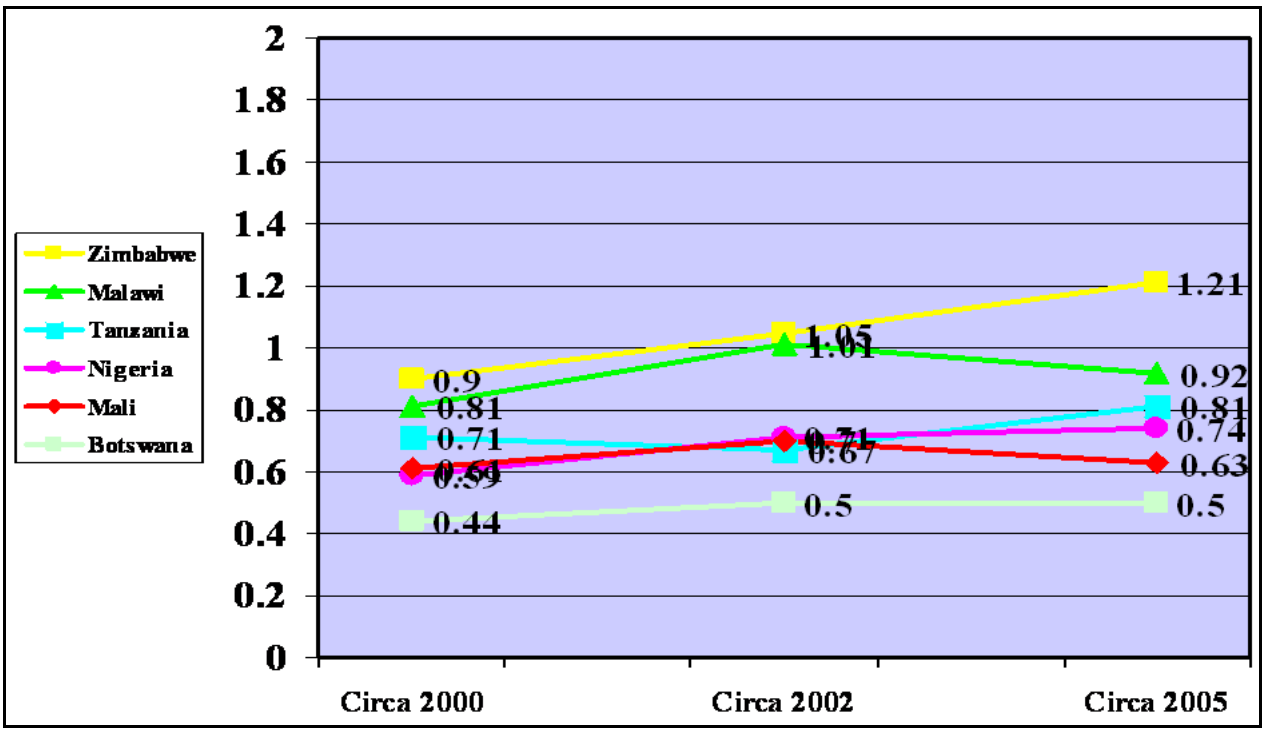
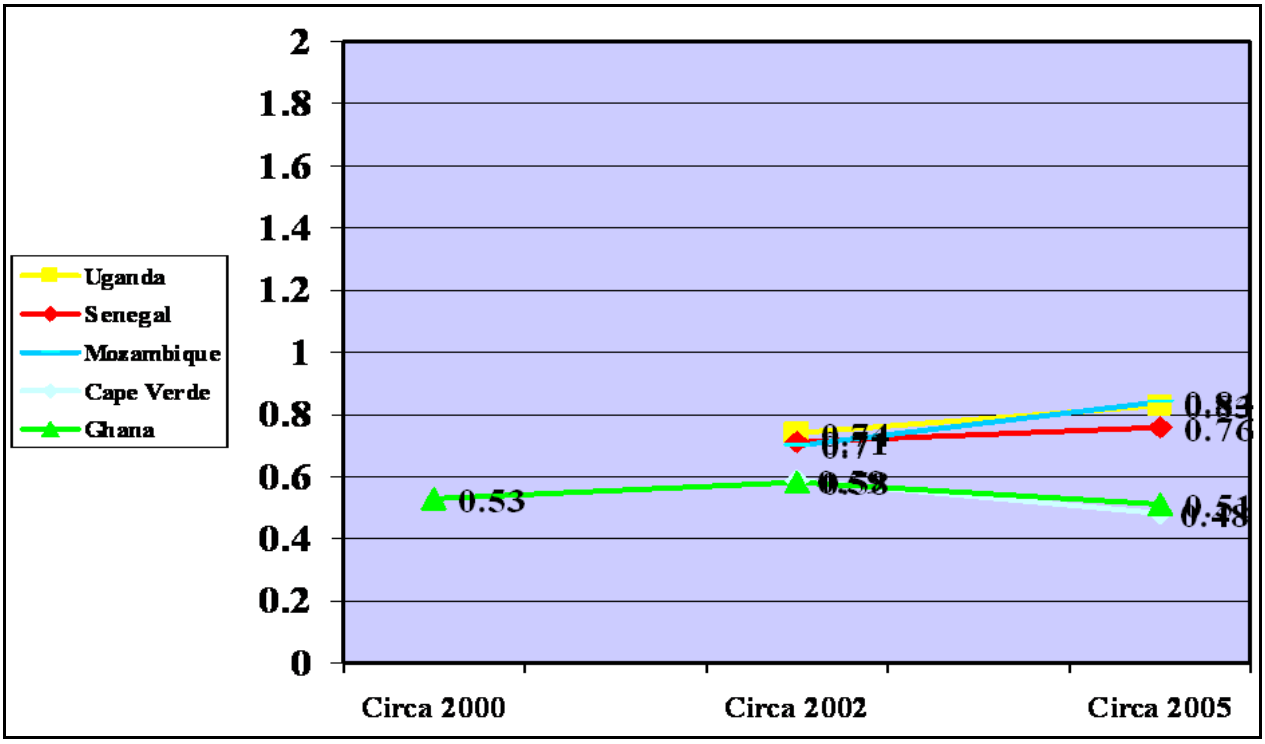


Figure 7: Increasing Lived Poverty (2000-2005)
(3 Point Scale, 3 Dimensions: Water, Medical Treatment, Cash Income)



The trends we have observed in lived poverty across 11 countries differ from recent conclusions drawn by the World Bank about sub-Saharan Africa, where they claim that strong growth has cut the estimated proportions who live in extreme poverty (living on less than 1$US a day) by 4.7 percentage points (from 45.8 to 41.1 percent) between 1999 and 2004 (World Bank, 2007). These differences could, of course, simply be a function of differing country samples. But there are also important variances within specific countries. While the specific country data does not appear to be publicly available, the World Bank (2006) claims that Cape Verde, Ghana, Mozambique, Senegal and Uganda have all "lifted significant percentages of their citizens above the poverty line" (2006: 1). Yet as seen above, the LPI shows significant decreases in lived poverty in Cape Verde (-.11) and Ghana (-.02), but registers increases in Mozambique (+0.14), Uganda (+0.09) and Senegal (+.05) (Figure 8).

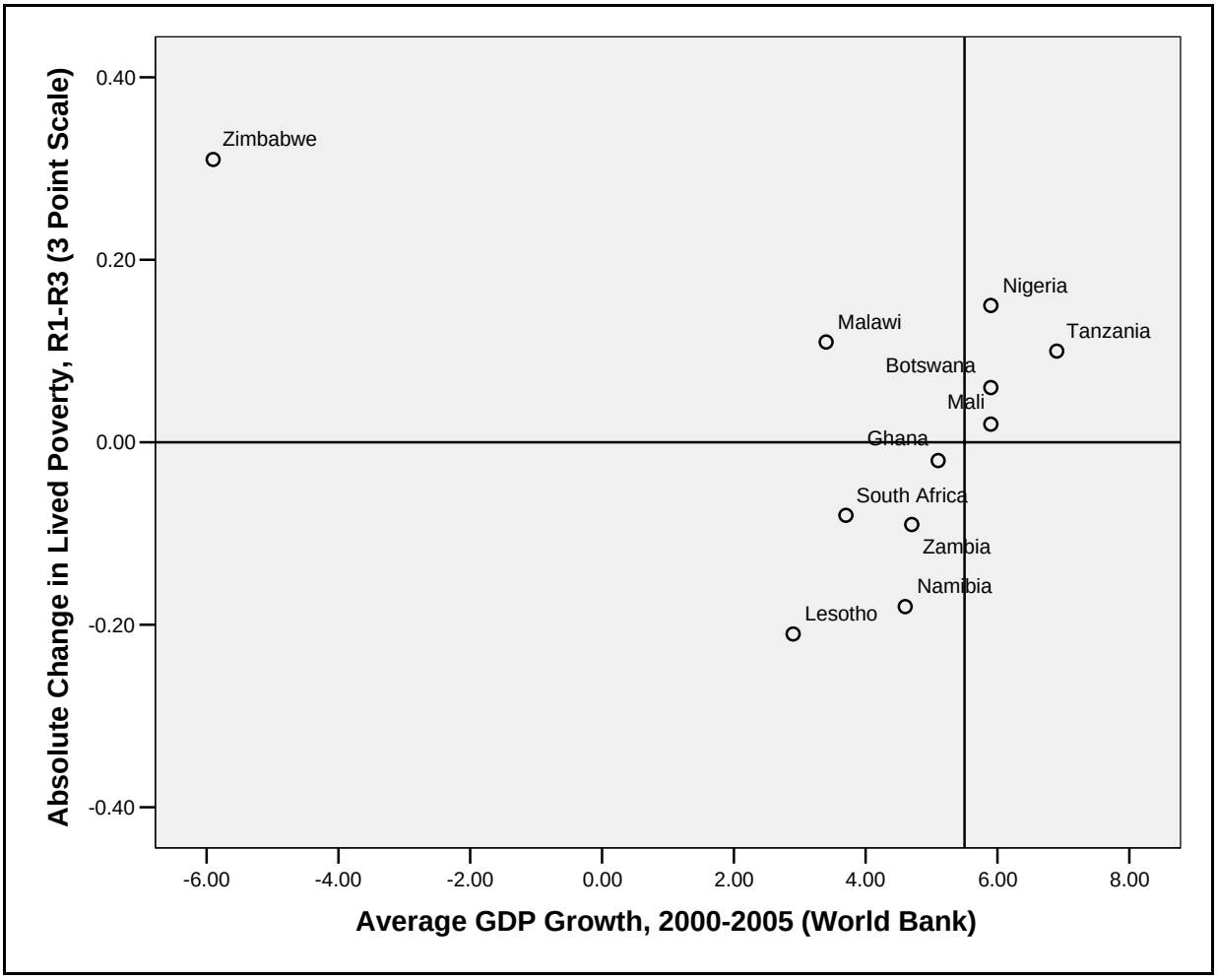
Figure 8: Changes in Lived Poverty in 5 Countries with Reductions in Percentage of People Living on <$1 a Day
(3 Point Scale, 3 Dimensions: Water, Medical Treatment, Cash Income)



In fact, while we have demonstrated a fairly substantial link between national wealth and lived poverty, there is virtually no association between changes in national wealth (or GDP growth) and changes in poverty. Across all 18 Afrobarometer countries, there does appear initially to be at least a weak case to be made that higher levels of growth (as measured by the average growth rate between 2000 and 2005) led to lower levels of lived poverty in 2005 (r=-.445), and that this growth also produced poverty reduction (as measured by changes in the LPI score between Round 1 and Round 3 for 11 countries that had measures in all three rounds (r=.439). However, a visual inspection of the scatterplot suggests that this relationship was driven completely by the combination of very high levels of negative growth and very high levels of poverty increases in Zimbabwe. Once Zimbabwe is removed from the calculation, the association between average growth and poverty in 2005 disappears (r=.058) and the relationship between growth and poverty reduction actually changes direction (r=-.593). Among the 10 Afrobarometer countries that have LPI index scores for both Rounds 1 and 3, excluding Zimbabwe, GDP growth is actually accompanied by *increases* in lived poverty.[5] In fact, the four countries that enjoyed an average growth rate of over 5.5 percent during this period (Nigeria, Tanzania, Mali and Botswana) all experienced significant increases in lived poverty. Precisely why growth has not reduced poverty in these countries is a subject too broad to be addressed in this article.

[5] This finding also holds when we measure poverty reduction only between Round 2 and Round 3 for 14 countries (r=-.505).

Figure 9: GDP Growth (2000-2005) and Changes in Lived Poverty (Round 1 to Round 3)



To sum up what we have found thus far, we have strong internal, micro-level support for the validity and reliability of the LPI. But the LPI exhibits only moderate external validity when compared with absolute measures of national wealth, and weak relationships with measures of human development or income poverty. Moreover, its overtime relationship with GDP growth stands in stark contrast to the typical economic consensus. Does this mean that the Afrobarometer LPI is not measuring poverty? Or does it mean that we are tapping crucial, experiential aspects of the "business end" of poverty often missed by other objective metric measures?

In order to reconcile this apparent paradox, I take another look at the external validity of the LPI from an altogether different perspective on development and

poverty which proceeds from the position developed by Nobel Laureate Amartya Sen (1999: 152-154) who emphasizes the crucial importance of freedom and democracy for development, especially through the freedom of choice. "[F]reedoms are not only the primary ends of development, they are also among its primary means" (1999: 10)

Given this logic, I ask whether lived poverty might be more a function of political freedom and democracy, rather than, or in addition to national material wealth. The first piece of evidence that this might be true can be seen in the fact that lived poverty has a significantly higher correlation with indicators of political freedom (as measured by the combined reversed Freedom House measures of political rights and political liberties) than with national wealth. For all 18 countries, a country's level of lived poverty in 2005 is very strongly, and negatively correlated with its level of political freedom in the same year (r=-.832***). Moreover, the link between freedom and lived poverty is independent of any simultaneous influence of wealth on both factors. ….

Table 4: The Impact[1] of Wealth Vs Freedom on National Lived Poverty[2]

	Pearson's r	**Model 1**	**Model 2**	**Model 3**
(Constant)		1.466***	.769***	.954***
GDP Per Capita, 2005	-.652**	-.652**		-.353*
Freedom House Combined Score, 2005	-.832***		-.832***	-.676***
Adj. R^2		.389	.673	.793
N		18	18	18

1. Standardized Regression Coefficients

2. The dependent variable is the Round 3 national mean Lived Poverty Index score (composed of reported shortages of health care, cash income, food, home fuel and water)

A second piece of evidence can be found in the fact that while lived poverty has weak if not perverse linkages with GDP growth, it has moderately strong and predictable linkages with democratization. That is, current levels of national lived poverty across the 18 countries are clearly associated with past changes in political

freedom: that is, the more a country expanded political liberties and political rights between 2003 and 2005, the lower its level of lived poverty in 2005 (r=-625**). And amongst the 11 countries that have lived poverty scores for both Rounds 1 and 3, I find that the more a country democratized between 1999 and 2005, the more it reduced its levels of poverty over the same time period (r=-.710*) (Figure 10). Moreover, democratization is a better explanation of poverty reduction than GDP growth (Table 5).

Figure 10:

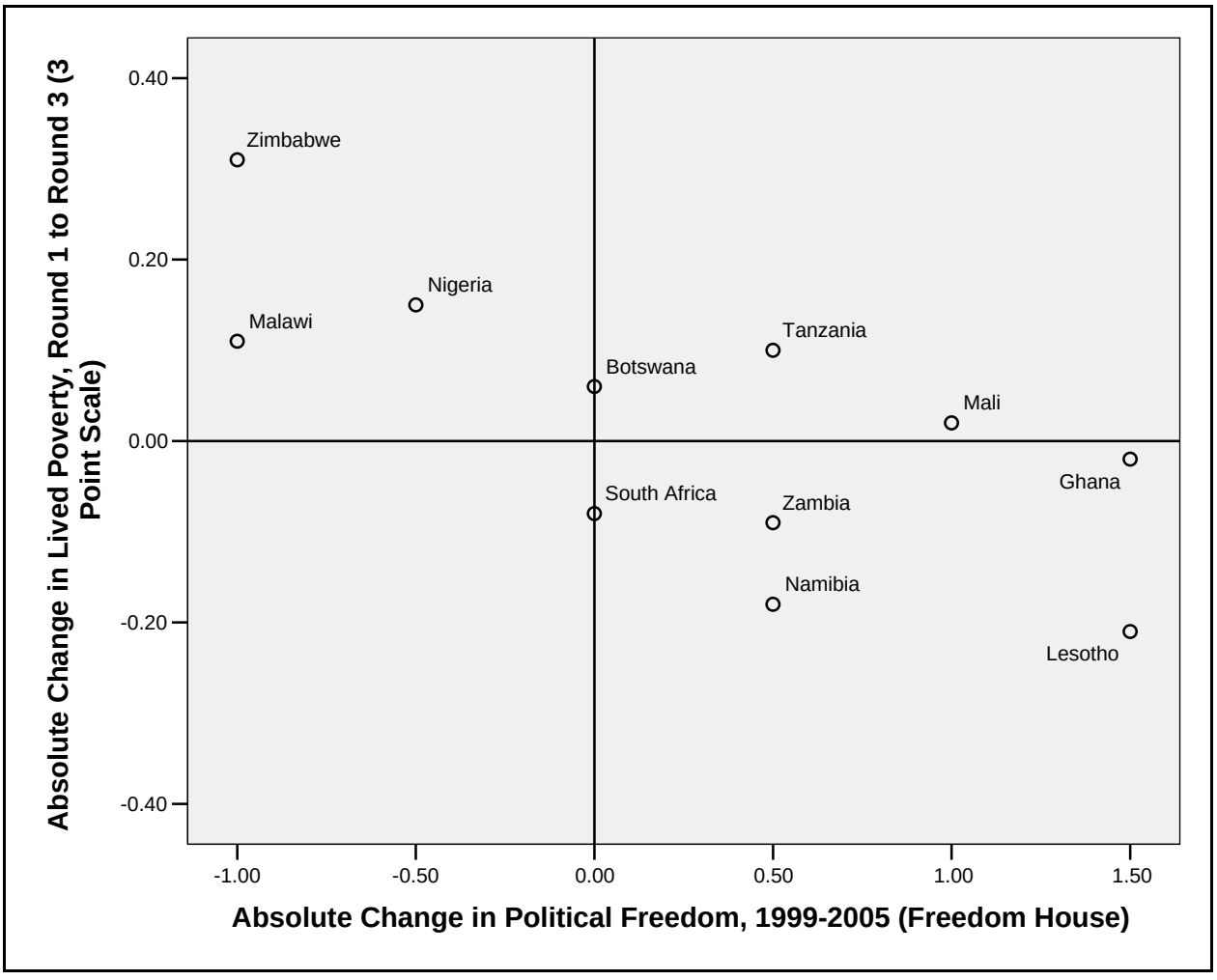


Table 5: The Impact[1] of Growth vs. Democratization on Changes in National Lived Poverty[2]

	Pearson's r	Model 1	Model 2	Model 3
(Constant)		.091	.049	.071
GDP Growth, 2000-2005	-.439	-.439		-.148
Democratization, 1999-2005	-.710**		-.710*	-.644*
Adj. R^2		.103	.450	.402
N=	11	11	11	11

1. Standardized Regression Coefficients

2. The dependent variable is the difference between the Round 1 and Round 3 national mean Lived Poverty Index score (composed of reported shortages of health care, food, and water)

A fourth and final piece of evidence of the political bases of lived poverty can be found at the micro-level. Using Round 3 data, I regressed a range of individual level variables on respondents' LPI scores. The variables measure the level of wealth of the country in which they reside (GDP Per Capita) as well as the level of political freedom (the Freedom House combined political rights and political liberties score). But I also compare the impact of these national effects to that of a series of contextual, local level measures observed by Afrobarometer fieldworkers and field supervisors in the primary sampling unit in which the interview was conducted. When factor analyzed these breakdown into three separate measures of the extent of local development infrastructure (whether or not there is an electricity, piped water and sewage grid), state infrastructure (whether or not there is a post office, police station and health clinics) and community infrastructure (whether or not there are schools, market stalls, and buildings or facilities for community meetings, religious worship and recreation). Finally, I test the relative impact of a series of individual level characteristics captured by the Afrobarometer, namely the respondent's level of formal education, age, gender, employment status, occupational class, and whether or not they live in a rural or urban area.

As theoretically guided blocks of variables (Models 1 thru 4 in Table 6), the density of development, community and state infrastructure and the collection of individual level characteristics account for the greatest proportion of variance in respondents' LPI scores (9 percent and 11 percent respectively). Political freedom accounts for 5 percent and national wealth accounts for just 1 percent. Altogether, these variables can account for 18 percent of the variance in respondents' levels of lived poverty. And once the simultaneous impact of all other variables is taken into account (in Model 5 in Table 6), the national context of political freedom has the single strongest impact on a respondent's level of lived poverty (Beta, the standardized regression coefficient = -.245***), outpacing the respondent's level of formal education (-.219***) and the level of development infrastructure (sewage, water and electricity grids) in the immediate locality (-.153***).

Table 6: Personal Lived Poverty: Explanatory Factors Compared[1] [2]

	Pearson's r	Model 1	Model 2	Model 3	Model 4	Model 5
Constant		1.344***	1.548***	1.556***	1.905***	2.430
National Wealth	-.080***	-.080***				.079***
Development Infrastructure	-.130***		-.297***			-.153***
State Infrastructure	-.299***		-.030***			-.005
Community Infrastructure	-.069***		.034***			.019*
Formal Education	-.268***			-.194***		-.219***
Rural	.244***			.166***		.055***
Female	.010			-.027***		-.022***
Age	.066***			-.005		.021***
Employment	-.149***			-.092***		-.076***
Under Class	-.031***			-.041***		-.015*
Working Class	-.070***			-.032***		.002
Middle Class	-.110***			-.026***		-.013*
Political Freedom	-.206***				-.206***	-.245***
Adj R2		.006	.091	.111	.043	.175
N=		25,359	25,344	25,051	25,359	25,036

1. Standardized Regression Coefficients

2. The dependent variable is the Round 3 Lived Poverty Index score (composed of reported shortages of health care, cash income, food, home fuel and water)

Conclusion

The cost of large scale demographic or socio-economic household surveys of income, expenditure, infrastructure and life circumstances means that they are undertaken relatively infrequently in developing countries. In contrast, because the Afrobarometer's Lived Poverty Index takes up relatively little questionnaire space, it can be used more frequently on a range of different types of surveys with relatively smaller samples. This would enable policy makers to track national and sub-national trends in the overall extent of lived poverty or of its subcomponents, such as hunger, with confidence. The LPI has strong cross-sectional individual level construct validity and reliability within any national sample, as well as cross-national validity and reliability across country samples. Moreover, it displays strong overtime internal integrity across rounds of surveys. Yet it also displays inconsistent levels of external validity as a measure of aggregate level poverty when compared to other objective, materialist measures of poverty such as national wealth, income poverty, or human development. However, its external validity is quite strong if poverty is viewed as much a function of political freedom as material wealth. Lived poverty is very strongly related to country level measures of political freedom, and changes in poverty are related to changes in freedom. This finding simultaneously supports Sen's (1999) arguments about the crucial importance of freedom for development as freedom. Yet using different measures of both development and democracy, it also corroborates Halperin et al's (2005) findings about a "democracy advantage" for well being and prosperity. It also increases our confidence that we are indeed measuring the experiential core of poverty, and capturing it in a way that other widely used international development indicators do not.

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