On Government Revenues, Accountability, and NGOs: Experimental Evidence from Ghana and Uganda on Taxes, Oil, and Aid

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Abstract

Do citizens more readily demand accountability from governments for taxes than for non-tax revenue from oil or aid? Identical experiments on large, representative samples of Ghanaians and Ugandans probe the effects of different revenue types on citizens' actions to monitor government spending. A similar experiment on MPs from the two countries examined their beliefs about these revenue sources. Roughly half of all citizens willingly take action to scrutinize all three sources. Neither Ghanaians nor Ugandans are more likely to take action for tax revenues than oil or aid when the money goes to the government. MPs likewise saw no difference. Citizens do differentiate between revenue delivered to the government compared to money given to NGOs. Findings are robust to numerous alternatives and subgroups. Little evidence exists that taxes strengthen citizens' demands for accountability or that MPs perceive differences across revenue sources. However, aid channeled through NGOs motivates more accountability.

Key words: foreign aid, oil revenues, resource curse, accountability, development, NGO

Social scientists have long believed that taxes have a special power to induce citizens to take action. Seminal accounts of political economy focus on taxpayers' capacity to demand public goods in exchange for taxes (Levi 1988, North and Weingast 1989, Schumpeter 1918). Taxes are thought to heighten citizens' attention to government accountability and thus make political elites more likely to provide public goods or face sanctions (Bates and Lien 1985, Huntington 1991, Paler 2013, Robinson, Torvik and Verdier 2006, Ross 2001, 2004, 2012).

Funds from oil and aid, on the other hand, are believed to be "windfall revenues" that relieve tax burdens and pacify citizens (Morrison 2009, 2015). Because citizens do not pay direct costs, they are less motivated to engage in oversight or demand policies in compensation. Windfalls thus enable elites to divert more funds to corruption and clientelism relatively free from citizen scrutiny; or, the money can buy citizen quiescence and repress the would-be monitors (Beblawi and Luciani 1987, Chaudhry 1997, Mahdavi 1970, Waterbury 1998). Oil and aid thus are claimed to enable corruption, undermine governance, foster repression, prolong autocratic rule, and increase conflict (Bräutigam and Knack 2004, Caselli and Cunningham 2009, Djankov, Montalvo and Reynal-Querol 2008, Morrison 2009, 2015, Smith 2008).

The original version of the taxation-causes-accountability argument thus holds that citizens' willingness to monitor spending should differ by government revenue source. This expectation motivated the design of our experiments and served as our orienting hypothesis. Later, more nuanced work, has advanced multiple alternative mechanisms through which taxes might cause citizen demands for accountability, including the endowment effect and loss aversion (Martin 2014, Paler 2013), feelings of ownership, or taxation's facilitation of collective action (Prichard 2015). Where we can, we evaluate both the original and later arguments empirically.

Despite its compelling logic, the taxation-accountability hypothesis may face challenges in explaining citizens' and elites' beliefs and behavior in developing countries. First, in the absence of strong transparency and accountability mechanisms, all money channeled through the government may be subject to similar threats of capture, malfeasance, or mismanagement and may thus, despite its origins, not seem functionally differentiable to citizens or elites once it makes its way to government coffers. Second, citizens may feel a strong sense of ownership over all forms of government revenue, including windfalls, which they believe should be used to promote public welfare. Third, most tax revenue in developing countries comes from value-added taxes, which obfuscate the extent of government extraction and thus may dampen demands for accountability. All of these factors may diminish the differences between taxes and windfalls in citizens' minds.

The experiment described below enables a focused test of how revenue from different sources and the funds' channel of delivery cause—or fail to cause—differences in citizen demands or elite expectations for accountability. Our experiment addresses important questions suggested by the taxation-accountability argument. First, are citizens more motivated to demand accountability for tax revenues than for oil or aid money? Second, do political leaders perceive differences across the distinct sources of revenue in terms of beneficiaries, institutional control, or citizen demands for accountability? And third, are all governments revenues similar in the eyes of citizens? We also address an important question about the channel of delivery by examining whether funds that are collected and distributed through the central government are viewed differently—by both citizens and elites—than those that are given directly to civil-society and non-governmental organizations. To explore these questions, we compare taxes, aid, and oil and additionally examine the effects of direct government receipt of funds compared to aid money channeled to non-governmental organizations that explicitly bypasses the government. Our experiment thus enables investigation of whether citizens' beliefs and actions about accountability depend more on differences between taxes and windfalls or on channel of delivery.

Current research rests on mixed findings, many of which are observational and therefore suffer from well-known shortfalls in causal identification. We thus need a stronger evidence base for the claim that alternate types of revenue cause differential taxpayer demands for government accountability. Unlike other studies that focus on aggregate relationships between taxes, oil, aid and regime type, we probe one set of microfoundations to investigate a direct relationship between revenue source and political attitudes and actions. Our outcomes of interest center on individual citizen and elite beliefs and behavior rather than overall democracy scores, making our study more like the experimental investigations of Martin (2014) and Paler (2013). Unlike most previous work, however, in parallel experiments we also present experimental evidence with political elites as subjects.

To test the effects of different funding sources and delivery channels on citizens' actions toward monitoring the revenue and their beliefs about the money's effects, we conducted substantively identical large-N experiments with attitudinal and behavioral outcomes on nationally representative samples of Ghanaian and Ugandan citizens. In addition, we conducted similar experiments on Members of Parliament (MPs) in the two countries. We examine individual citizens' behavior and beliefs as well as those of political elites when they are primed about government money from taxes compared to other citizens and MPs considering oil or aid. We then compare these responses to those treated with a similar statement about aid revenues not routed through the government budget but rather delivered to non-governmental organizations (NGOs). Thus, we explore citizen and elite beliefs and behavior toward the source and delivery channel of revenue in poor developing countries where people desperately need and desire the public goods the money promises.

Selected to be representative of developing countries, Ghana and Uganda both fall within a standard deviation of the mean across a wide array of indicators among low- and lower-middle-income countries. Critically, both countries rely on all three sources of revenues, although to different extents. Ghana falls toward the high end of oil rents as a share of GDP (81st percentile), and Uganda is high in terms of aid as a percentage of national income (77th percentile) (World Bank 2016). Because both depend on all three sources of revenue, they are unlike many oil-exporting countries that rely almost solely on oil revenues and have limited experience with aid or taxes. They thus serve as useful cases in which to evaluate the power of taxes to motivate citizen demands for accountability compared to windfalls in developing countries.

In four randomized treatments, respondents heard a short statement about actual, officially anticipated government and NGO spending. The statement included truthful information on the amount (held constant) and source (randomly assigned) of revenue that would be available. Our key question: When citizens are told that money from taxes they will pay will be used by the government, are they more willing to monitor and sanction the government than are citizens when prompted about public money from oil or aid? Our treatment is a realistic prime that induces citizens to think about the (usually indirect) taxes they pay, to understand this money goes to the government, and to register that it is intended for public goods provision. We also explore whether citizens are more or less likely to want to monitor and take action if the funds go to an NGO rather than to the government. Citizens were then invited to sign an anti-corruption petition (both anonymously and in their own name), send supportive SMS text messages, and donate money to their choice of good-government organizations. Leveraging the between-subjects design that avoided priming subjects to think about alternative revenue sources and agents, we also asked them how transparent and accountable they believed management of the revenue would be, how susceptible it might be to misappropriation, and how likely it was to be used for the provision of public goods.

Our findings suggest that Ghanaians and Ugandans are, on average, no more likely to take political action to monitor or encourage transparency of funds for future tax revenue than for oil or aid funds when told these funds are given directly to the government. The point estimates are small in substantive terms and precisely estimated, suggesting meaningful null findings. The few marginally significant results are consistent with statistical artifacts produced by multiple testing.

These results are robust to numerous alternative specifications, including probes of many subgroup effects such as subjects who pay income taxes, those with higher or lower trust in government, those with greater or lesser demand for public goods, and supporters of the government party versus the opposition. We thus do not find much support for the version of the argument that citizens will demand more accountability when they consider taxes they pay than when the government collects windfalls.

In contrast, we find significant results when we compare revenues going directly to the government versus those channeled to NGOs. Funds directed to NGOs are seen as more beneficial, more likely to contribute to public goods, and more likely to engender citizen action than funds going to the government, especially in aid-dependent and more-corrupt Uganda. Citizens seem to view all sources of funds going to the government as equally suspect and likely to be misappropriated. But when those funds are channeled through NGOs instead, citizens see greater possible benefits and thus take greater action in support of the NGOs.

To accompany our evidence from citizens, we also examine the second set of agents involved in the accountability process: political leaders. For our elite sample of MPs, we primed them with the same four treatments to learn if they reacted differently when primed about taxes rather than aid and oil money delivered to governments or to aid funds channeled through NGOs. We wanted to know if MPs thought that different revenue sources or channels would be more likely to benefit the public and if they felt they themselves had more control over some sources compared to others. The "taxes lead to representation" argument suggests that MPs should think taxes are more likely to benefit the public since they evoke more scrutiny and that the government should have more control over taxes than over aid, oil, or aid delivered to NGOs. Because the theory expects citizens to monitor and sanction more for taxes, it follows that MPs should also view taxes differently. However, the MPs see little difference across the revenue sources when they go directly to the government, suggesting that even well-informed, educated political leaders do not believe there is much difference in these revenue streams. Unlike the public, they do not acknowledge any greater benefits from the NGO-directed money; we do find, however, that in Ghana the MPs believe they have less control over the NGO funds.

Importantly, our findings do not result from general citizen indifference to bad governance. In both countries more than half of subjects signed transparency petitions and roughly half donated money to good-government NGOs. Citizens were simply not differentially motivated toward political action across the revenue conditions. We suggest that these results may stem from the funds' being channeled through governments that operate in institutional environments where many citizens feel ownership of both oil and aid and where indirect value-added taxes obfuscate actual levies. The fact that MPs also do not distinguish much among the three revenue sources when they are delivered directly to the government also supports this larger result. However, both citizens and MPs perceive greater differences between revenue delivered to the government and aid channeled through NGOs, and Ugandan citizens are significantly more willing to act to support NGO efforts. These findings should encourage rethinking the causal mechanisms behind the original version of the taxation-causes-accountability argument in developing-country contexts as well as its corollary that non-tax revenue causes citizen quiescence. In what follows we situate the study in the relevant literature, develop hypotheses, describe the research design, and present the data and findings.

Revenue and Accountability

The intellectual history of the idea that taxation causes accountability runs through Schumpeter (1918), Huntington (1991), North and Weingast (1989), Levi (1988), Tilly (1990), Bates and Lien (1985), Collier and Hoeffler (2005), and numerous others, forming an important foundational concept in theories of democratization. Its essence was first and perhaps most famously intoned by Boston's Old West Church Reverend Jonathan Mayhew in 1750 as "no taxation without representation," becoming a rallying cry of the American Revolution. The logic is straightforward. Mobile capital (including human capital) is more able than fixed capital to flee despots, so leaders are forced to bargain with private citizens to exchange public services for tax payments. Given their credibility problems in enticing creditors to finance their militaries or in persuading citizens to pay taxes, successful leaders offered a say in government in return, thus tying their hands against future coercion.

Therefore, in the original version of the argument, taxation directly causes accountability. As Bates and Lien (1985, p. 53) write, "[r]evenue-seeking governments may well find it to their advantage to strike bargains with citizens whose assets they seek to tax. To induce a greater willingness to pay taxes, they may defer to the citizens' policy preferences. Such bargains may become more beneficial from the citizens' point of view the more mobile the assets the citizens hold." The lack of accountability in resource- and aid-rich states follows logically from these arguments: if citizens are not taxed, accountability pressures will decrease. Huntington (1991, p. 65) articulates this point clearly: "Oil revenues accrue to the state: they therefore increase the power of the state bureaucracy and, because they reduce or eliminate the need for taxation, they also reduce the need for the government to solicit the acquiescence of its subjects to taxation." Natural resource rents weaken citizens' motivatation to monitor and sanction government mismanagement (Morrison 2015, Robinson, Torvik and Verdier 2006, Ross 2001, 2004, 2012). This phenomenon is believed to enable the "resource curse," at least in part, by demotivating demands for accountability and thus undermining good governance and, as a result, economic development.

Foreign aid may be similar in its effects. Critics charge that both natural resource rents and foreign aid are "windfall revenues" or "sovereign rents" that promote corruption, undermine governance, increase violence, and stabilize autocratic regimes (Bräutigam and Knack 2004, Collier and Hoeffler 2005, Djankov, Montalvo and Reynal-Querol 2008, Humphreys 2005, Morrison 2009, Smith 2008). Critically, natural resource and aid windfalls relieve leaders of the need to finance government through taxation (Beblawi and Luciani 1987, Mahdavi 1970, Morrison 2009, 2015).

Alternatively, a more nuanced argument developed later in response to mixed findings—as opposed to the original view that taxation drives accountability directly and windfalls expressly cause quiescence—advances a set of contingent claims that taxation may lead to representation only in particular circumstances that may not hold generally in developing countries. For example, Ross (2004) argues that taxes will only motivate citizens to demand representation to the degree that governments underprovide public goods in relation to taxes. Moore (2008) notes that tax bargains will less likely result in citizen representation where distrust of the state prevails, governments have limited tax capacity, and alternative revenue sources abound. And Prichard (2015, p. 261) reinforces the complex and conditional nature of tax bargaining particularly in Sub-Saharan Africa, noting that "[t]he links between taxation, responsiveness and accountability have been frequently indirect, long-term and difficult to observe, while the emergence of positive connections has hinged on specific features of tax systems and of the broader political and economic environment."

Additional scholarship exploring the subtleties of taxation suggests that the physical act of paying taxes triggers negative affect linked to the well-known psychological phenomena of loss aversion and the endowment effect (Martin 2014, Paler 2013), in which people disproportionately fear losses and overvalue possessions, respectively (Kahneman and Tversky 1979, Kahneman, Knetsch and Thaler 1990). By simulating actual tax payments, these studies activate psychological mechanisms related to endowments of income and losses in taxes and suggest that income taxes can motivate citizen action (Martin 2014, Paler 2013). The theoretical and empirical foundations of the endowment effect and loss aversion are compelling, and they lend greater support to the nuanced version of the argument making citizen demands for monitoring taxes contingent. Other scholars have also questioned the inevitability of the resource curse and claimed that the effects of resources on governance are conditional on other factors (Dunning 2005, Jensen and Wantchekon 2004). This debate remains unresolved even in the context of many large-N observational studies (Ahmadov 2014).

Empirically, we examine first the original version of the taxes and windfalls argument. We focus on demands for accountability in principle; that is, in thinking about their government's likely use of these revenues, are citizens more willing to demand greater transparency and pay higher costs in monitoring tax money than oil or aid funds? These claims do not reference psychological biases as in the endowment effect. Rather, the original taxation-causes-accountability-demands argument and its resource-curse corollary are founded upon the presumption of rational action: because taxes prove costly to citizens and windfalls do not, taxes are more likely to motivate citizens directly to take action.

This direct argument underpins the key hypothesis the study was designed to test:

> **Hypothesis 1** ***Taxation causes accountability.*** *Tax revenues should motivate citizens to take more action to monitor public spending compared with oil and aid.*

If the seminal arguments linking taxes to citizen action hold, taxes should also produce greater transparency and accountability. The bargain described by Bates and Lien (1985) requires that citizens know they are being taxed and can follow the money from their pockets to the production of public goods. On the other hand, windfalls may lack transparency: "low levels of budget transparency in oil-dependent countries are common and may lead to poor management of resource wealth" (Devarajan, Le and Raballand 2010, p. 4).

Further, the main taxation-causes-accountability argument holds that, because citizens care more about taxes than windfalls and therefore will more readily scrutinize spending from taxation, the risk of misappropriation for oil or aid should be significantly greater than for taxes. This is conceptually related to what Ross (2001, p. 333) calls the "spending effect," which predicts that "oil wealth may lead to greater spending on patronage, which in turn dampens latent pressures for democratization."

Thus, the foundational bargain of leaders with citizens requires an exchange of tax revenue for influence over public policy in order to produce services that citizens value (Bates and Lien 1985, Levi 1988, Ross 2004). Indeed, Ross (2004) holds that citizens will only tolerate taxes if the public revenue produces actual public goods. As he writes, "[d]emocracy in this case is not necessarily a way for citizens to reduce their taxes, or to increase spending, but to get more for their money" (Ross 2004, p. 234-235). Citizens should therefore expect taxes to increase public-goods provision and should thus be more inclined to pay costs to monitor tax money. Two additional observable implications thus follow.

Hypothesis 2 ***Misappropriation.*** *Citizens should believe that elites can less readily misappropriate taxes than aid or oil revenues for personal or political gain.*

Hypothesis 3 ***Public Goods Benefits.*** *Citizens should expect greater public benefits from tax-based spending because they believe leaders will use taxes more than oil or aid to provide public goods.*

To probe more deeply into the connection between revenues and accountability, we ask whether citizens respond differently if revenues are given directly to the government versus channeled through NGOs. Are citizens' beliefs and actions dependent on the type of revenue or on who manages the money? Foreign aid, for example, is given both directly to governments and passed through non-government organizations (NGOs). Donor agencies have turned to such bypass aid out of concerns over the accountability of the recipient government. Indeed, Dietrich shows that more than 30 percent of aid is delivered to groups outside the government on average (Dietrich 2013, p. 699). Donor governments choose to deliver aid this way to avoid dealing with recipient governments they believe to be unaccountable and corrupt (Dietrich 2013). Bypass aid is expected to be less susceptible to government misappropriation and more likely to enhance development, and is often delivered through non-profit organizations embedded in the communities in which they operate. This may lead citizens to be more sanguine about their ability to observe whether funds allocated to non-profits are well spent. Because these organizations are also more local and thus more responsive to community preferences, citizens may also believe that bypass aid has greater welfare benefits than its on-budget counterparts. This leads to the following three hypotheses:

Hypothesis 4 ***NGO Action.*** *Citizens should be more likely to take action to monitor spending when revenues are channeled through NGOs compared to aid, oil, or tax revenues given directly to the government.*

Hypothesis 5 ***NGO Benefits.*** *Citizens should believe that revenues channeled through NGOs bring more benefits compared to aid, oil, or tax revenues given directly to the government.*

Hypothesis 6 ***NGO Misappropriation.*** *Citizens should feel revenues are less likely to be misappropriated when they are channeled through NGOs compared to aid, oil, or tax revenues given directly to the government.*

Political leaders are the second set of agents involved in monitoring and influencing how government revenues are used. MPs in Uganda and Ghana play a role in watching over how the central government uses its resources and in trying to direct those resources to their constituencies. Studies of African legislatures rate both Uganda and Ghana as having capable parliaments with meaningful powers and note that MPs and the public consistently say that MPs play a major role in influencing spending and directing it to their own constituencies.[1] Ghana has a Public Accounts Committee that scrutinizes government budgets and the MPs have access to funds for their constituents (Rotberg and Salahub 2013, pp. 12-13) and (Parliamentary Centre 2011, p. 29-30). Uganda passed the Budget Act in 2001, which created the Budget Office within the Parliamentary service and scrutinizes budgets (Parliamentary Centre 2011, p. 22). It also passed a series of Production Sharing agreements related to overseeing oil and gas spending by the government (Polus and Tycholiz 2017, p. 196). Governments in these countries propose budgets and MPs debate and vote on those budgets. With limited staff or committees, MPs rarely challenge major elements of the government's budget proposals, but they do monitor the government and make amendments. MPs are thus both a group monitoring the government to make it more accountable as well as a group being scrutinized by the public to become more accountable.

The taxation-causes-accountability literature assumes a set of strategic interactions between political leaders and citizens. Because citizens are expected to monitor and sanction more for misuse of taxes, leaders should be more careful with tax monies, less likely to misappropriate them, and more likely to use them for public goods. MPs should be more interested in and more able to monitor and direct taxes than aid or oil revenues because citizens are expected to be more active in pressing them for accountability for taxes. Moreover, because of this MPs, like the public, should believe that taxes will bring more benefits for the public than aid or oil. We then derive two hypotheses from this for MPs.

Hypothesis 7 ***MP Influence.*** *MPs should believe that they have more ability to monitor and influence the spending of taxes than of aid or oil revenues, especially for aid that goes through NGOs.*

Hypothesis 8 ***MP Public Goods Benefits.*** *MPs should believe that taxes bring more public-goods benefits than do oil revenues or aid, whether given to the government or to NGOs.*

[1] As one review of African parliaments notes, "over the past two decades legislatures in countries such as Ghana, Kenya, Uganda and South Africa have taken steps to develop into institutions capable of fulfilling representative, legislative and oversight functions. This has included the, often uneven, emergence of committee systems to shadow ministers and the building of professional staff. African legislatures increasingly scrutinise and amend bills, and in a limited way, involve civil society, especially where large urban sectors exist" (Heinrich Boll Stiftung 2012, p. 4).

Experimental Design

We evaluated the hypotheses through an experimental strategy and data analysis plan that were registered with the Evidence in Governance and Politics network prior to researcher access to the outcome data. For the experiment with citizens as subjects, we drew sizable samples of Ghanaians (n = 3,653) and Ugandans (n = 3,186) that are nationally representative in most respects, except that we oversampled districts that are nearest the sites of oil exploration. See Section A in the appendix for discussion of the randomization protocol. We also used large convenience samples of current and past MPs in the two countries. We selected the two countries with attention to the representativeness of Ghana and Uganda among developing countries generally and among Sub-Saharan African countries in particular. Across a basket of conventional development indicators, including life expectancy, under-five mortality, adult literacy, unemployment, proportion of the population living on less than $1.90 per day, and many others, both countries in 2014 and 2015 were at or near the means for lower-middle-income countries (World Bank 2016).

Additionally, Ghana and Uganda also provide some divergence across a set of important covariates that helps to enable generalizability across a range of typical developing countries. Critically, Ghana has been receiving revenues from oil since 2010. While Uganda's oil is not yet flowing in comparable amounts, newspaper reports suggest hundreds of millions of dollars in oil revenue were present in the Ugandan budget by 2014/15 (Musisi 2017). In comparative terms, Ghana's oil rents of 5.7 percent of GDP in 2014 place the country near the higher end of the distribution at the 81st percentile among the 137 developing countries reporting data (just seven, six, and five ranks below Yemen, Russia, and Nigeria, respectively, and ahead of other well-known oil producers such as Norway, Bahrain, and Mexico) (World Bank 2016). Uganda does not report this statistic, but its relatively small-scale oil extraction to date likely place it near the low end. Likewise, Uganda's relatively high aid dependence of 6.0 percent of GNI ranks it in the 77th percentile among all developing countries; Ghana's aid per GNI of 3.1 percent is roughly half the value of Uganda's.

The selection of the two countries was also done to consider differences in political system and economic outlook while holding constant the broad geographic region. Ghana is a stable democracy, scoring near the top of political rights and civil liberties scales; Uganda is labeled as an anocracy with worsening rights and liberties, especially recently (Freedom House 2016, Marshall, Gurr and Jaggers 2016). As a middle-income country, Ghana is more than twice as wealthy as low-income Uganda, with Ghana's 2014 GDP per capita adjusted for purchasing power parity at $3,784 compared to Uganda's $1,634 (World Bank 2016).

In interviews with the Ghanaian and Ugandan citizens and MPs, enumerators presented a randomly assigned statement about the source of significant public funds and invited subjects to participate in actions to monitor the money. In addition to varying the source, we also varied whether the money was given directly to the government or was passed through NGOs. Enumerators then asked subjects a series of questions about what they thought the effects of the funds would be and how they thought the money would and should be spent. The amounts of these revenue streams were held constant across conditions in each country. All were based on best estimates of plausible future budget sources given publicly available information; thus, no deception was used in the experiment. We focus on four pairs: oil versus taxes, aid versus taxes, aid versus oil and NGO-delivered aid versus all three directly delivered revenues. Our goal was to examine accountability demands among citizens in principle; that is, what costs they were willing to pay to monitor and demand greater transparency across future revenue from the three sources. We also probed MP beliefs about differences in institutional control and public-goods targeting across revenue sources.

The citizen survey first asked questions covering a wide array of standard demographic characteristics. After this, we randomly assigned subjects to receive a statement about revenues from one of four sources: domestic taxes, oil receipts, aid flows to the government, and aid flows through NGOs. Randomization of treatment assignment allows us to uncover systematic differences in subject actions and responses across conditions. We incentivized citizens to take the survey by giving them either 6 Ghanaian cedis or 1,000 Ugandan shillings at the start.[2] Later, we invited citizens to donate (parts of these) sums to watchdog non-governmental organizations (NGOs) as a behavioral outcome. We tested the effects of the different revenue conditions both on citizens' attitudes and on their willingness to take action imposing personal costs by signing a petition calling for an independent resource tracking agency, sending an SMS message to their MP, and donating survey remuneration to watchdog NGOs.

The treatment conditions are as follows (with differences highlighted in boldface):

> "As part of this survey, we are also providing important information to [Ghanaians/Ugandans] about finances in [Ghana/Uganda]. In next few years, government agencies of [Ghana/Uganda] will receive at least [2.1 billion cedis/5 trillion shillings]. This money will come from **[the sale of the oil that was recently discovered in [Ghana/Uganda]/taxes on wages and purchases that will be paid by all [Ghanaians/Ugandans]/aid given by**

[2] At the time of the experiment 6 cedis were worth about $2.40 and 1000 shillings were worth about 40 cents at 2014/15 exchange rates, or about $6 and $1 respectively in terms of local purchasing power.

> **foreign governments to the government budget/ aid given by foreign governments to NGOs**]. This money will [**become part of the [Ghanaian/Ugandan] government budget/go DIRECTLY to non-governmental organizations, not to the central government.**] [**Lawmakers and the President/NGOs**] are supposed to use the money to improve the lives of [Ghanaians/Ugandans]."

The prompts are identical in terms of the absolute amount of revenue noted. By holding the absolute amount constant, the design attempts to isolate the effects of revenue source and channel from revenue size. We framed the tax condition generally so that it included both income taxes and indirect taxes on goods and services. While most citizens in African developing countries do not pay income taxes, the vast majority of citizens pay indirect value-added and service taxes (Prichard 2015). Thus, the treatments prime people to consider their tax money or the oil or aid funds, and then probe whether they are willing to take action to promote government accountability.

While our experiment does not actually take tax money from citizens, it does prime them with three realistic elements about taxes. First, most Ugandans (and most citizens in developing countries) do not pay income taxes; they pay indirect taxes like VAT on goods they purchase. So they are not explicitly handing over their income to the government, and our prime reminds them about this type of tax on their purchases. Second, we prime them to remember that this tax money goes to the government. Third, the treatment underscores that this money is intended to provide them with public goods from the government. Because citizens do not pay direct taxes, these primes are quite realistic and provide compelling reminders of their indirect contributions to the government.[3]

Survey and Key Outcomes of Interest

Following the experimental condition text, citizens could voice their support to create an independent agency to track the revenue and sign a petition anonymously or in their actual name that would later be sent to their constituency MP stating the respondent's desire for the agency to be created. Subjects were also invited to send an SMS text message reinforcing their position to their MP. Finally, they were invited to donate a portion of the money paid them for taking part in the survey to watchdog groups promoting government accountability. Section A.2 in the appendix provides the wording for the donation prompt. With the exception of the donation amount, all measures are binary and take a value of one if the respondent acted affirmatively and zero otherwise.

Following the behavioral outcomes, citizens were asked a series of questions about how transpar-

[3]Whether indirect taxes produce the same political effects as direct ones is a question little discussed.

ent spending financed by the revenue source was likely to be. They were also asked to report how likely it was that elites would be able to misappropriate the money to themselves, their families, or for their political advancement (e.g., clientelism). The survey further queried them about the likelihood that the money would be used to supply public goods. Finally, questions probed whether subjects would be willing to pay taxes to finance a transparency agency to monitor the revenue or to contact local or national elected officials in the event the revenue was misused.

From these questions after the experiment, we created three indexes to assess our three citizen hypotheses. Our first index focuses on the actions citizens might take to monitor and sanction the government for its use of the revenues; `ACTION` includes questions about supporting and paying for an independent agency to monitor the government, signing a petition to create such an agency, sending an SMS about this petition, contacting their village elder or MP or local official if funds are used badly, and donating part of their incentive money for this agency. The second index involves whether and how much citizens think the revenues are likely to be misappropriated by the government; `MISAPPROPRIATION` includes questions about the probability the funds are used for clientelism, whether subjects can see how the funds are spent, and whether their MP can see how they are spent. The third index tracks whether citizens believe the funds will be used to help the public versus helping political leaders and the government; `BENEFITS` includes questions about whether people believe the funds will be spread equally over the districts (versus concentrated in ruling government ones), whether the funds will benefit ordinary people like themselves, whether they will benefit their family, and whether they will benefit their community. We include the exact wording of individual questions in Section B of the appendix.

For the MPs, we create two indexes since their survey had to be much shorter. The first index parallels the one for the public focusing on benefits from the revenues and whether they serve the public; `BENEFITS` includes questions about whether the revenues will help their family, their community, or the economy. The second focuses on how much control and influence over the revenues the MPs believe they have; `INFLUENCE` covers questions about whether the MP thinks tracking the funds is important, if the MP can direct the funds to his district, if the MP feels he has control over how the funds are spent, and if the MP can observe how the funds are spent by the government. The exact wording of individual questions can be found in Section B of the appendix. These indexes then form our main dependent variables.

We create both the citizen and MP indexes by calculating the average of the non-missing values for the set of questions in each index. Approximately 4% of respondents in the mass surveys did not answer or replied "don't know" to individual questions across the three indexes. To mitigate concerns that these missing values might bias the overall index for the mass sample, we imputed five datasets using the `Amelia` package in `R`. The MP survey did not have a large number of missing values. We also estimated the mass models without imputed values and find substantively similar results as shown in Sections E and F in the appendix.

Data and Method

The citizen sample contains 3,653 observations in Ghana and 3,186 in Uganda, which were collected using an area-probability sample designed to achieve national representativeness. Data collection in Uganda occurred from May to June 2014 and in Ghana during March and April 2015. To enhance the validity of our estimates, we implemented block randomization within each enumerator, resulting in perfect or near-perfect balance in the number of treatments of each type delivered by enumerators. Due to random selection of primary sampling units (PSUs, which were polling stations), this resulted in a form of enumerator-PSU blocking that ensured assignment to our treatment conditions was balanced both across enumerators and across PSUs. See Section A in the appendix for more discussion of the randomization protocol. Balance at the level of the PSU allows us to exploit not only the spatial correlation between many important respondent characteristics, such as education, wealth, and access to information, but also the strong spatial correlation between respondents' political experiences. In terms of covariate balance, as expected, the block randomization algorithm was successful in randomizing respondents into equally sized treatment groups within polling-station PSUs. See Section D in the appendix for results of balance tests designed to test successful randomization.

The MP sample includes 200 current and former MPs from Uganda and 300 from Ghana. It is a convenience sample but is broadly representative of the 9th Parliament of Uganda and of the 6th Parliament in Ghana, as shown respectively in appendix section K.

We report results below for all subjects using a traditional difference-in-means between the reference and comparison groups across the four conditions: (1) Tax Treatment, Aid Control; (2) Oil Treatment, Aid Control; (3) Tax Treatment, Oil Control; (4) NGO Treatment, Non-NGO (Tax/Aid/Oil) Control. To control for unexplained—but possibly influential—differences across enumerators, we also include enumerator fixed effects. All of these results are estimated using generalized least squares with classical standard errors. As mentioned above, we consider potential bias from missing values for the mass surveys by imputing five datasets. We report these results below and the estimates for the unimputed sample in Sections E and F in the appendix. We employ traditional difference-in-means and regression results in the paper, but report results using randomization inference, which is an assumption-free non-parametric estimation strategy, in the appendix. See appendix tables 77-82 and 105-108, which show similar results to the analysis here.

Analysis

In terms of descriptive statistics, a majority of subjects were willing to undertake political actions to promote budget transparency and monitor government spending, as shown in Table 1. Citizens seemed to be willing to pay costs for accountability. In Ghana and Uganda, 53.2 and 50.7 percent of participants, respectively, signed the petition in their own name. An additional 8.3 percent in Ghana and 7.9 percent in Uganda signed the anonymous petition, for a total of 61.6 percent and 58.6 percent signing either the named or anonymous petition in Ghana and Uganda, respectively. Also, 48 percent of Ghanaian participants and 57.5 percent of Ugandans donated money to the good-government NGOs, and on average they donated 2.1 (of 6) cedis and 386 (of 1,000) shillings, which both constituted sizable shares of their payment for participating in the study. Table 1 shows that across many types of actions, citizens in both countries are not apathetic; they are willing to act to obtain public goods. While social desirability bias may artificially raise the absolute levels of donation, this bias is constant across all treatment conditions and thus poses no threat to inference.

	Ghana		**Uganda**	
N	3653		3186	
	Frequ.	**Share**	**Frequ.**	**Share**
Signed Anon. Petition	295	0.083	251	0.079
Signed Named Petition	1878	0.532	1589	0.507
Willing to Send SMS	1146	0.327	1514	0.486
Donated to NGO	1712	0.48	1833	0.575
Mean Amount Donated	2.1	Cedis	385.7	Shillings
Likely or Very Likely to Contact Village Elder	1628	0.46	1871	0.594
Likely or Very Likely to Contact Local Councilor	1786	0.506	1687	0.536
Likely or Very Likely to Contact MP	1241	0.35	1259	0.402

Table 1: Frequencies and Proportions of Subjects Taking Action and Expressing Willingness to Take Action to Monitor Revenue. Results show that large proportions of respondents are willing to take various forms of costly political action to monitor spending or to strengthen transparency institutions.

While enumerators delivered the prompt with special emphasis on the source of the revenue, not all respondents passed the post-treatment manipulation check. Thus, these respondents have not been "treated" insofar as they may not have adequately understood the critical piece of the prompt: the source of the additional revenues.[4] The manipulation check came many questions after the intervention and prompted respondents to recall the source of the new government revenue. Enumerators were instructed not to read any answer choices or give any assistance to respondents as they answered this question. Only an unassisted answer matching exactly the experimental source was coded as correct. To learn if non-compliers drive the intent-to-treat estimates towards a null result, we estimated the treatment effects for the subgroup of respondents who passed the manipulation check. Passage rates were fairly high despite the relatively difficult check, averaging 70 percent across conditions and countries. However, subjects failed the manipulation check significantly more often for the tax condition, suggesting some selection effects across experimental conditions.

We report results on those who passed the manipulation check here. In the appendix we report the results for the entire sample without the manipulation check as well as results for the individual components for the index variables, see Sections E, F, G, and H in the appendix. The results from the full sample do not differ materially from those for the group that passed the manipulation check.

This restricted sample does pass balance tests for both the Tax-Oil and Tax-Aid comparisons as illustrated in appendix Section D. We note that, if the most attentive subjects were those passing the manipulation check, the subgroup analysis should bias the findings in favor of the original taxation-causes-accountability argument: those most attuned to taxes should be the subjects most willing to take action to monitor the use of tax money. The tax treatment among the manipulation check group thus focuses on a smaller, more exclusive group of subjects especially attentive to the mention of taxes. Yet these results are null with narrow confidence intervals suggesting precise estimation. The restricted sample does pass balance tests for the NGO treatment as well in Uganda. The restricted sample in Ghana, however, is more female for the NGO-non-NGO comparison.

Figure 1 presents the results from our comparison among the public of aid, oil, and taxes going to the government. Hypothesis 1 expects positive treatment effects for taxes compared to oil or aid on the action index, in which citizens are more likely to act for taxes. As is clear from this figure, for this index there are no meaningful differences between conditions for tax and oil, tax and aid to government, or oil and aid to government.[5] Hypothesis 2 implies a negative treatment effect for the misappropriation index for taxes compared to oil and aid, since taxes should be less likely to be misappropriated. Again, there is no evidence for this effect. And hypothesis 3 expects a positive treatment effect for the securing of public goods benefits from taxes as compared to

[4]Estimating the complier average causal effect (CACE) is not advised because there is no control condition; rather, we compare multiple treatment conditions, so double-sided non-compliance is not symmetric.

[5]The one significant treatment effect operates in the opposite direction from the theory: Ugandan citizens are more likely to take political action for aid than taxes.

aid and oil. Figure 1 shows no evidence for this hypothesis either. Section G in the appendix, which contains results for each the questions individually, supports the conclusions here. The few marginally significant results go against expectations but are consistent with random chance in the context of multiple testing.

These three empirical implications about citizens' beliefs and behavior flow from the taxation-causes-accountability theory. Probing for citizen awareness of differences across these revenue streams provides an initial test of the plausibility of the microfoundations of this theory. Citizens should realize they are being taxed and should want and be able to track the spending of tax revenue better than windfalls. Citizens should perceive that elites can less readily misappropriate taxes than other revenues for personal or political gain. And citizens should judge that leaders will use taxes more than oil or aid to provide public goods. Our results in Figure 1 suggest no significant support for these micro-mechanisms. Instead oil, aid, or tax revenue that goes directly to the government show no differences in citizens' perceptions of public benefits, anticipation of misappropriation risk, and willingness to take costly political action.

In Figure 2, we display the results from our experiment comparing revenues directed to the government versus revenues channeled through NGOs. Since there are not significant differences among the sources going to the government, we pool the data for aid, oil and tax revenues channeled through the government budget into one group, called non-NGO revenue, which increases the efficiency of our tests.

Here the public does recognize differences between the two channels of delivery. In terms of willingness to take action, Ugandans are significantly more likely to do so for NGO-directed funds than for the other government-directed revenues, supporting hypothesis 4. This is reinforced by the finding that, in terms of misappropriation, Ugandans are more likely to believe that aid, taxes, and oil revenues going to the government budget are significantly more at risk than development money through NGOs, thus supporting hypothesis 6. The belief among Ugandans that NGO-sourced funds are more beneficial than government funds just misses conventional levels of significance, providing weak support for hypothesis 5. Finally, Ghanaians appear to believe that there are more public benefits from NGO-directed funds than from those that go through the government budget, though this result is significant only at the 0.1 level, lending weak support to hypothesis 5. These findings suggest that publics, at least in Uganda, do see differences across revenue sources when they are not deposited into the government budget; those bypassing the government seem to be preferred and even induce more willingness to take action, perhaps because they are judged to be more beneficial (or at least less corrupt).

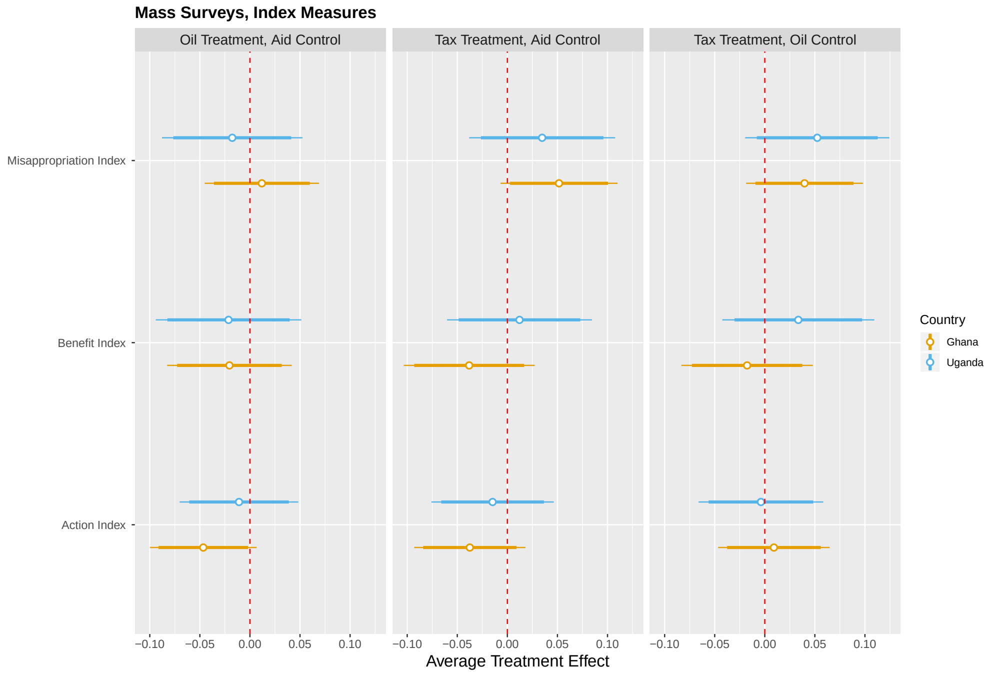

Figure 1: Mass Survey Main Results for respondents who passed manipulation check. Effects in standard deviation units and pooled across five imputed datasets. Estimation obtained using generalized linear models with 95% and 90% confidence intervals shown and enumerator fixed effects.

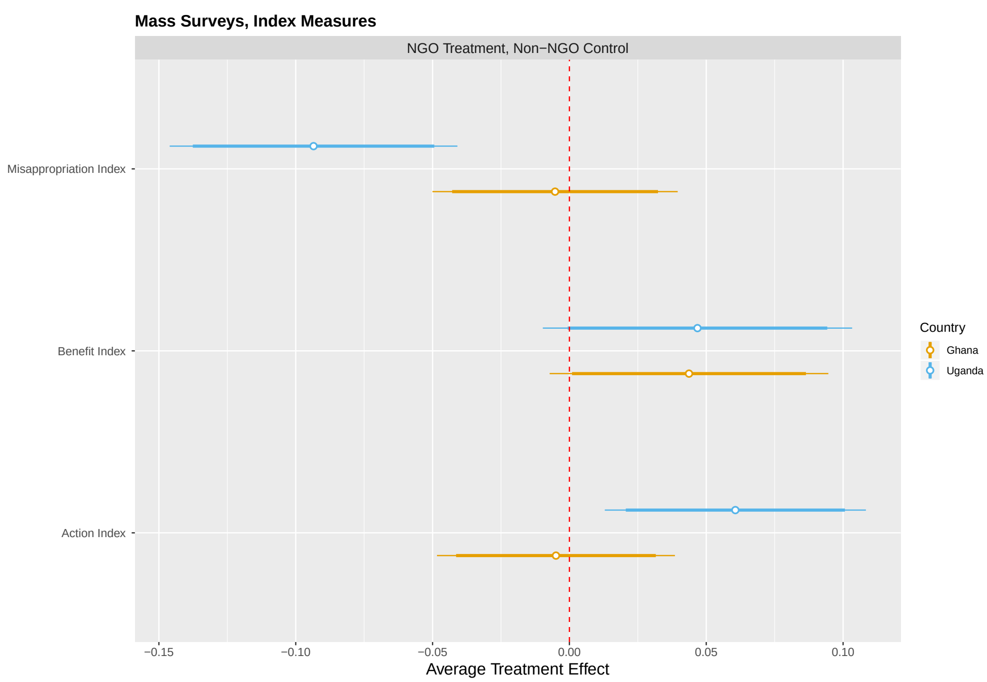

Figure 2: Mass Survey, NGO Pooled for respondents who passed manipulation check. Effects in standard deviation units and pooled across five imputed datasets. Estimation obtained using generalized linear models with 95% and 90% confidence intervals shown and enumerator fixed effects.

MPs

For MPs, we calculated two indexes measuring their sense of how much control and influence (`INFLUENCE`) they have over the different revenue sources and how much public benefit (versus government capture) they thought each source offered (`BENEFIT`). In figures 3-6, we show these results. In terms of the comparison among the three sources that go directly to the government budget, there is some belief that aid actually brings more benefits than oil does for Ghanaians. But there is no evidence that taxes provide more public goods benefits than do aid or oil. In terms of influence, there is no evidence of a consistent view that taxes are more under their control and more able to be directed at their districts than for aid or for oil in either country. The MPs, then, much like the public, do not see taxes as bringing more public benefits or being subject to greater political influence than oil or aid.

For the comparisons of NGO-directed funds versus those going to the government, we expected that MPs would not think they have much control over these funds and would believe that government-controlled funds, especially taxes, would provide more public goods benefits. Given that MPs are part of the government but also as a mechanism for overseeing the government, MPs should not look kindly on NGOs, especially when they distribute revenues to the legislators' own constituents. Our evidence implies that in terms of benefits, MPs do not differentiate between funds that go through the government versus NGOs. We doubt that the MPs would indicate that NGOs are superior, but it is notable that they do not view government funds as more beneficial. Unlike the public, they do not indicate that NGO-directed funds provide more public benefits. Interestingly, in terms of control and the ability to direct the funds, Ghanaian MPs see a difference between NGO-directed funds and government-controlled money. They feel that government-controlled revenues are more under their influence, as we expected. Notably though, in Uganda MPs do not see such a difference. We discuss this difference between Ghana and Uganda in the next section at greater length.

Overall, the MPs, who are well-informed and educated political actors, do not see tax revenues as more publicly beneficial or more controllable than windfalls. Much like citizens, legislators believe that all sources that pour into the government budget directly are similar in the public benefits they may provide and in MPs' ability to influence the funds. Unlike the public, they do not see many differences between NGO-directed funds and those going into government coffers, except in Ghana in terms of influence. This may be due to the fact that MPs, after all, are part of the government, so they may prefer to control their own resources, as other studies note (Findley et al. 2017).

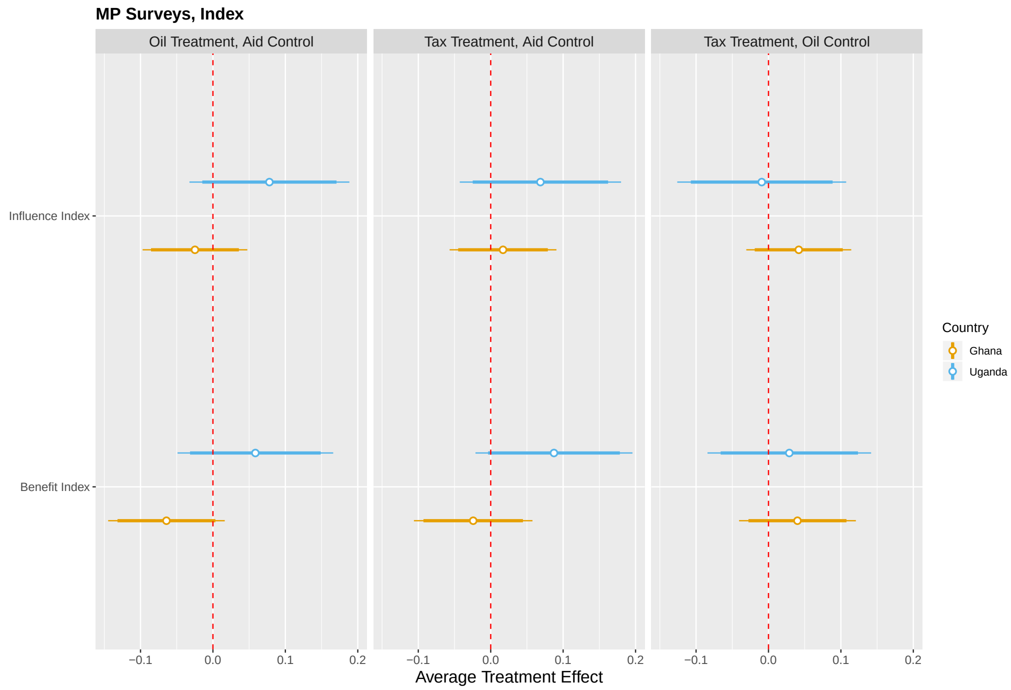

Figure 3: Main Treatment Effects for Government Revenues, Current and Former MPs. Effects in standard deviation units shown for current and former members of parliament. Estimates obtained using generalized linear models 95% and 90% confidence intervals shown and enumerator fixed effects.

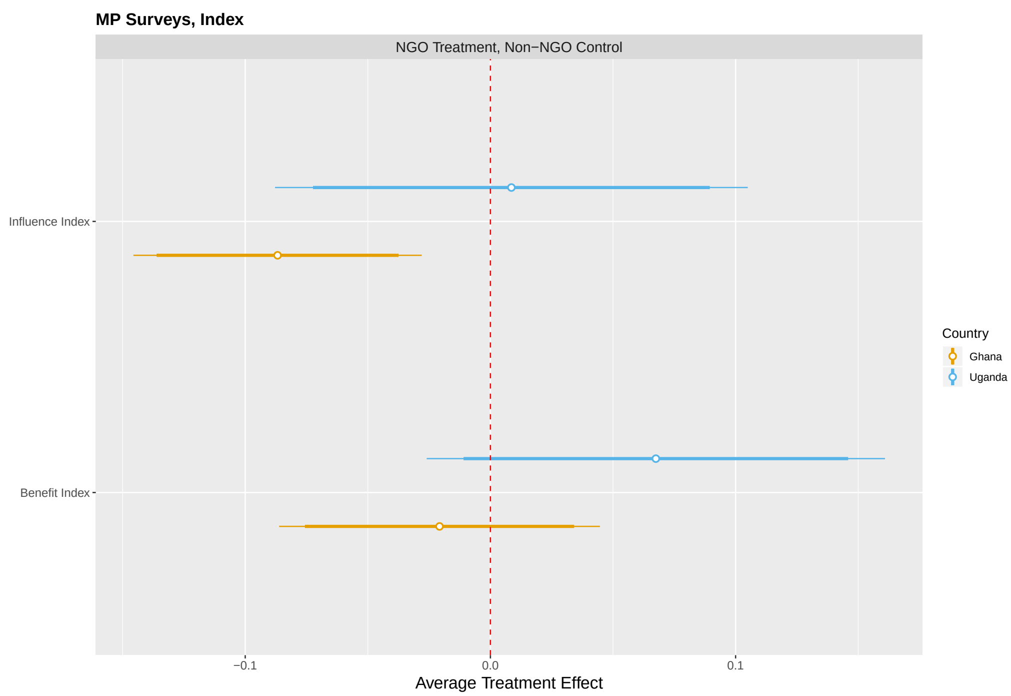

Figure 4: Main Treatment Effects for NGO, Current and Former MPs. Effects in standard deviation units shown for current and former members of parliament. Estimates obtained using generalized linear models with 95% and 90% confidence intervals shown and enumerator fixed effects.

Robustness Checks

We report additional sets of analyses as robustness checks here with details in the appendix.[6] The overall null effects across the government-directed revenue sources may mask different causal effects for different subgroups. The more nuanced version of the taxation and accountability arguments claims that only under certain conditions will taxes induce greater accountability. Unfortunately, many different conditions are identified in different studies; however, we examine some of the most prominent ones. Do our results vary by subgroups that might experience the revenues in distinct ways? We find very little evidence for this.[7]

We identify two important groups here, but examine many others in the appendix. Previous work suggests that wealthy, informed, income-tax-paying citizens will prove most susceptible to the taxation effect (Bates and Lien 1985, Levi 1988). To capture these types of respondents, we created an indicator variable for those who reported paying both direct and indirect taxes and were urban (and thus more educated and wealthy, on average, than rural respondents).[8]

We also examined members of the opposition party in both countries since they may be most likely to feel that tax-based revenues will not be used to benefit them, and hence should seek greater transparency and stricter oversight of tax-based expenditures. We subset respondents by whether or not they self-identified as supporters of the governing party, which may proxy for expectations that the government will be more likely to spend revenues according to their preferences. In neither case do we see significantly different treatment effects for either high- or low-type respondents or for government- or opposition-party supporters. See Section I in the appendix for these results.

Further, we assessed respondents from oil regions separately from those not, those who are not a coethnic with the president, those who have low levels of trust in the government (as proxied by trust in the president), those who feel the government is very corrupt, and those who evince low levels of approval for central government's handling of public goods. Previous research suggests that those with low levels of trust in government may not see taxation as different than other sources (Moore 2008), while other research suggests that an individual's beliefs about the level of public-goods provision should moderate the relationship (Ross 2004). We find no support for these moderating

[6] Section C in the appendix discusses the consistency of our findings here with the pre-analysis plan.

[7] Out of the eleven different subgroups investigated for each comparison group, or over 132 different tests, we find eight tests that are significant at the .05 or .01 levels as shown in appendix section I.

[8] Construction of these variables across countries differs slightly due to available data. In Ghana, where we collected data on taxpaying experience, high-types are coded as those subjects who reported paying a sales or income tax. Because we did not measure taxpaying experience in Uganda, a high-type respondent is one who is in the top quartile of wealth as measured by the standard deprivation battery.

factors, as shown in the appendix Section I.

In no case do we see significant subgroup effects. Critically, this holds even when testing for interactions between oil- and non-oil producing regions in both countries. The null effects on differential treatment thus do not appear to result from combining groups that have opposing causal reactions to the revenue sources. All subgroup types in our representative samples seem to react the same way: they are willing to monitor or sanction at relatively high rates regardless of the source of revenue. The desire for accountability is high in both countries among many different types of groups facing different conditions, but it does not vary substantially by revenue type.

In terms of the NGO comparisons to government-directed funds, the subgroup effects in Section I of the appendix do not shed much light. These factors do not seem to be driving our significant results in Uganda. Beliefs and actions about NGO funds being better than government ones persist across all of the tested subgroups.

For the MPs, we run many of the same subgroups to learn if responses vary across different types of leaders. We look at whether they are in the ruling party or opposition, whether they believe public services in their constituency are good or not, and whether they believe the government is very corrupt. We hoped to examine those who were from oil areas, but their number is too small (only 6 total in Uganda) so we are unable to do this. Appendix Section M reports these results. There are no conventionally significant differences. Null results do not seem to be driven by the key factors assessed by subgroup analysis. MPs just do not see many differences in their influence or the public benefits across the revenue streams.

Discussion

Our findings are not consistent with what we might expect if different revenue sources cause variation in citizen's beliefs about monitoring the government: there was no significantly different willingness to take action to increase the likelihood of transparency or accountability among those who received the tax treatment relative to the oil and aid conditions. However, in Uganda we do see significant differences in willingness to take action and in beliefs about misappropriation for NGO funds versus government-directed money; and in Ghana the public sees more benefit from NGO funds. Respondents in both countries are, in general, willing to take political action to monitor and sanction spending behavior of politicians, but not differentially when the monies all go into the government budget. When funds are directed to NGOs, however, beliefs and actions change and Ugandan citizens become more willing to act because, apparently, they see less likelihood of misappropriation. Overall, citizens showed a strong desire for accountability for all revenue sources entering the government budget; moreover, this did not vary significantly by subgroups, several of which were identified by the more nuanced version of the taxation and representation argument as moderators of the taxation-accountability relationship.

Our study is also notable in that we examine political elites as well as citizens. Accountability is an interaction between political leaders and voters. Each side's beliefs and actions should affect the other's. If citizens are monitoring and sanctioning more for taxes than for aid and oil that go to the government, then MPs should understand this and they too should believe and act in consistent ways. The fact that we find that both citizens and MPs do not treat taxes differentially suggests that both groups perceive all government revenues to be similar. And the fact that MPs, at least in Ghana, think they have more control over such government funds reinforces why citizens may believe more in the public-goods benefits of NGO-directed funds. Examining both MPs and the public allows us to build a more complete picture of how taxes and other revenues affect both sides of the accountability landscape.

Our project focuses on the original argument that taxation causes representation made in seminal works of political economy (Bates and Lien 1985, Collier and Hoeffler 2005, Huntington 1991, Levi 1988, North and Weingast 1989, Schumpeter 1918, Tilly 1990). This claim is often connected to the resource curse, which argues that citizens' accountability pressures for the misappropriation of government revenues is weaker for windfalls than for taxes. Nevertheless, we emphasize that our project does not test all hypotheses suggested by the broader resource curse phenomenon, many of which may well be active. This article explores the single resource-curse implication that windfalls accruing to the government cause citizen quiescence relative to taxes. What is notable is that windfalls bypassing the government may not cause quiescence; citizens may have greater hope for making sure they are well used and thus be willing to take more action. The channels through which non-tax revenues are distributed may matter as much as, or more than, the type of revenue source.

Nor does this study test the endowment effect, which has recently been proposed as a micro-level mechanism driving the effects of taxes on accountability demands (Martin 2014, Paler 2013). Other studies corroborate these findings and suggest a significant accountability effect from taxation tied to feelings of ownership. But revenue-source effects on citizens demands for accountability in principle have not been rigorously tested before the present study.

Second, it could be that the treatment we gave subjects was too weak and failed to elicit the taxation-causes-accountability effect. We did not provide voluminous information to subjects but simply told them a certain sum of revenue was coming to the government from a particular source and that the money was intended for public goods. Other research that uses an extensive information treatment does show that the public demands more accountability when told about new natural resource discoveries in their country (Armand et al. 2018). Our approach has the dual advantage of being both clear and realistic. The revenue source was stated in a straightforward manner, and the vast majority of subjects understood it and could recall it in the manipulation check. The taxation-as-representation literature cited above suggests that identification of the revenue source as taxes that citizens pay should be sufficient to provoke the expected effect. Yet subjects who passed the manipulation check also did not act to monitor taxes in greater proportions than aid or oil.

Moreover, concerns that the treatment may be too weak do not square well with the rest of our findings. The differential behavior of citizens when contemplating NGO-directed funds versus government revenues suggests that they understood the treatment. The problem for citizens seems to be their negative views of how government-directed funds are used, no matter the source. Moreover, many in the public are willing to take action and to pay costs to monitor their government's use of revenues—regardless of source. So all conditions were strong enough to elicit costly monitoring behavior. There is simply no differential effect when revenues accrue directly to the government.

Our interpretation of the null findings focuses on the institutional contexts in many developing countries: in environments of low information, high corruption and a limited tax-base, there may be little reason for respondents to believe that the source of government revenues matters when they all accrue into the government's budget. Our results suggest that respondents view these different revenue sources as equally opaque and equally susceptible to corruption. If transparency is low and misappropriation risk high when funds go to the government, it will be equally difficult to discover if funds have been misused across revenue sources. Likewise, in the presence of high corruption, the source of a revenue stream is unlikely to make a difference in citizens' ability to benefit in purely welfare terms. But funds being directed to an NGO may not be seen as suffering so much from these problems. Like the donor governments who turn to bypass aid when recipient governments are deemed unaccountable, citizens may also view these organizations as more likely to benefit them and thus be more willing to support them and hold them accountable.

Conclusion

Using attitudinal and behavioral measures of willingness to monitor elected officials for the misuse of revenues from taxes, oil, and aid, we have sought to understand when citizens choose to monitor government use of some sources of spending compared to others. We primed citizens with a statement telling them about the taxes they must pay (usually indirect), the fact that these moneys go to the government, and that they are supposed to be used for public goods. We then inquired whether this prime about taxes led to differential political action compared to ones about foreign aid and oil. We used a treatment that more closely approximates the information and political actions available to most sub-Saharan Africans. We focused on demands for accountability, that is, citizens' willingness to monitor and enforce transparency in government action, when told about different sources of government revenue. We compared their reactions to three revenues sources going directly to the government versus one going to NGOs. And we also examined the beliefs and actions of political elites in both countries.

Our identical, nationally representative survey experiments in two developing countries enable us to examine one set of microfoundations for claims about taxes and windfalls by looking directly at individual citizen behavior and beliefs, instead of aggregate measures of national outcomes such as corruption and democracy. Our results suggest that citizens will pay costs to promote accountability, but do not take significantly greater action to monitor taxes over aid or oil when told that the revenues accrue directly to the government. Moreover, they do not perceive greater transparency, misappropriation risk, or propensity toward public goods for one source over another when the government controls them.

In contrast, when aid revenues pass through NGOs the public does perceive a difference. Ghanaians tend to view NGO funds as more likely to benefit the public, and Ugandans see aid channeled through NGOs as less likely to be misappropriated, and they are more willing to take action for NGO funds. All monies accruing to the government look alike to the public in these ways, while funds not going to the government appear to be different in key respects. This difference is exactly what aid donors who give such bypass aid are trying to achieve, and it may be one reason why direct cash transfers from aid donors seem to be more successful than aid given to governments (Amarante et al. 2011, Blattman, Fiala and Martinez 2014).

The finding that the channel through which resources are distributed seems to be the strongest driver of accountability pressures is noteworthy for several reasons. First, it suggests that citizens' willingness to act is driven strongly by inferences about government quality and behavior, which may exist alongside and potentially in opposition to other mechanisms. Existing micro-level work, for example, has found that taxation activates loss aversion in citizens and in so doing raises the expressive benefits to monitoring and sanctioning politicians (Martin 2014). This would suggest that we should see little difference in behavior for non-tax revenue that bypasses the government compared to the same type of revenue—in this case, aid—that is spent as part of the official government budget. While we do not dispute that loss aversion and similar mechanisms exist for taxation and not natural resource revenues, our findings suggest that citizens' accountability behavior is also driven by inferences about the likely fate of revenues as well as their ability to meaningfully influence outcomes.

The second implication of our findings is that poor government performance may decrease accountability pressures by reducing citizens' evaluation of the likely payoff of their actions. If the government is either unable or unwilling to respond to accountability demands, citizens may rationally decide to forgo making them. This will be true even for tax-based revenues, where increased expressive benefits may be outweighed by inferences about the probability that action will yield meaningful change in policy. Seen from this perspective, bypass aid has dual effects. On the one hand, it deprives the government of revenue and an opportunity to develop capacity through the utilization of funds; on the other, it may increase accountability by diverting funds to channels that citizens see as more transparent, more efficacious, and more responsive.

In addition to our citizen surveys, we examined MPs in Ghana and Uganda to learn how they reacted to these revenue sources. Despite being more knowledgeable than ordinary citizens, MPs likewise did not perceive many differences across the revenue sources. MPs did note that they had more control over government-directed sources compared to NGO funds, at least in Ghana, but they were perhaps understandably unwilling to claim that government-directed sources provided greater public benefits than NGO funds. This difference between citizens and political elites is consistent with other findings that citizens believe foreign aid may have more benefits than government projects but MPs favor government spending over aid (Findley et al. 2017).

We explored many subgroups and found no significant alternative explanations for our null results among them. We did not find much support for some of the factors suggested by more nuanced versions of the taxes-cause-accountability arguments. This novel set of findings suggests that the behavior and actions of citizens and political elites toward monitoring of government spending does not differ according to source but does differ according to the channel of delivery. Our findings do not rule out all resource-curse claims since the study did not examine other causal pathways for the political effects of windfalls. The findings do suggest, however, that foreign donors may have a valid point when they use bypass aid for more unaccountable governments; such NGO-directed aid may be more accountable as citizens believe it produces more benefits in Ghana and is less susceptible to misappropriation and induces greater action in Uganda. Moreover, MPs, at least in Ghana, believe they have less control over NGO funds, which may affect citizens' beliefs.

Our tentative answers to why we do not see taxes leading to greater action for accountability relative to other government-directed revenues rest on two ideas that require further research. First, citizens in such poor countries may imbue non-tax resources with feelings of ownership just as they do taxes, leading them to be willing to take action at similar levels. All forms of revenue may be seen by citizens as important sources of public goods that can improve their lives. This may explain the pattern in our data—and in other published work on taxation (Paler 2013)—in which subjects assigned to non-tax conditions engage in political behavior at very high rates despite expectations that they should care little about non-tax revenues.

Second, the institutional environment may affect citizens' ability to differentiate taxes from non-tax revenues. The use of indirect value-added taxes and low reliance on income taxes for government revenue may be factors. Our treatment primes citizens about the taxes they will pay for their purchases as well as any income tax they might pay. In addition, the degree to which political institutions within a country enhance transparency about revenues, curb corruption and clientelism, and allow for punishment of political elites may be important mediating factors. In institutional environments that fail to do these things, citizens may not differentiate among revenues both because they believe any source entering the government budget can be diverted away from its intended ends, and they desperately want the public goods that could be provided. This idea fits well with our finding that citizens do treat NGO-directed funds differently, that they believe they are more beneficial and less susceptible to misappropriation and hence are more willing to take action to secure them. Further research should explore these possibilities. In this sense, non-tax revenues directed to the government budget thus may produce just as much, or as little, representation as do taxes.

Also notably, despite significant contextual differences between Uganda and Ghana, we do not find many differences in our results across countries in terms of government-directed funds. While Ghanaians felt that NGO funds were more beneficial, Ugandans had a much stronger view of the differences across the NGO and government funds. Ugandans thought NGO funds were less likely to be misappropriated and thus were more likely to act to monitor them. This difference could be due to the different institutional environments in the two countries. Ghana is significantly richer, more democratic, and more dependent on oil rents than Uganda, which is much more aid dependent. Uganda is also much more reliant on NGO-directed aid and has a less accountable government and party system. Citizens there may be more hopeful about foreign aid in general and about NGOs as well (Findley et al. 2017). But in neither country does priming them about their tax money used by the government prompt citizens to demand or pay the costs for greater monitoring and accountability compared to windfalls going to the government. Our data from the two countries increase confidence in our null results. For many poor developing countries then, in the eyes of citizens, taxes and non-tax revenues accruing to the government may have similar effects and therefore prompt similar willingness to monitor their governments.

Our results may provide a more optimistic picture of non-tax revenues. Windfalls may be less of a curse than is conventionally believed, at least in the minds of citizens who experience their effects. Of course, our results do not rule out other channels by which aid and resource revenues might constitute a development "curse," but they do suggest that at the individual level there may not be a direct relationship between taxes and greater accountability. Finally, our results provide some reinforcement for donors' rationale in using aid channeled through NGOs as a way of bypassing governments, at least in terms of how such bypass aid is perceived by the public and, to a lesser degree, by political elites.

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