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Attitude Towards Paying Tax, Government Performance and Inflation in Africa

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Abstract

This paper analyses the effect of individuals' perception of government public policies, confidence in institutions, and economic expectations on the willingness to pay tax, taking into account the moderating role of macroeconomic context such as inflation. The empirical framework is based on a contextual logistic model with more than 140 000 respondents from the Afrobarometer survey data covering Round 4 (2008, 20 countries), Round 5 (2011-2013, 34 countries), Round 6 (2016, 36 countries) and Round 7 (2019, 34 countries) corresponding to the period 2008-2019. The findings reveal that citizens who appreciate the current government performance in creating jobs, fighting corruption, trust in the executive office and have good economic expectations are more willing to pay a tax or fee. Regarding the moderating role of inflation, the findings suggest that individuals' perception on public policies, their confidence in the president or economic expectation do not attenuate or moderate the negative effects of inflation on attitude towards paying taxes. The findings are robust to sensitivity analyses. They theoretically improve insights into fiscal contract theory and policy implications are discussed.

Keywords: Attitude; paying tax; government performance; inflation
JEL Classification : E31; H11; H25; O55

1.Introduction

There are four principal fundamentals that motivate the current study in the light of stylized facts and evidence from the relevant scholarly and policy literature on the subject, especially as it relates to inter alia: (i) debates on the relevance of paying taxes in the light of government effectiveness and (ii) gaps in the extant scholarly literature that is focused on the themes being investigated. The considered premises are expanded in what follows in the same chronological sequence as highlighted.

First, concerning the debate on the relevance of paying taxes, it is important to highlight that governments depend on taxes to fund socio-economic and development projects while citizens have to comply with attendant tax obligations in order to facilitate the mission of the government (Eubank, 2012; Asongu, 2015). Moreover, citizens are prepared to fundamentally comply with their tax obligations basically in exchange for better governance standards that are reflected in microeconomic wellbeing as well as macroeconomic performance (Koomson et al., 2025). It follows that there is a social contract binding the citizens to fund the functioning of the government provided government is willing to use these corresponding tax resources optimally for the wellbeing of all (Asongu, 2016; Brunner et al., 2024). In developing countries such as those in Africa where there are some forms of reliance on external sources for government income such as foreign aid, some governments may be less accountable to citizens, not least, because tax resources do not reflect the main source of government income. The present study complements the policy and scholarly literature on the subject by analyzing the impact of individuals' perception of government public policies and their confidence in institutions' economic expectations on their willingness to pay tax, taking into account the moderating role of the macroeconomic context such as inflation. The positioning of this research in view of existing studies builds on a gap in the corresponding literature.

Second, with respect to the gap in the existing literature from the studies engaged in Section 2 on the subject, the closest to the current positioning is Koomson et al. (2025) which has examined the perception of citizens of the performance of government as well as the corresponding impact on the willingness to comply with their tax obligations. It is relevant to point-out that the attendant study has employed data from the Afrobarometer Round 8; data which covers 39,624 observations across 34 African countries and employed the Ordinary Least Squares (OLS) estimation approach. The findings reveal that while citizens are usually associated with an attitude that is positive towards their willingness to pay taxes, their corresponding perception on the performance of the government greatly affects their decision to comply with such tax obligations. Moreover, the authors establish that their perception of high government performance in the resolution of conflicts does not positively influence their willingness to pay taxes while contrarily, the following perceptions on the performance of governance positively affects their willingness to pay taxes, namely: provision of health facilities; protection of the rights of citizens that are disabled and effective economic management.

Another very close paper to the present study, though non-contemporary is Boly et al. (2021) which examined the impact of government quality in the light of corruption on the attitudes of citizens to comply with their tax obligations. The study also adopted data from the Afrobarometer, covering 36 countries for the period 2011 - 2015. It is established in the study that corruption which is sourced from the office of the president has a negative significant impact on the attitude that citizens have toward tax compliance. The findings also revealed that with the improvement of the perception of corruption at the highest organs of power, the attitude of citizens toward compliance with their tax obligations will also increase. In other words, higher tax income is associated with more positive perception of the absence of corruption at the highest organ of executive power which is the presidency.

The present study departs from Boly et al. (2021) and Koomson et al. (2025) in the following ways: (i) Firstly, contrary to the underlying studies, we focus on the macroeconomic environment effect on the relationship between tax compliance and citizens' perception on government performance. In effect, these previous studies only hypothesize that government performance or people's trust on their leaders is sufficient to increase willingness to pay tax. However, our paper suggests that it is not the case, not least, because it is also contingent on the macroeconomic environment and especially the price level. As we have demonstrated in our paper, the hypothesis is valid only if prices are stable. Secondly, this study employs a methodology that allows us to take into account the macro environment and deal with endogeneity, contrary to Koomson et al. (2025) who used OLS regression. Third, several robustness checks are employed in this study. Moreover, a large sample is employed in the present exposition, not least, because we use 4 rounds of the Afrobarometer data while the underlying studies used one wave. Thus, in summary, the present study is distinct from Boly et al. (2021) and Koomson et al. (2025) in terms of its objective, which is to assess the relevance of the macroeconomic environment in the nexus between willingness to pay tax and government performance using interactive regressions. Inflation should be considered in studies related to perceptions of government performance, trust in institutions, and tax attitudes, particularly in Africa. That is why it is relevant to motivate this position theoretically. In effect, we draw on the fiscal contract theory and macroeconomic literature to explain inflation's significance in the relationships between government economic performance and attitudes towards paying taxes.

Theoretically, inflation acts as a macroeconomic signal of government economic performance, eroding the perceived value of public goods and services funded by taxes (Tanzi, 1977; Feldmann, 2009). More specifically, inflation peaks reduce real income and purchasing power, leading citizens to question the fairness of the fiscal contract; where taxes are exchanged for stable economic conditions and welfare benefits (Asongu, 2015). This can amplify distrust if citizens attribute inflation to poor governance, such as fiscal mismanagement or corruption, weakening the vertical (citizen-state) and horizontal (citizen-citizen) dimensions of the contract (D'Arcy, 2011). In developing countries and specifically in African countries, where inflation volatility is often higher due to external shocks (e.g., commodity price fluctuations, currency devaluations, inter alia), it disproportionately

affects low-income households, fostering perceptions of inequality and reducing tax morale (Boly et al., 2021; Koomson et al., 2025). For instance, empirical evidence from South Africa shows that inflation expectations positively influence taxation attitudes by signalling economic uncertainty, which undermines confidence in government (Maphumulo and Nxumalo, 2023). In Africa specifically, where many economies rely on informal sectors and face chronic inflation (e.g., averages exceeding 10% in sub-Saharan Africa during the period 2008 - 2023, based on World Bank data), inflation moderates the performance-tax nexus by heightening economic expectations. These positions in the literature clarify that inflation is not arbitrary but a critical moderator in contexts of economic vulnerability, directly linking to our hypothesis that positive perceptions may fail to offset inflation's negative effects on willingness to pay tax.

In the light of the above, in this study, we analyse the effect of individuals' perception of government public policies and confidence in economic expectations on the willingness to pay tax, taking into account the moderating role of macroeconomic context such as inflation. The empirical framework is based on a contextual logistic model with more than 140 000 respondents from the Afrobarometer survey data. The findings reveal that citizens who appreciate the current government performance in creating jobs, fighting corruption, trust the executive office and have good economic expectations are more willing to pay tax. Regarding the moderating role of inflation, the findings suggest that individuals' perception on public policies, their confidence in the president or economic expectation do not attenuate or moderate the negative effects of inflation on attitude towards paying taxes. The findings are robust after several sensitivity analyses.

The rest of the study is organized in the following manner. This introduction is followed by Section 2 which discusses the theoretical insights and the relevant empirical literature focused on the key themes of the paper. Section 3 describes the data and corresponding empirical approach that is used in analyzing the data. The empirical findings are disclosed in Section 4. Section 5 concludes with implications for policy makers as well as provides insights into limitations and future research directions.

2. Theoretical Underpinnings and Empirical Literature

2.1 Theoretical Underpinnings

According to fiscal contract theorists, individuals agree to pay taxes because they receive public goods in exchange (Tengs, 2020). Hence, individuals may be unwilling to pay taxes if the macroeconomic environment is not conducive for them to generate income for the taxes on the one hand and on the other, if such taxes are not used to improve the macroeconomic environment to enable them generate income for future taxes. Although it originated in Western Europe, the fiscal contract theory has also been used to understand the low levels of tax compliance in developing nations. A well-established line of research tests the fiscal contract theory in these countries and largely finds that dissatisfaction with public services correlates with decreased tax compliance (Daude et al., 2012; Ali et al., 2014; Tengs, 2020). However, the underlying strand of research does not provide a complete picture, as it concentrates primarily on the state's provision of public services and/or the satisfaction levels of citizens regarding those services, thus overlooking interactions among citizens.

As tax fund public goods, it presents a classic collective action dilemma (D'Arcy, 2011; Tengs, 2020). When opting to engage in a social contract with the state, citizens also agree to a similar type of partnership with one another. Establishing the fiscal contract necessitates that citizens consent to sharing a portion of their wealth with their fellow citizens to support a welfare state. Therefore, the fiscal contract is vertical; between the citizens and the state, but also horizontal; among the citizens (D'Arcy, 2011; Tengs, 2020). Meeting the first component is theoretically simple; it requires the government to deliver public services. Satisfying the latter is more complex; it demands collective action among citizens, who must be willing to share some of their own wealth with each other. This horizontal fiscal contract, which entails citizens coordinating their actions towards the government and requesting public services, is not easy to establish empirically. Hence, in the light of the motivation of the present study, the vertical fiscal contract is more consistent with the problem statement.

2.2 Empirical Literature

The extant literature on the willingness to pay taxes is discussed below. While it is difficult to desegregate the empirical literature into various strands, not least, because most of the studies touch on three main factors (i.e., social, economic and political), the attendant literature is nonetheless engaged in what follows with a perspective in mind that there are three main factors that affect the willingness of citizens and businesses to pay taxes to the government.

Kehinde (2025) evaluated the impact of institutional quality on the disposition to pay tax in Ilorin, Nigeria. Findings from the study revealed that efforts of the government in making tax evasion complex increases tax payers' eagerness to pay taxes. In other words, any strict measures enforced by the government with the aim of making it difficult for people to evade tax greatly improves compliance. It was also discovered that high income levels positively

impact tax compliance, implying that rich people are more willing to pay taxes. On the contrary, the size of household depicted a negative impact on tax compliance since individuals with large families are more likely to avoid tax due to financial burdens. The study recommended that tax authorities should endeavor to make tax evasion difficult and ensure they enforce strict penalties so that institutional frameworks can be enhanced. It also suggested that authorities should adopt progressive tax policies in order to increase the rate of fairness and compliance.

Giese and Heinemann-Heile (2024) empirically evaluated firms' ability to pay local business tax in Germany with a primary focus on the effect of trust and public goods. The study employed survey data from small and medium sized enterprises (SMEs) and discovered from the result that trust in tax revenue management plays an important role than mere creation of public goods. However, while public goods do not impact tax compliance, the study revealed that private related public goods like healthcare, recreational services and daycare positively influenced tax willingness. On the contrary, business-related public goods like vocational schools and roads do not show any significant impact. It is also discovered that an increase in a trust standard deviation can lead to a 21% increase in the willingness to pay taxes, implying that trust in how the government manages tax revenue substantially increases firms' ability to pay taxes. The study recommended conclusively that the government should concentrate on building trust through promoting transparency in the utilization of tax revenue.

Tajuddin and Eforis (2023) studied the factors that impact the willingness to pay taxes among non-employees in Jakarta, Indonesia. Findings from the study showed that knowledge of tax regulations has a significant and positive influence on tax payers' ability to pay taxes. This implies that people are more likely to comply and pay tax when they perfectly understand tax rules, responsibilities and rewards. While this holds, the paper revealed that the perception of tax system effectiveness, quality tax service and tax obligations do not significantly impact tax compliance. The study recommended that governments should prioritize tax education and improve it so that tax knowledge can be easily accessible either through training programs, social media campaigns or online resources, as it will potentially increase tax compliance without even demanding any direct contact with the ruling government.

Stantcheva (2021) explored how people reason in an attempt to understanding tax policy in the United States. The study employed large scale surveys and experiments that accessed the knowledge, beliefs and perception of people about tax policies. The study found that social preferences, concerns about fairness and trust in government predominantly influence individuals support for tax more than economic efficiency. The paper highlighted that while people that prioritize income and wealth inequality as a critical challenge are more likely to prefera progressive form of taxation on the rich, others who believe that tax retards work and entrepreneurship are less likely to prefer such progressive form of taxation. It was also revealed in the study that democrats usually prefer higher taxes on the wealthy as they perceive taxation

as a technique for alleviating inequality. On the other hand, republicans agreed that high tax only favors lower tax rate and further retards economic growth. The study recommended that the government should raise public awareness of tax policies and promote transparency in tax revenue utilization.

Jacques (2021) studied the relationship between socioeconomic status, ideology and unwillingness to pay taxes. The study argued that socioeconomic status, political ideology, occupational group and welfare state regimes are key determinants of tax policy. It was also found from the study that the willingness to pay taxes is positively related with higher income and educational levels of individuals especially among people with left-wing ideologies. The income effect connotes the satisfactory level for accepting higher taxation, and poorer citizens may support increased spending but refuse to pay extra taxes themselves. On the other hand, the education effect improves the understanding of the relationship between taxation and public services which in turn increases support for taxation. Additionally, the study demonstrated that the willingness to pay also depends on people's ideological orientation which can be described in terms of the left-wing individuals (i.e., people that their high socio-economic status relates with a higher willingness to pay, since they value public goods and redistribution) and right-wing (i.e., rich people that tend to resist higher taxes and prefer private services over state-funded welfare). The study highlighted that educated people are more politically sophisticated and less likely to be misinformed about any tax system, and therefore recommended that governments should create a unifying effective policy agenda.

Ongeto (2020) examined the issues influencing tax payers' willingness to pay taxes with a primary focus on small and medium enterprises in Arusha, Tanzania. The study recognizes three principal factors such as tax payer perception of government spending, taxpayer ethics and tax payer awareness of penalty offenses. The findings from the study showed that social determinants which include government spending, play the most crucial role as compliance is strongly connected to trust in government. Moreover, the economic and political determinants such as penalties and tax ethics and governance also contributed. The study argued that when government evidently invests in healthcare, education and infrastructure, tax compliance will increase drastically. This implies that tax payers are eager to obey if they confirm that their tax revenue is being used productively. The study also observed that corruption reduces tax morale while awareness of tax penalties increases tax compliance. It conclusively recommended that state authorities should increase transparency in tax revenue utilization and education of tax payers on compliance, to improve tax morale and voluntary involvement.

Jacques (2019) investigated the impact of political coalition on the willingness to pay taxes in advanced industrial democracies utilizing survey data from the International Social Survey (ISS) program. Findings from the study showed that attitudes towards tax are influenced by occupational status and preferences for public spending. The study revealed that highly

educated socio-cultural individuals support higher taxes and believe in long-term public spending because investment in education and environmental protection are matters of crucial concern to them. However, low-skilled service and production workers usually want the rich to bear the tax burden as they are unwilling to raise their own taxes. Findings pinpointed that the center-right coalition which consist of business experts, small business owners and large employers usually have mixed perceptions about higher taxation. For instance, small business owners typically have mixed perceptions because they assist higher taxes on the wealthy people while contrasting tax on their own business. The study therefore recommended that open-minded political parties should balance tax policies that satisfy investment-oriented experts and consumption-oriented low-income voters so that internal tensions can be resolved.
Cullen, Turner and Washington (2021) examined the linkage between political alignment and attitudes towards government and tax evasion. The study employed the individual level survey data and county-level tax records to examine if people who assist the ruling government tend to comply with tax laws. The result from the study showed that trust in government plays a key role in tax compliance. For example, individuals that share the same political party with the president tend to understand the government positively and also believe that their taxes are utilized transparently. The study pinpointed that while this trust results to higher tax compliance, those who oppose the ruling government tend to invade taxes. The study recommended that governments should enhance public trust and transparency in tax spending so that voluntary tax compliance can be increased. It also suggested that tax revenues should be utilized in the fight against tax evasion, particularly among citizens who barely support the ruling government.
Setyonugroho and Sardjono (2013) analyzed the issues influencing individuals' willingness to pay taxes in Pratama, Indonesia. Three major factors affecting people's eagerness to pay taxes were found in the study and they include: knowledge and understanding of tax rules, perception of tax system effectiveness and quality service. In the first aspect, the study showed that people who understand tax regulations, their duties and their rights, tend to comply easily and tax payers with a high awareness of tax rates and penalties are more willing to pay taxes than those without these awareness traits and faculties. In the second aspect, the study demonstrated that tax payers are more eager to pay taxes when they can confirm the tax system is just and efficient. In other words, people only comply when they believe their tax contributes to public services. In the last aspect, increase in tax service quality such as online tax filling and ease of payment can improve tax compliance. The study recommended that tax authorities should promote quality service and also educate tax payers on tax regulations.
Ehrhart (2009) studied the political economic factors that impact tax collection in developing countries, using data from 78 countries spanning from 1990 and 2005. Results from the study showed that a higher level of democracy can lead to a better tax collection, implying that people are more eager to pay taxes in democratic countries particularly when they feel

included and well represented in political matters. It is also revealed that transparency and accountability in democratic institutions increase tax morale and further promote compliance. Importantly, the study revealed that governments that possess strong executive checks and balances tend to implement effective tax policies, and when political authorities face less opposition, they tend to favor special interest groups, offering tax exemptions that reduce tax revenue. The study conclusively recommended that emerging countries should refine their democratic systems and apply political constraints on authorities so that corruption and tax exemptions for special interest are alleviated.

Compared to the previous literature discussed in the introduction and in the present section, we can identify several gaps. In effect, studies examine micro-level mediators (e.g., fairness with respect to Ali et al. (2014), and civic morality in fairness and tax morale in Castañeda (2024)), few address macro-level factors like inflation as moderators in developing countries: exceptions include Maphumulo and Nxumalo (2023) on South Africa and Ehrhart (2009) on democracy's role in tax mobilization. To the best of our knowledge, there is no study which has examined inflation's moderating effect on the performance-tax nexus using multi-round Afrobarometer data across Africa. This positions our study as filling this void, as inflation that isprevalent in Africa, signals governance failures and erodes the fiscal contract's perceived equity (Tengs, 2020; Loewe and Albrecht, 2023). Hence, in the light of the arguments provided in the introduction on the contribution of this study to the extant literature and a more comprehensive review of the empirical literature in this section, the present study extends prior work by introducing inflation as a macro moderator within the remit of interactive regressions and robustness checks. In essence, we analyse the effect of individuals' perception of government public policies and confidence in economic expectations on their willingness to pay tax, taking into account the moderating role of macroeconomic context such as inflation.

3.Data and Empirical Approach

The objective of this section is to present and describe the variables we used. It is also to disclose the model employed to evaluate the relationships between people's opinion on government effectiveness and tax compliance, contingent on inflation.

3.1 Data and variables

The individual characteristics are constructed from Afrobarometer surveys. Afrobarometer data are representative surveys made in African countries and the objective is to collect information about people's opinions on social, economic and political issues. We append data covering the 2008-2019 period corresponding to Round4 (2008, 20 countries), Round 5 (2011 - 2013, 34 countries), Round6 (2016, 36 countries) and Round7 (2019, 34 countries).

Our dependent variable is focused on the question related to citizen's attitudes towards paying tax. The question is to know whether people have refused to pay a tax or a fee to the government in the last year. The possible responses are: "No, would never do this", "No, but would do this if had the chance", "Yes, once or twice", "Yes several times", "Yes often", "Don't know" and "refused to answer". We consider "Don't know" and "refused to answer" as missing values and dichotomize our dependent variable as following: "1" if "No, would never do this" and "0" otherwise. We dichotomize this into a binary indicator to capture voluntary willingness than mere behavior. Independent variables include: (i) perceptions of government performance such as handling job creation, stabilizing prices, narrowing income gaps, reducing corruption, institutional trust and economic expectation to represent an outlook on the economy compared to the previous 12 months and (ii) socio-demographic characteristics such as age, place of residence and education level.

Macroeconomic indicators such as consumer price index (CPI), gross domestic product (GDP) growth and GDP per capita are extracted from the World Development Indicators database of the World Bank. These macroeconomic indicators represent economic context, as high inflation may signal governance failures and erode tax morale. Since some rounds of the surveys are administered over a period of time, these variables are the mean of the values over the period of time for that round. In Table 1, we provide the data description of all variables used in this study and their summary statistics.

3.2 Empirical Approach

In order to assess the role of inflation on the relation between tax compliance and citizen's perception on government effectiveness, we use a logit contextual model. This approach is justified by the fact that the respondents are nested within countries

The objective is to estimate the probability that a citizen i in a country j interviewed at round t, $(t = 4, 5, 6, \text{and } 7)$ has a positive attitude towards tax payment conditionally to both individual

characteristics and the price level in his country. Let us denote this probability by ϑ_{ijt}. Thus, the equation we estimate is written as follows in Equation (1):

$$\vartheta_{ijt} = Pr(y_{ijt} = 1 \,/\, \omega_{ijt}) \quad (1)$$

Were,

$$\omega_{ijt} = \beta_1 \eta_{ijt} + \beta_2 cpi_{jt} + \beta_3 \eta_{ijt} \neq cpi_{jt} + \sum_{k=1}^{K} \gamma_k x_{kijt} + \sum_{h=1}^{H} \alpha_h Macro_{jt} + t + z_{ijt} u_j + \varepsilon_{ijt}$$

η_{ijt} represents the people's perception of government policy such as efforts keeping prices stable, creating jobs, fighting corruption, narrowing income gaps, confidence in public institutions and expectations in economic conditions and cpi_{jt} represents the Consumption Price Index of country j at round t. From this equation, with the interaction term $\eta_{ijt} \neq cpi_{jt}$, it becomes possible to capture the relationship between people's perception on government's performance or confidence on institutions and attitude towards paying tax depending on the level of inflation. β_3 is our coefficient of interest which represents the cross-derivative of ϑ_{ijt} with respect to both η_{ijt} and cpi_{jt} $\left(\frac{\partial^2 \vartheta_{ijt}}{\partial \eta_{ijt} \neq cpi_{jt}}\right)$ while β_1 is the measure of the direct effect of η_{ijt} on the outcome indicator $\left(\frac{\partial \vartheta_{ijt}}{\partial \eta_{ijt}}\Big|_{cpi_{jt}=0}\right)$. With this specification, we have the possibility to evaluate the decision of a citizen toward paying tax when he has certain perception of government actions depending on the price level. $Macro_{jt}$ is a vector of macroeconomic variables related to economic growth and development and x_{kijt} are individual characteristics control covariates.

ε_{ijt} is not correlated to u_j and is distributed as a logistic function $\left(0, \frac{\pi^2}{3}\right)$.

In this paper, a random-intercept specification is used, $z_{ijt} = 1$ and u_j is decomposed into an intercept common to all countries (β_{00}), a term representing the country level fixed coefficient (c_j) and a country specific random term (v_j), as apparent in Equation (2):

$$u_j = \beta_{00} + \alpha c_j + v_j, \quad v_j \sim \mathcal{N}(0, \sigma_v^2) \quad (2)$$

So, the global random term is split up into a random country specific error term (v_j) and an individual-level error term (ε_{ijt}).

4. Empirical Results

In this section the baseline findings of the relationship between people's perception and confidence on government's management on paying tax contingent on the moderating role of inflation are presented at first. In a second step, we proceed to the robustness and sensitivity analysis.

4 1. Baseline Findings

The estimated baseline findings are reported in Tables 2 and 3. Table 2 shows the estimated coefficients. We run 10 regressions corresponding to the 10 columns. In the first column, we start the empirical study by including only socio-demographic characteristics. From Columns 2 to 7, we run the same regressions by controlling citizens' confidence in institutions, government actions on creating jobs, stabilizing prices, fighting inequality and corruption as well as the individual's economic expectations. From Columns 8 to 10, we introduce macroeconomic indicators such as CPI, GDP per capita and GDP growth.

For all regressions, the likelihood ratio test comparing the mixed effects model to ordinary logistic regressions is highly significant for data generating process. Overall, from the estimated coefficients of socio-demographics characteristics, some interpretations are apparent. A positive estimated parameter indicates a positive association with the probability of having a positive attitude towards paying tax or a fee to the government, while a negative estimated parameter indicates a negative association with this probability. The estimated coefficient of age is negative while that of the squared age is positive and significant at 1% level indicating a non-linear relationship between age and the probability of paying tax. This result indicates that tax compliance decreases with age but that, from a certain level, entering old age, the probability of attitude towards paying tax or fee to a government increases again. Indeed, people living in urban and peri-urban areas have a higher probability of paying tax comparatively to those who live in rural areas. The estimated parameter of education level is positive and significant in most of the regressions. Such result suggests that the more the respondent has a higher education level, the more he/she has a higher probability of positive appraisal of paying tax.

In Columns 2 to 7, we include an individual's confidence on institutions, perceptions on the government's actions and economic perceptions. The findings can be summarized as follows. The estimated coefficient of people's confidence in the president on tax payment is positive and significant at 1%. This means that people who are confident in the executive office (president) have a significantly higher willingness to pay tax or fee to the government comparatively to a citizen who do not trust the president. The estimated coefficient of handling jobs is also positive and significant at 1% level. Thus, an individual who appreciates the current government's actions in handling the creation of jobs has a higher probability of accepting to pay tax, than does a citizen who does not appreciate the government's management of employment. Indeed, the estimated parameter of handling the fight against corruption is positive and significant at 1% level. Such a result means that individuals who appreciate current government performance in handling the fight against corruption have a higher probability of accepting to pay tax, than individuals who perceive that current government actions towards fighting corruption are poor. This finding confirms those of Boly

et al. (2021). Accordingly, these authors attempted to establish a causal relationship between corruption and tax attitude and found that the perceived level of corruption in the executive office has a significantly lower probability of having a positive attitude towards paying tax. When we consider people's economic expectations, we note a positive and significant estimated coefficient. Thus, the results indicate that an individual who responds by "better" or "much better" to the question on country's economic conditions compared to 12 months ago, has a higher probability of responding by "no, would never" to the question on refused to pay tax or fee to the government.

Contrarily to these variables, we found that people's perception of government actions towards handling the stabilization of prices and fighting corruption has no significant impacts on attitude towards paying tax.

When we turn our analysis towards macroeconomic variables, we can note that the coefficients estimates are significant at the 1% level with different signs. In effect, the estimated coefficient of CPI is negative. More precisely, people residing in a country where prices increase are associated with a lower probability of being willing to pay a tax or fee to the government. Economic growth and GDP per capita have positive and significant coefficient estimates showing that favourable episodes of economic cycles reinforce people's positive attitude towards paying tax.

Overall, our empirical results corroborate with those of the existing literature in which authors have demonstrated that corruption and distrust in public institutions may have negative effects on willingness to pay tax (Boly et al., 2021; Habibov et al., 2017). Now what about the role of macroeconomic environment, and especially inflation in the relation between tax compliance and people's perceptions on government actions and their economic outlook? In the next section, we attempt to respond to this question.

4.2 The Role of Inflation

Now we turn to the estimations regarding the role of inflation on the relationship between people's perception of government performance, confidence in institutions or economic expectations and tax willingness. In order to have a better description, we carry out an in-depth analysis of the interaction term by comparing the effects. The marginal effects of this strategy are presented in Table 3. For every equation, we add a test to compare the marginal effects. The objective is to test whether the indirect effect is statistically different depending on the people's perception of government performance, confidence or economic expectations. At first, we compute the slope of the dependent variable (people's perception of government actions, confidence in institutions or economic expectation) on the independent variable (attitude towards paying tax) when the moderating variable (i.e., inflation) is held constant at different combinations of higher and low values. In the second step, we test whether the differences among all pairs of slopes are significant. Two features are noticed from the table. Firstly, inflation has negative effects on the willingness to pay tax both for people who trust or distrust institutions, appreciate or do not appreciate the

government's performance and for people with good or bad economic expectations with the exception of handling stabilizing prices. In effect, for both outcomes, the findings reveal that, regardless of handling stabilizing prices, price level negatively affects tax willingness for whatever people's perception on government performance, confidence in institutions or economic expectations. This finding suggests that whether or not the citizen is satisfied with public policies, the negative effects of inflation on tax willingness remains. Secondly, with the exception of handling stabilizing prices, the pairwise compared effects indicate no significant differences between the two groups of individuals (i.e., people who are satisfied with public policies, trust or distrust institutions and people who have good or bad economic expectations).

4.3 Robustness Check and Heterogeneity

In this section we further explore sensitivity analysis in order to test the robustness of our previous estimates in several ways such as alternative measure of the dependent variable, handling outliers in the data, explore heterogeneities with different socioeconomic characteristics and split the sample into countries level of income and development.

Alternative measure of tax compliance. We replace the dependent variable by individual's answers to the question: " *for each of the following statements, please tell me whether you disagree or agree: the tax authorities always have right to make people pay tax*". we dichotomize a variable *« people must pay tax »* with 1 for citizen who agree with the statement and 0 otherwise. The results of this first sensitivity analysis are reported in Table 4. Consequently, the findings provide support of our baseline results. In effect, the marginal effect of inflation on attitude towards paying tax is negative whatever the individual's perception on government public policies, confidence on institutions or economic expectation. However, pairwise compare effects are significant for handling creating jobs, stabilizing prices, reducing inequalities and economic expectations.

Handling managing outliers. In a second robustness check, we apply a log transformation of the data instead of removing the outliers. In effect, outliers can skew results and therefore lead to misleading our conclusions. Since a number of observations for CPI are negative, we transform the data using the following technique in Equation (3):

$$y = ln\left(cpi + \sqrt{(cpi^2 + 1)}\right) \quad (3)$$

With this procedure, the sign of CPI is maintained and its values pass from a linear scale at small absolute values to a logarithmic scale at large value. In table 5, we report the findings for this approach. The negative effects of inflation on the willingness to pay tax are confirmed regardless the perceptions of the individuals. However, the significant differences in the slopes are noted only for trust president and economic expectations.

Heterogeneities. In order to further check the robustness and heterogeneities of our previous findings, we split the main sample and estimate the model for individuals with different socioeconomic characteristics. This approach allows us to consider heterogeneities according to employed status (employed/unemployed) and gender (male/female). The results are reported in Table 6 ad Table 7. The marginal effects of inflation on tax compliance are negative both for people

who appreciate or decry government performance, trust or distrust public institutions (executive office) or have good or bad economic expectations. Indeed, the pairwise compare effects are significant only for the outcome related to handling stabilizing prices. Thus, the results perfectly confirm the baseline findings.

Income level classification. Finally, in the last sensitivity analysis, we split our sample into two groups of countries depending on their level of income and development. The categorisation is based on the World Bank classification. The classification is presented in Table 8. We estimate the model for citizen living in lower-income countries and lower-middle income countries. Table 9 presents the findings. The results for people living in lower-income countries and lower-middle countries reflect the global patterns of the findings presented in the previous section. Although, individuals may or may not appreciate government performance, trust or distrust institutions or have a good or a bad economic expectation and it does not change the negative effects of inflation on attitude towards paying tax or fee to the government. Thus, our main results presented previously are still strongly hold.

Concerning the linkage with the existing literature, the finding in this study is broadly consistent with Koomson et al. (2025) on the premise that the compliance by citizens to pay taxes is not limited to their willingness to do so; but well extends to their expectations of how the government can use such taxes to provide public goods for general or collective wellbeing. The findings also support extant studies on reciprocal move in social contract, especially as it relates to government responsibility of using tax income effectively in exchange for citizens to comply with their tax obligations (Bouckaert & Van de Walle, 2001; Schnellenbach, 2010; Yang & Holzer, 2006; Goydke & Koch, 2020; Bereketeab, 2020; Porumbescu et al., 2022; Gugushvili, 2022; Loewe & Albrecht, 2023; Brunner et al., 2024).

5. Concluding Implications and Future Research Directions

5.1 Conclusion

In this paper, we have investigated the effects of inflation on the relationship between people's perception on government performance, confidence in public institutions and their economic expectations and attitude towards paying tax. We have estimated a logistic contextual model with a sample of more than 140 000 respondents living in African countries. The contribution of the study is twofold. Firstly, we have contributed to the existing literature on tax compliance by evaluating the relationship in a macroeconomic context. Secondly, we have contributed empirically by introducing the interaction between a macroeconomic variable (CPI) and people's perception of public policies and tested the differences between slopes. To the best of our knowledge, these two procedures have not been explored in extant literature.

On the one hand, our baseline findings show that individuals who appreciate the current government's actions in creating jobs, fighting corruption, who are confident in the executive office or who have good economic expectations, have a higher probability of accepting to pay a tax or fee to the government. Indeed, the higher the prices are, the lower the probability to pay while favourable episodes of economic cycles reinforce an individual's attitude towards tax payment. On the other hand, the analysis of the interaction term suggests that inflation has negative effects on attitude towards paying tax both for individuals who appreciate or decry public policies, who trust or distrust institutions and who have bad or good economic expectations. Moreover, the pairwise compared effects indicate no significant differences between the slopes in most of the outcomes.

5.2 Theoretical and Practical Implications

The findings theoretically improve insights into contingencies surrounding the fiscal contract theory. As clarified in Section 2, the fiscal contract theory posits that individuals agree to pay taxes because they receive public goods in exchange (Asongu, 2015; Tengs, 2020). In terms of theoretical implications, the findings in this study are relevant both for inductive as well as deductive research. On the deductive theoretical front, the findings confirm the attendant theoretical underpinnings of the fiscal contract especially as it pertains to the results showing that citizens who appreciate the current government's performance in creating jobs, fighting corruption, trust in the executive office and have good economic expectations are more willing to pay a tax or fee. Hence, deductively, the theoretical underpinnings are confirmed. On the inductive front, the findings are also relevant in theory-building because, when the moderating role of inflation is considered and critically engaged in the modelling exercise, individuals' perception on public policies, their confidence in the president or economic expectation do not attenuate or moderate the negative effects of inflation on attitude towards paying taxes. It follows that the fiscal contract theory is not confirmed when inflation is the channel between individual confidence and payment of taxes. Moreover, for the

attendant theory to be confirmed within the remit of inflation, inflation should be kept as low as possible in order to boost confidence in future prices and limit economic uncertainty.

In terms of policy implications, while the study has shown that some dimensions of government effectiveness can improve the willingness to pay taxes to the government, governments of sampled countries should be aware that, inter alia, factors reflecting a negative economic outlook such as inflation can discourage citizens from complying with their tax obligations. Hence, the main policy recommendation is that in order to improve the government's revenue from taxation, policy makers should empirically identify factors that are associated with a negative economic outlook which can discourage citizens from having a favourable perception of government effectiveness, then work towards improving those factors in order to increase citizens' willingness to comply more with tax obligations. Accordingly, social trust in government will increase when citizens are convinced that part of their income (i.e., in the form of tax paid) is optimally allocated to the collective wellbeing of citizens.

5.3 Limitations and Future Research Directions

The main limitation in this study is that the findings cannot be generalised to other continents and regions of the world, unless, subject to empirically validity within the remit of independent studies in corresponding continents and regions to confirm findings in this study. Moreover, sampled countries in this study are still heterogeneous and thus, it is pertinent that future studies engaged country case studies in view of understanding if the findings established in this study are worthwhile from country-specific positions. Furthermore, the present study can be extended by examining other promoting and mitigating factors of the willingness to pay taxes, contingent on government effectiveness.

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Table 1: Data presentation

Variables	Description	# Obs	Mean	Std. Dev	Min	Max
Ref_tax	Refused or would refuse to pay tax or fee to government (1 if no, would never)	147 507	0.717	0.450	0.000	1.000
Pay_tax	People must pay tax (1 if agree or strongly agree)	171 648	0.731	0.443	0.000	1.000
Age	Age of respondent (in log)	177 648	3.309	0.708	0.000	6.906
Urban	1 if urban of peri urban	179 058	0.404	0.491	0.000	1.000
Educ	Education level, 1 (non formal), 2 (primary), 3 (secondary or over)	178 014	2.302	0.778	1.000	3.000
Hand_prices	Handling keeping prices stable, 1 if fairly well or very well	173 384	0.231	0.422	0.000	1.000
Hand_job	Handling creating jobs, 1 if fairly well or very well	172 798	0.262	0.440	0.000	1.000
Hand_corrupt	Handling fighting corruption, 1 if fairly well or very well	167 398	0.364	0.481	0.000	1.000
Hand_ineq	Handling narrowing income gaps, 1 if fairly well or very well	171 639	0.216	0.411	0.000	1.000
Trust_presi	Trust president, 1 if somewhat or a lot and 0 otherwise	173 206	0.585	0.493	0.000	1.000
Expectation	Expectation of economic conditions, 1 if better or much better	159 280	0.584	0.493	0.000	1.000
CPI	Consumer Price Index (in log)	179 058	7.326	6.063	-1.310	37.800
Growth	GDP growth (in %)	179 058	4.203	3.078	-8.020	14.070
GDPpc	GDP (in log)	179 058	7.307	0.897	5.475	9.289

Sources : authors

Table 2: Tax compliance (contextual model)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Individual characteristics										
Age(ln)	-0.192***	-0.167***	-0.190***	-0.189***	-0.188***	-0.178***	-0.203***	-0.210***	-0.214***	-0.212***
	(0.032)	(0.032)	(0.032)	(0.032)	(0.032)	(0.032)	(0.033)	(0.032)	(0.032)	(0.032)
Age2(ln)	0.060***	0.053***	0.060***	0.059***	0.059***	0.057***	0.063***	0.062***	0.063***	0.063***
	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.004)	(0.006)	(0.006)	(0.006)
Urban	0.028**	0.039***	0.028**	0.026**	0.023*	0.030**	0.036***	0.027**	0.028**	0.030**
	(0.013)	(0.013)	(0.013)	(0.013)	(0.009)	(0.013)	(0.014)	(0.013)	(0.013)	(0.013)
Educ	0.061*	0.073	0.065***	0.064***	0.066***	0.073***	0.059***	0.064***	0.063***	0.064***
	(0.009)	(0.009)	(0.009)	(0.009)	(0.009)	(0.009)	(0.010)	(0.009)	(0.009)	(0.009)
Trust_presi		0.198***								
		(0.012)								
Hand_job			0.036***							
			(0.014)							
Hand_prices				0.013						
				(0.014)						
Hand_ineq					-0.014					
					(0.015)					
Hand_corrupt						0.074***				
						(0.013)				
Expectation							0.249***			
							(0.013)			
Macroeconomic indicators										
CPI								-0.049***	-0.036***	-0.047***
								(0.003)	(0.003)	(0.003)
GDPpc (ln)									0.748***	
									(0.090)	
Growth (%)										0.007***
										(0.003)
Diagnostics										
Var (_cons)	0.144***	0.143***	0.142***	0.142***	0.142***	0.142***	0.146***	0.164***	0.615***	0.163***
	(0.034)	(0.034)	(0.033)	(0.034)	(0.033)	(0.033)	(0.034)	(0.040)	(0.181)	(0.040)
ICC	0.042	0.042	0.041	0.041	0.041	0.041	0.042	0.047	0.157	0.047

Log likelihood	-84958.861	-82809.334	-82481.586	-82559.418	-88122.787	-80748.182	-76254.893	-84785.131	-84740.507	-84781.426
Wald Chi2	508.07***	728.33***	484.24***	478.94***	464.34***	469.67***	809.73***	844.58***	909.68***	850.84***
LR test vs logit model	3158.60***	3091.28***	3052.56***	3064.38***	3046.66***	2976.99***	2954.86***	3068.69***	3130.80***	3071.80***
# Obs	145 878	142 103	141 595	141 854	140 849	138 214	131 237	145 878	145 878	145 878
Round FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Notes: significance level: ***p<0.01, **p<0.05, **p<0.10, Robust standard errors are in parentheses

Table 3: Mechanisms (role of CPI)

		Trust_presi	Hand_job	Hand_prices	Hand_ineq	Hand_corrupt	Expectation
Marginal effects							
$P(Tax_{ijt} = 1/X_{ijt} \neq \text{CPI})$	No	-0.009*** (0.000)	-0.009*** (0.000)	-0.009*** (0.000)	-0.010*** (0.000)	-0.010*** (0.000)	-0.009*** (0.000)
	Yes	-0.009*** (0.000)	-0.009*** (0.000)	-0.011*** (0.000)	-0.010*** (0.000)	-0.009*** (0.000)	-0.008*** (0.000)
PW compare effects	Yes v No	-0.000 (0.000)	-0.000 (0.000)	-0.002*** (0.000)	0.000 (0.000)	0.000 (0.002)	0.000 (0.000)
Diagnostics							
Log likelihood		-82632.378	-82286.101	-82353.315	-81920.548	-80555.15	-76118.741
Wald Chi2		1067.59***	857.40***	874.36***	850.15***	837.50***	1069.25***
LR test vs Logit		3024.96***	3034.78***	3027.78***	3038.59***	2929.80***	2818.21
≠ Obs		142 103	141 595	141 854	140 849	138 214	131 237

Notes : $X_{ijt} \neq \text{CPI}$ represents the interaction between CPI and one of these variables representing perceptions: trust president, handling to reduce income gap, to create jobs, to stabilize prices, corruption level compared over the past year and round fixed effects. Individual-level control characteristics are added in all equations: age (ln) and its square, residential area (reference: urban) and education level. Significance level: ***p<0.01, **p<0.05, **p<0.10, standard errors are in parentheses. PW compare effects represents the comparison of the average marginal effects.

Table 4: Robustness check (Dependent variable: People must pay tax)

		Trust_presi	Hand_job	Hand_prices	Hand_ineq	Hand_corrupt	Expectation
				Marginal effects			
$P(Tax_{ijt} = 1/X_{ijt} \neq \text{CPI})$	No	-0.005* (0.003)	-0.004 (0.003)	-0.000 (0.003)	-0.004 (0.002)	-0.005* (0.003)	-0.008*** (0.003)
	Yes	-0.004* (0.002)	-0.010*** (0.003)	-0.013*** (0.003)	-0.013*** (0.003)	-0.005** (0.003)	-0.001 (0.003)
PW compare effects	Yes v No	0.000 (0.000)	-0.006*** (0.002)	-0.012*** (0.002)	-0.009** (0.002)	-0.000 (0.002)	0.007*** (0.002)
				Diagnostics			
Log likelihood		-92913.691	-93025.669	-93406.247	-92509.903	-90321.833	-85490.393
Wald Chi2		1948.61***	1282.93***	1219.79***	1221.76***	1451.76***	1409.45***
LR test vs Logit		4935.36***	4968.30***	4936.71***	4933.36***	4684.00***	4376.07***
≠ Obs		165 960	165 858	166 428	164 920	161 556	152 875

Notes: $X_{ijt} \neq \text{CPI}$ represents the interaction between CPI and one of these variables representing perceptions: trust president, handling to reduce income gap, to create jobs, to stabilize prices, corruption level compared over the past year and round fixed effects. Indivi dual-level control characteristics are added in all equations: age (ln) and its square, residential area (reference: urban) and education level. Significance level: ***p<0.01, **p<0.05, **p<0.10, standard errors are in parentheses. PW compare effects represents the comparison of the average marginal effects.

Table 5: Robustness checks (Log transformation of CPI to handle outliers)

		Trust_presi	Hand_job	Hand_prices	Hand_ineq	Hand_corrupt	Expectation
Marginal effects							
$P(Tax_{ijt} = 1/X_{ijt} \neq \text{CPI})$	No	-0.048*** (0.003)	-0.047*** (0.003)	-0.043*** (0.003)	-0.048*** (0.003)	-0.048*** (0.003)	-0.050*** (0.003)
	Yes	-0.052*** (0.003)	-0.054*** (0.004)	-0.059*** (0.003)	-0.054*** (0.003)	-0.054*** (0.003)	-0.045*** (0.003)
PW compare effects	Yes v No	-0.004 (0.002)	-0.007*** (0.003)	-0.016*** (0.003)	-0.006** (0.003)	-0.006** (0.002)	0.004 (0.003)
Diagnostics							
Log likelihood		-82614.004	-82292.239	-82357.394	-81926.573	-80555.445	-76098.782
Wald Chi2		1102.10***	850.25***	868.84***	843.97***	841.25***	1109.72***
LR test vs Logit		2859.18***	2820.23***	2814.27***	2830.77***	2721.61***	2689.50***
≠ Obs		142 103	141 595	141 854	140 849	138 214	131 237

Notes: $X_{ijt} \neq \text{CPI}$ represents the interaction between CPI and one of these variables representing perceptions: trust president, handling to reduce income gap, to create jobs, to stabilize prices, corruption level compared over the past year and round fixed effects. Individual-level control characteristics are added in all equations: age (ln) and its square, residential area (reference: urban) and education level. Significance level: ***p<0.01, **p<0.05, **<0.10, standard errors are in parentheses. PW compare effects represents the comparison of the average marginal effects.

Table 6: Heterogeneity (Employed/Unemployed)

		Trust_presi	Hand_job	Hand_prices	Hand_ineq	Hand_corrupt	Expectation
				Employed			
				Marginal effects			
$P(Tax_{ijt} = 1/X_{ijt} \neq \text{CPI})$	No	-0.009*** (0.001)	-0.010*** (0.001)	-0.009*** (0.001)	-0.010*** (0.001)	-0.010*** (0.001)	-0.009*** (0.001)
	Yes	-0.011*** (0.001)	-0.011*** (0.001)	-0.013*** (0.001)	-0.011*** (0.001)	-0.011*** (0.001)	-0.008*** (0.001)
PW compare effects	Yes v No	-0.001* (0.000)	-0.000*** (0.000)	-0.004*** (0.000)	-0.001 (0.000)	-0.001** (0.000)	0.001 (0.001)
				Diagnostics			
Wald Chi2		389.98***	269.88***	276.07***	258.04***	264.38***	397.27***
LR test vs Logit		894.90***	958.41***	979.18***	972.90***	918.36***	899.41***
≠ Obs		51 568	51 417	51 422	51 129	50 515	47 500
				Unemployed			
				Marginal effects			
$P(Tax_{ijt} = 1/X_{ijt} \neq \text{CPI})$	No	-0.008*** (0.001)	-0.008*** (0.001)	-0.007*** (0.001)	-0.008*** (0.001)	-0.008*** (0.001)	-0.007*** (0.001)
	Yes	-0.007*** (0.001)	-0.008*** (0.001)	-0.010*** (0.001)	-0.008*** (0.001)	-0.007*** (0.001)	-0.007*** (0.001)
PW compare effects	Yes v No	0.000 (0.000)	0.000 (0.000)	-0.002*** (0.000)	0.000 (0.002)	0.001** (0.000)	0.000 (0.000)
				Diagnostics			
Wald Chi2		693.80***	591.52***	599.25***	590.18***	573.09***	682.21***
LR test vs Logit		2186.77***	2217.71***	2189.24***	2204.43***	2142.58***	2030.01***
≠ Obs		90 535	90 178	90 432	89 720	87 699	83 737

Notes: $X_{ijt} \neq \text{CPI}$ represents the interaction between CPI and one of these variables representing perceptions: trust president, handling to reduce income gap, to create jobs, to stabilize prices, corruption level compared over the past year and round fixed effects. Individual-level control characteristics are added in all equations: age (ln) and its square, residential area (reference: urban) and education level. Significance level: ***p<0.01, **p<0.05, **p<0.10, standard errors are in parentheses. PW compare effects represents the comparison of the average marginal effects.

Table 7: Heterogeneity (Male/Female)

		Trust_presi	Hand_job	Hand_prices	Hand_ineq	Hand_corrupt	Expectation
Male							
Marginal effects							
$P(Tax_{ijt} = 1/X_{ijt} \neq \text{CPI})$	No	-0.010*** (0.001)	-0.010*** (0.001)	-0.010*** (0.001)	-0.011*** (0.001)	-0.011*** (0.001)	-0.009*** (0.001)
	Yes	-0.010*** (0.001)	-0.010*** (0.001)	-0.012*** (0.001)	-0.010*** (0.001)	-0.010*** (0.001)	-0.009*** (0.001)
PW compare effects	Yes v No	-0.000 (0.000)	0.000 (0.000)	-0.002*** (0.000)	0.000 (0.001)	0.000 (0.000)	0.000 (0.001)
Diagnostics							
Wald Chi2		628.00***	515.79***	517.44***	507.20***	528.87***	603.63***
LR test vs Logit		1451.64***	1451.09***	1451.18***	1450.89***	1418.51***	1340.37***
≠ Obs		71 551	71 305	71 314	70 906	70 092	66 541
Female							
Marginal effects							
$P(Tax_{ijt} = 1/X_{ijt} \neq \text{CPI})$	No	-0.007*** (0.001)	-0.008*** (0.001)	-0.007*** (0.001)	-0.008*** (0.001)	-0.008*** (0.001)	-0.007*** (0.001)
	Yes	-0.008*** (0.001)	-0.008*** (0.001)	-0.010*** (0.001)	-0.008*** (0.001)	-0.008*** (0.001)	-0.007*** (0.001)
PW compare effects	Yes v No	-0.000 (0.000)	-0.000 (0.001)	-0.003*** (0.001)	-0.000 (0.001)	0.000 (0.000)	0.000 (0.000)
Diagnostics							
Wald Chi2		465.99***	369.47***	384.44***	366.33***	340.79***	483.14***
LR test vs Logit		1553.62***	1566.25***	1560.17***	1569.92***	1489.69***	1452.35***
≠ Obs		70 552	70 290	70 540	69 943	68 122	64 696

Notes: $X_{ijt} \neq \text{CPI}$ represents the interaction between CPI and one of these variables representing perceptions: trust president, handling to reduce income gap, to create jobs, to stabilize prices, corruption level compared over the past year and round fixed effects. Individual-level control characteristics are added in all equations: age (ln) and its square, residential area (reference: urban) and education level. Significance level: ***p<0.01, **p<0.05, **p<0.10, standard errors are in parentheses. PW compare effects represents the comparison of the average marginal effects.

Tableau 8: country by income level (World Bank's classification)

Low income	Burkina Faso, Liberia, Malawi, Mali, Mozambique, Uganda, Zambia, Sierra Leone, Niger, Togo, Guinea, Sudan, The Gambia, Madagascar, Burundi
Lower-middle income	Benin, Cap Vert, Ghana, Kenya, Lesotho, Nigeria, Senegal, Tanzania, Zimbabwe, Cameroon, Cote d'Ivoire, Morrocco, Tuniisa, Swaziland, Algeria, Egypt, Sao Tome et Principe,
Upper-middle income	Botswana, Namibia, South Africa, Mauritius, Gabon

Source: elaborated by authors based on the World Banks' classification (https://datatopics.worldbank.org/world-development-indicators/the-world-by-income-and-region.html).

Table 9: Heterogeneity (World Bank's income level classification)

		Trust_presi	Hand_job	Hand_prices	Hand_ineq	Hand_corrupt	Expectation
Low income							
Marginal effects							
$P(Tax_{ijt} = 1/X_{ijt} \neq \text{CPI})$	No	-0.007*** (0.001)	-0.008*** (0.001)	-0.007*** (0.001)	-0.008*** (0.001)	-0.008*** (0.001)	-0.006*** (0.001)
	Yes	-0.006*** (0.001)	-0.006*** (0.001)	-0.007*** (0.001)	-0.005*** (0.001)	-0.006*** (0.001)	-0.007*** (0.001)
PW compare effects	Yes v No	0.001*** (0.000)	0.002*** (0.000)	0.002 (0.000)	0.004*** (0.001)	0.001*** (0.000)	-0.000 (0.000)
Diagnostics							
Wald Chi2		440.02***	366.12***	353.30***	394.37***	367.34***	391.95***
LR test vs Logit		1483.79***	1492.47***	1491.87***	1485.13***	1441.22***	1302.24***
≠ Obs		55 232	53 541	53 966	53 518	52 057	50 021
Lower-Upper-middle income							
Marginal effects							
$P(Tax_{ijt} = 1/X_{ijt} \neq \text{CPI})$	No	-0.013*** (0.001)	-0.014*** (0.001)	-0.013*** (0.001)	-0.014*** (0.001)	-0.015*** (0.001)	-0.017*** (0.001)
	Yes	-0.016*** (0.001)	-0.018*** (0.001)	-0.021*** (0.001)	-0.021*** (0.001)	-0.016*** (0.001)	-0.014*** (0.001)
PW compare effects	Yes v No	-0.003*** (0.001)	-0.004*** (0.001)	-0.008*** (0.001)	-0.006*** (0.001)	0.001* (0.001)	0.002*** (0.001)
Diagnostics							
Wald Chi2		770.62***	635.87***	686.86***	656.06***	591.04***	787.45***
LR test vs Logit		1540.36***	1519.90***	1535.79***	1541.74***	1452.08***	1421.33***
≠ Obs		86 871	88 054	87 888	87 331	86 157	81 216

Notes : $X_{ijt} \neq \text{CPI}$ represents the interaction between CPI and one of these variables representing perceptions: trust president, handling to reduce income gap, to create jobs, to stabilize prices, corruption level compared over the past year and round fixed effects. Individual-level control characteristics are added in all equations: age (ln) and its square, residential area (reference: urban) and education level. Significance level: ***p<0.01, **p<0.05, **p<0.10, standard errors are in parentheses. PW compare effects represents the comparison of the average marginal effects.