

Can Policy Design Increase Support for Local Taxes?
Experimental Evidence from Property Taxation in Mexican Municipalities

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I. Introduction

As urban populations expand and demands for services increase, local governments in Latin America face mounting pressures to meet the basic service and infrastructure needs of their residents.¹ Budget constraints that hinder infrastructure investment in the region exacerbate these challenges (Fay et al. 2017). Many local governments in the region depend on transfers from the central government and face substantial limitations in collecting local revenue. Reliance on central government transfers, many of which are earmarked, restricts the autonomy of local governments to decide how they spend their revenue and ensure that expenditures best reflect the needs of their population (Jibao and Prichard 2015). Property taxes, the most important own source of revenue for local governments, enable municipalities to leverage land and property wealth to fund urban services and infrastructure.

Adequate property tax collection requires coordination among different actors, each with distinct incentives and motivations. Politicians want to be reelected, bureaucrats want to ensure revenue is efficiently and effectively collected to carry out the necessary government actions, and property owners want to receive better public services without increasing their tax burden (Steinmo 1993). Concerns of property owner opposition and the political costs of increasing property tax collection make local politicians reluctant to support updates to cadasters and property tax rates (Unda 2024, Christensen and Garfias 2021). In some cases, local politicians approach property tax increases as a partisan issue and vote on increases based on party affiliation.² Additionally, they may support and promote citizen protests of property tax increases as seen in the cases of several municipalities in Nuevo León in which opposition parties coordinated and supported protests (Chio 2021).

Local governments in Mexico face a challenge: local residents demand improved service provision but resist the taxes that are necessary to fund them. At the same time, property owners do not believe that their municipal government will indeed use property tax revenues effectively, and for the objectives of improving municipal service provision, in other words, there is low credible commitment. Credible commitment can be established through two paths, the first is by establishing trust in government performance and its capacity to carry out the actions of government. The second is by the use of institutional and administrative strategies that constrain government action and guarantee that it effectively fulfills its commitments (North and Weingast (1989).

¹ Only 34 percent of Latin American residents reported being satisfied with their municipally provided services (LAPOP 2023).

² This exemplified in a speech in the Zapopan city council meeting from council member and previous mayor of the municipality Tlajomulco de Zúñiga, Alberto Uribe Camacho: “As part of the opposition party and from Morena, I have to vote against (a property tax increase), but...I also have the soul of a public servant that understands that it is fundamental to address the (cadaster) value tables, it is not possible to have three years without changing them...”. August 30, 2022.}

I examine these concerns in the context of Mexico, a middle-income country whose cities face many of the same issues of cities in Latin America, such as high dependence on federal government transfers, populations with liquidity constraints, high levels of real and perceived corruption, and low satisfaction with municipally provided services and infrastructure. Mexico is a particularly insightful case study because it is one of the countries with the lowest rates of taxes from property by GDP among OECD countries and the Latin American region. However, all countries in the region are behind many of their European and North American counterparts, making the presented findings applicable beyond large urban municipalities in Mexico (Annex A, Figure A.1).

In this paper, I posit that property owners will support property tax policy designs that enhance the accountability of government and thus enable structural conditions that establish credible commitment. I hypothesize that I will observe stronger support for policy that increases the accountability of government from property owners who have low certainty that tax payments will result in improvements and who distrust how government manages funds. I use an experimental conjoint study of over 2,000 property owners in 35 urban municipalities in Mexico to study multidimensional preferences of property taxes.

I find that property owners more strongly support property tax policy that increases the accountability of government, particularly in terms of how it administers and spends property tax revenue. Findings from this study also demonstrate that individuals with low levels of trust in government capacity are less likely to support property tax increases in general and more likely to support property tax policies that redirect a portion of tax collected in their neighborhood back to their neighborhood. Finally, I identify that individuals most concerned with government accountability are also the most willing to pay a higher property tax increase when active transparency measures are in place. Urban scholars and policy makers should consider how local governments can adopt strategies that increase their credible commitment without compromising the potential of local taxes to redistribute property wealth. This case illustrates how local taxation is embedded in broader challenges of urban governance.

This paper is organized as follows. In the first three sections, I review the relevant scholarship and present my analytical framework. Then I contextualize property taxes in Mexican municipalities and justify my case selection. In the fifth section, I present the empirical strategy for analyzing the main and heterogeneous effects of the conjoint survey. I show the results and offer a discussion of their implications in the fifth section. The final section concludes.

II. Perceptions of Property Taxes

Taxation is a fundamental part of the relationship between citizens and the state and often elicits strong opinions from taxpayers. One of the taxes that prompt the strongest opinions from taxpayers is property taxes. The opposition to property taxes has been confirmed by previous survey-based research in the United

States (Brunner, Ross, and Simonsen 2015). Carbal and Hoxby (2012) find that the U.S. population consistently classifies property taxes as the most disliked tax with income tax being a distant second. Naturally, property owners express the strongest opposition to this tax (Brunner et al. 2015).

Opposition to property taxes partly stems from the fact that they are highly visible taxes across many dimensions (Slack 2001). Firstly, they are a direct tax that is actively paid annually, which makes the amount owed highly salient to taxpayers. Secondly, this tax is applied over a very publicly visible asset, real property. Furthermore, property tax revenue funds public services and infrastructure that are tangible to taxpayers, making it more evident whether funds are spent properly or not. The local nature of property taxes further enhances their visibility since property owners can continually evaluate how the government uses their tax payments, a weaker consideration with federal taxes. Because of the payment-benefit connection, individuals may feel that an increase in their property assessments does not coincide with an increase in their property value, nor the reality of services and infrastructure provided. Finally, because property tax bases do not grow organically and base values require deliberate updates from government officials, changes may be more noticeable to taxpayers (Bird and Slack 2004).

While perceptions of property taxes is an understudied topic, studies on the benefit view of the property tax offer some guidance on how property owners perceive this tax. The benefit view of the property tax establishes that property owners pay their property taxes with the expectation that the funds will be used toward service and infrastructure improvements that will either benefit them directly or indirectly by uplifting their property values (Fischel 2005; Oates 1969). This perspective emphasizes the local character of the tax and frames property taxes as a direct payment for benefits received. While this is useful for understanding property owner motivations, this scholarship has primarily emerged from the U.S. context, which limits its usefulness in other settings. In particular, U.S. based scholarship largely overlooks concerns about how the expectations of benefits could influence perceptions of property taxes. This point is particularly relevant in low-trust contexts where residents may have significant doubts about the appropriate use of funds by their local government. Additionally, U.S. based scholarship on property taxes largely assumes that all taxpayers act in self-interested ways and always seek the most direct benefits. However, motivations for tax payments may be more socially and legally focused in contexts with weak property regimes.

Credible Commitment

The expectation, but absence of guarantee, of government benefits, lies at heart of the tension of taxation. Paradoxically, governments are incentivized to collect as much revenue as possible while simultaneously minimizing the costs of providing benefits and applying enforcement (Levi 1988, Irigoien and Grafe 2013). Meanwhile, taxpayers are incentivized to free ride on the goods and services that they receive from the government if they can avoid punishment for non-payment. It is therefore most convenient for governments

to provide goods and services to motivate compliance, rather than to punish every single non-complier (Levi 1988). However, the ability to uphold this equilibrium largely depends on ensuring that taxpayers believe that government will not defect. In this case, this means that taxpayers need to credibly believe that payments that they make will indeed be used for benefits and not be diverted (Timmons 2010). Credible commitment is thus the expectation that government will not act arbitrarily, but that it will take actions that are consistent with its established promises.

In their seminal work on credible commitment, North and Weingast (1989) contend that the state can establish credible commitments in two ways. The first is by demonstrating “responsible behavior”, which refers to a government’s demonstrated ability to carry out its promises. This component of establishing credible commitment refers to the expectations of what government is going to do based on how individuals perceive government and its past performance. Because credible commitment depends on the belief of government upholding its promises, it is usually stronger in contexts where there is a high level of trust in government and low levels of government corruption. Perceptions of credible commitment are therefore strongly influenced by people’s experience of government and their predictions of future action (Levi, Sacks, and Tyler 2009). In democratic systems political factors, such as party alignment, can also influence credible commitment. For example, left-wing governments can more easily collect taxes from low-income groups because members of this group are more likely to believe that government will use funds in ways that will benefit them (Timmons 2010). This reveals that the willingness to pay taxes is not only determined by the liquidity of taxpayers, but also by taxpayers' expectations of how funds will be spent and the concomitant benefits.

The second feature they identify as contributing to establishing credible commitment is institutional strategies that constrain a government’s ability to arbitrarily apply power. This second feature is more about the use of strategies that limit the government’s ability to diverge from its promises. For example, North and Weingast (1989) contend that parliamentary powers to veto and monitor expenditures, a politically independent judiciary, and the earmarking of funds constrained the crown’s ability to take arbitrary actions.³ These structural constraints limited the king’s discretion which enhanced the credibility that the state would repay its debts. This, consequently, increased the state’s borrowing capacities and significantly reduced interest rates. In this case, the establishment of proper institutions that increased accountability of the state were essential for establishing credible commitment of government and facilitating its access to public financing.

³ Parliamentary veto over expenditures, combined with the right to monitor how the funds were spent, placed important constraints over the Crown. Politically independent judiciary greatly expanded the government's ability credibly to promise to honor its agreements. By earmarking taxes beforehand, parliamentary interests limited the king's discretion each year over whether to pay bondholders their interest

Institutional arrangements promote credible commitment by increasing the costs of breaking agreements and limiting the ability of parties to do so. These institutional arrangements are also fundamental for facilitating collective action since they impose a direct cost on defection. Olivier and Schlager (2022) find that factors like active reviews, the presence of monitoring mechanisms, and explicit consequences for breaking agreements ensure that different levels of government cooperate for common goals even when it would be more beneficial for each individual level of government to free-ride. Similarly, in regard to taxation, since the state is incentivized to collect the most money possible while spending the least, institutional arrangements can motivate taxpayer buy-in, resulting in higher willingness to pay (Scholz and Lubell 1998).

At the urban scale, credible commitment is useful for analyzing issues or policies whose implementation require citizen support. For example, Manville and King (2013) argue that the challenge of garnering public support for congestion charges lies in the public's incredulity that government will use the collected funds in ways that are consistent with its promises. Unlike congestion charges, property taxes are typically not earmarked for specific uses. Yet, individuals expect that the revenue generated from this tax will be used to support the provision of public goods in their municipality and ultimately enhance their property values. Low credible commitment that the government will use this revenue transparently and effectively can reduce public support for this tax.

This study examines whether property owners support property tax policy designs that enhance government accountability thereby establishing credible commitment. I further explore how trust in government shapes this relationship by analyzing whether individuals with lower levels of trust in government are more likely to support policy designs that strengthen government accountability. I center this analysis on property taxes, a uniquely local tax that is multidimensional and highly visible to taxpayers.

II. Policy design for accountability

When taxpayers do not believe that the government is sufficiently constrained to adhere to its promises and not act arbitrarily, they may support tax policy designs that increase the accountability of government and constrain it from taking arbitrary actions.

I define accountable property tax policy design by breaking down the property tax process into four parts.⁴ The four parts of the process are: tax calculation, management of funds, use of funds, and enforcement. Increasing credible commitment through property tax design refers to increasing the legibility of property tax design across each of these four dimensions. Specifically, this means (1) increasing the simplicity in how government calculates taxes and who pays, (2) promoting transparency in the way that government manages

⁴ This classification emerged from focus groups with property owners in Mexico and the multidimensional ways in which they broke down the property tax process.

funds, (3) making the use of funds more tangible and direct, and (4) reducing government discretion in how it enforces compliance. I present these factors in Table 1.

Table 1: Accountability in Property Tax Process

Tax Process	Accountability Characteristic	Reform to Increase Accountability
How is the tax calculated and who pays?	Simple	Reduced complexity in tax calculation formulas and reduced government discretion in setting formulas.
How are funds administered?	Transparent	Increased transparency in how government spends tax revenue.
How are funds used?	Tangible	Tax revenue is linked to specific goods and benefits and specific locations.
How is tax collection enforced?	Rule-based	Institutional constraints limit government's ability to arbitrarily apply power.

Importantly, tax designs are complex, and policies that increase the accountability of government may not always result in the most efficient and equitable taxes (IFS and Mirrlees 2018). In this study, I focus specifically on identifying citizen preferences of property taxes, which may admittedly be at odds with efficient or equitable tax design. At the conclusion of this paper, I discuss trade-offs that government may have to make in negotiating how to promote property tax support while ensuring that the tax can benefit the largest number of people.

How is the tax calculated and who pays?

Property taxes are unique with respect to other taxes in that the tax base requires a continuous reassessment by the government. Additionally, many local governments, particularly in Latin America, employ special discounts and subsidies to reduce the tax payments of specific populations and also apply progressive tax rates (Echavarria and Monkkonen 2025). Complexity in a tax system can be important for ensuring that it satisfies the different needs of the population and that it is equitable, e.g., using progressive rates (Partlow 2013). However, complexity can also prompt confusion around taxes, contributing to non-compliance and the inequitable application of the tax (Krause 2000). Simple tax systems are typically preferable to complex ones that may increase discretion because they are easier for taxpayers to understand and are administratively straightforward (IFS and Mirrlees, 2018). Furthermore, when trust in government is low, individuals favor policies that simplify the calculation process and minimize exceptions (Scholz 1998).

How is use of funds made transparent?

Transparency in the administration of tax revenue enhances government legitimacy in the collection of public funds, increasing government accountability and consequently motivating tax morale and compliance (Capasso et al. 2021). Research on the impact of transparency strategies in low-trust contexts provides substantial support for this view. Flores-Macías (2018) finds that implementing active oversight strategies raises support for a national tax in Mexico by seven percentage points. He demonstrates that passive oversight strategies, such as audit reports and public expenditure databases, are often deemed inadequate by taxpayers who distrust the government. These taxpayers tend to favor more active citizen involvement in oversight processes through strategies such as a citizen comptroller program. Furthermore, preferences of transparency measures are strongly influenced by individual perceptions of government. Hsu (2024) evidences that individuals that are more distrustful of government are also more responsive to the use of fiscal transparency measures. This is consistent with other findings suggesting that the presence of government corruption influences citizen demand for participatory budgeting strategies, which makes spending more democratic and transparent (Timmons and Garfias 2015). Importantly, this scholarship emphasizes the relational character of taxation and introduces nuance to factors that influence the preferences of taxpayers.

How and where are funds spent?

While less common and more administratively challenging, earmarking of tax funds increases support for a tax by strengthening the perception of the link between tax payment and use of funds (Flores-Macías 2018). Focusing directly on political behavior, rather than preferences, Martin et al. (2019) find that California voters were more likely to support tax referendums that proposed earmarking revenues. Specifically, support for earmarking was accentuated when funds were directed towards infrastructure and emergency services.

In the case of property taxation, increased visibility of where funds are used could also mean spending in an ultra-local way, thus strengthening the connection between payment and benefit. Property tax scholarship has highlighted that property owners in the United States predominantly view this tax as a benefit tax, which means that there is an expectation among property owners that their taxes will return to them through services or the capitalization of property values (Fischel 2009). However, local tax scholarship has not considered whether property owners have a stronger preference for property taxes that use funds in ways that directly benefit their neighborhood over those that may benefit the city as a whole.

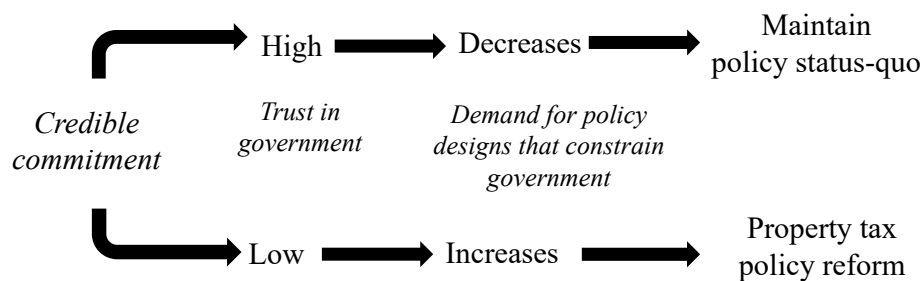
How is the tax enforced?

Because it is too costly for governments to actively enforce compliance from all taxpayers, governments must rely on taxpayers engaging in semi-voluntary compliance (Levi 1988). At the same time, however, in contexts of low trust and particularly where there are weak property rights, individuals are weary of a government that uses enforcement strategies that rely on demonstrating its force and power (Wahl, Kastlunger, and Kirchler 2010). Feld and Frey (2002) show that in democratic societies taxpayers are more likely to voluntarily comply

without the need to have harsh enforcement measures. In contexts of trust and stable governance, taxpayers expect to be treated respectfully because they are engaged in an unspoken psychological contract with the taxing authorities (ibid). When this psychological contract is breached, individuals demand tax policy that makes it more difficult for the government to arbitrarily apply power.

In the following diagram (Figure 1), I sketch out the paths for establishing credible commitment. The first is through trust in government, which typically involves past behavior and perceptions of government's ability to comply with its promises. The second, which implies higher transaction costs, is through structural designs that increase the accountability of government. This diagram demonstrates that when there is low trust in government, demand for property tax reform will increase.

Figure 1: Paths for establishing credible commitment



I will test this framework through a conjoint survey with six dimensions related to the four categories of the property tax process. I present these four parts in Table 2 along with the corresponding conjoint survey category and the choices presented to participants.

Table 2: Policy Designs for Accountability and Experimental Categories

Part of Tax Process	Impact on Tax Policy	Conjoint Category	Choices
Calculation	Reduced complexity in tax calculation and reduced government discretion	Who pays and how much?	Flat increase for everyone vs. differential increase for some groups based on property value
		How is the base calculated?	Current system vs. new calculation based on real values
Administration of tax	Increased transparency in how government manages and spends funds	Will administration of funds be transparent and how?	Status quo vs. implementation of transparency strategy
Use of funds	Revenue is linked to specific goods and benefits and specific areas	Where are funds used?	General expenditures vs. specific use of funds
Enforcement	Constraints in government's ability to arbitrarily apply power	How are funds used?	Municipal level vs. localized benefit
		How will government promote compliance?	Harsh government punishment vs. incentives

I test the following hypotheses:

H1: Property owners will prefer policies that increase the accountability of property tax policy, including how the tax is calculated, administered, spent, and enforced.

H2: Property owners who have lower levels of trust in government will more strongly oppose property tax increases.

H3: Property owners who have lower levels of trust in government will be more likely to support property tax policy that increases the accountability of government, thus establishing credible commitment through policy design.

IV. Institutional and Fiscal Context

Mexican history is dotted with reforms that have attempted to increase the autonomy of municipal governments, symbolically or tangibly. The most significant of these were the 1982 reforms to Article 115 of the Constitution. These changes gave municipalities new responsibilities in land use planning, urban service and infrastructure provision, and most significantly, they granted municipalities the power to collect all property related taxes. Since the establishment of these changes the federal government has offered different

levels of technical support to local governments to promote cadaster modernization efforts, and even reformed redistribution formulas for federal government participations in order to incentivize local property tax collection (Unda 2017).

Despite their increased powers, municipalities continue to depend on the federal government for their financial needs. For example, in 2024 about 65% of revenue for local governments of over 100,000 residents came from earmarked and unearmarked federal government transfers (25% and 40% respectively). I include the distribution of local revenue for these municipalities in Annex A (Figure A.2). Dependence on federal government transfers can reduce regional inequalities but can also increase the vulnerability of local governments and limit their spending autonomy and ability to provide services and infrastructure that best reflect the needs of their populations (Jibao and Prichard 2015). In fact, Mexican municipalities that receive more earmarked transfers invest more in public works, suggesting that local governments largely rely on non-local sources of revenue to fund local infrastructure.

Scholars have pointed to multiple potential explanations for why property tax collection by Mexican municipalities has remained low. For example, Canaivre-Bacarreza and Zuniga Espinoza (2015) point to 'fiscal sluggishness' of local governments fueled by the guarantee of federal government transfers. This vision contends that in the face of the potential resistance and high political costs of increasing property taxes, local governments officials have limited incentives for increasing tax collection or reforming tax collection practices (Weingast 2009). In a longitudinal analysis, Unda (2021) finds that low property tax collection is influenced not only by dependence on federal governments, but also by factors such as party affiliation, electoral competition, and socio-economic variables. She also finds that the weak administrative capacity of municipal cadasters contributes to low collection. Her study is important because it begins to point to how political factors, such as party affiliation, may influence support for property taxation.

Concerns about the political cost of property tax increases may limit the willingness of local politicians to approve assessment updates. Rather than keep assessment bases up to date, many local governments have focused their efforts on motivating compliance by employing discounts for early payment. Municipalities offer discounts that range from four to forty percent for early payments made from January to April (Echavarria and Monkkonen 2025). These discounts have the benefit of ensuring that public coffers are full early in the year but also have the drawback of limiting potential total revenue collected by the municipality. Many local governments also hold raffles, which allow property owners to win prizes such as cars, motorcycles, or electric appliances for complying with their property tax payments. These strategies have focused on enticing property owners to pay their taxes based on the possibility of receiving individual rewards, rather than the promises of improved collective services and infrastructure. While these strategies may be important for motivating some people to pay, they may not be enticing enough for individuals with the most valuable

properties. Additionally, the reliance on raffles to motivate compliance makes payment appear optional to taxpayers and sidesteps what many property owners consider the core objective of the tax, which is to improve conditions in their municipality and provide essential services. This could undermine the fiscal relationship between citizens and the state and minimize the collective foundations of taxation.

V. Empirical Strategy

My first approach to this study was to conduct focus groups with property owners in four different municipalities: Merida, Guadalajara, Zapopan, and Tlajomulco de Zúñiga. Focus groups, which included 19 property owners, were fundamental for understanding how property owners perceive property taxes and their main concerns about this tax. Focus groups provide evidence that individuals perceived property taxes in a multi-dimensional way. Not simply in terms of the amount of tax they pay, but also in regards to of how their tax is calculated, how the tax is administered, how the tax is enforced, and how funds are used.

I expanded on these initial findings through a choice-based conjoint survey experiment of property tax design. The conjoint design facilitates this study of the multi-dimensional character of property taxes and demonstrates what features of property tax policy design individuals prioritize on the whole. I conducted surveys during a three-week period between November and December 2023 via an online platform. I surveyed a total of 2,026 residential property owners who self-identified as heads of household in 34 Mexican municipalities with populations of over 400,000 residents.⁵ Municipalities were selected based on size, survey respondent availability, and location, ensuring geographic diversity. I include a map and list of participating cities in Annex B (Figure B.1). Participants were recruited through a panel with the online survey company, Netquest.

Survey design

The survey asked respondents a series of pre-treatment questions about their socioeconomic conditions, housing, and post-treatment questions of their perceptions of their municipality and government. I additionally included demographic questions (gender, age, education level, income) at the end of the survey to reduce respondent fatigue.

In the conjoint portion of the survey, I asked participants to choose between two pairs of policy profiles seven different times. In this component of the survey participants were presented with the following prompt along with two policy profiles.

⁵ Oaxaca City, with a population of about 300,000 was an exception, and included to increase the regional diversity of the study.

Suppose that your municipal government is considering applying a property tax increase and applying changes to its property tax policy. Considering ALL the different dimensions, select, out of the two, the policy that you would support

Thus, each participant viewed 14 out of 5,184 possible profiles, which is the total possible number of profiles obtained through the randomization process of all attributes. Each profile had seven total dimensions and three to four potential attributes. In addition to randomizing the attributes included in each profile, I also randomized the order of dimensions presented by respondent. I did this in order to control for order effects while simultaneously reducing the cognitive load on respondents. In total, I obtained measures of support for 28,364 profiles, which is the n in this study. The profile selection variable served as the dependent variable for the study: "Selected profile"=1 and "Profile not selected"=0. I label this variable as "Policy Support".

Furthermore, I employed a uniform distribution of profiles and did not account for the likelihood of each profile appearing in the real world as is common of conjoint studies of political candidates (Bansak et al. 2023).⁶

Participant characteristics

This study examines the preferences of residential property owners who are heads of household or who share this responsibility. Although this omits commercial property, I found this strategy appropriate because residential property owners are more likely to protest property tax increases and additionally make up the largest share of property tax bills. Moreover, there is no available sample frame for commercial property owners. Additionally, I consider current property owners as opposed to potential or future property owners because the latter are impossible to identify reliably. In Annex B (Table B.1), I present the general characteristics of participants and the distribution of their demographics in terms of age, gender, income level, education, property type, and ownership status and compare this to census data on property owners in large urban municipalities in Mexico.

I crafted the survey to be as balanced as possible of property owners in urban Mexican municipalities by gender, socioeconomic level, and age. However, due to the online nature of the survey, the survey does not have accurate representation of property owners by age. According to census 2020 data, individuals over 65 years old represent 25% of property owners in Mexican municipalities. However, because the survey was

⁶ I considered this decision appropriate since profiles represented hypothetical policy choices with no individual choice more likely than the other.} Finally, in order to ensure engagement with the conjoint components of the survey, I used a quality control method which ensured respondents stay at least 6 seconds with each profile pair and ensured that they scrolled completely so they saw all profile dimensions.

carried out online this population is largely underrepresented in the sample size. This could admittedly present limitations to the external validity of the results which I discuss in the conclusion of this study.

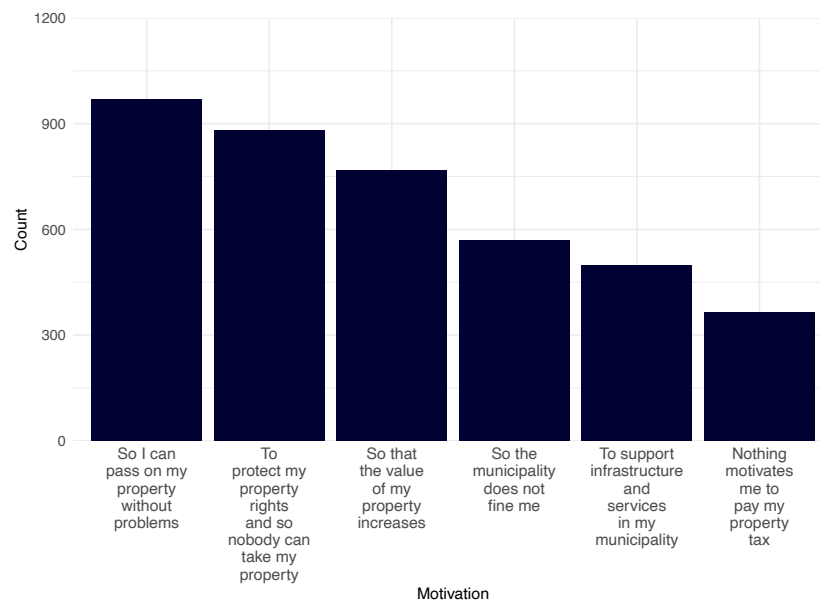
VI. Analysis

I analyze responses to survey questions and the conjoint experiment to examine how property owners perceive property taxes and their expectations about how government will use funds.

Motivations to pay

Some of the responses to the initial survey questions provide descriptive evidence that there is weak credible commitment that property taxes will be used appropriately. While property owners know that property taxes should be used to support infrastructure and service provision —something repeatedly expressed in focus groups and other parts of the survey— this does not appear to motivate property owners to pay property taxes. Responses to the question of motivation to pay property taxes demonstrate that the primary motivating factors for paying their taxes were related to ensuring that they could sell or pass on their property and so that their property rights wouldn't be undermined. These reasons are more closely related to the protection of their property rights than with how government uses tax payments. On the opposite side of the spectrum, the least popular choice after “Nothing” was to support the municipality's provision of services and infrastructure. I present the distribution of responses in Figure 2.

Figure 2: Motivations of pay property taxes



While these questions are not experimental, they suggest a breakdown in credible commitment and the current expectation that even if individuals were to contribute to property tax payments, this would not

necessarily translate to investment in the municipality's services and infrastructure. These responses suggest weak credible commitment of government in two ways. First, respondents express a belief that they need to use their property tax receipts as a way to demonstrate their connection to their property, a factor that ultimately motivates their payment. Secondly, even though individuals believe that property taxes should be destined to support service and infrastructure provision, the responses to this survey question demonstrate that property owners do not currently believe that their funds are used towards this objective. Responses to this question suggest that individuals perceive property taxes, not as a tool that government uses to undermine property rights, but rather as an instrument to constitute them (Goodfellow and Owen 2018).

Conjoint analysis

The primary source of data for this study and through which I will address my research questions is a conjoint experiment. In Table 3, I present the different conjoint categories and dimensions, including a label for baseline categories. In this case, the baseline category which is the category that I measure the effects over, is equivalent to the status quo. In other words, the baseline measure represents "0" and all increases or decreases in support are calculated in relation to that value.

Table 3: Conjoint dimensions and attributes with baseline categories

Dimension	Attribute	Base category
Percentage increase	20%	
	15%	
	10%	
	5%	X
Who pays	Higher increase applied to properties of over \$20,000,000 MXN	
	Increase will not apply to housing below \$350,000 MXN	
	Increase will apply equally to all properties	X
Calculation of tax base	Updated to closely align with land values	
	Free adjustment to accurately reflect square meters	
	Updated to align with market values	
	Government will not adjust cadaster base calculation	X
Transparency strategy	Yearly information on the use of PT revenue	
	Citizen oversight group	
	No additional action	X
Scale	20% of revenue spent at the neighborhood level	

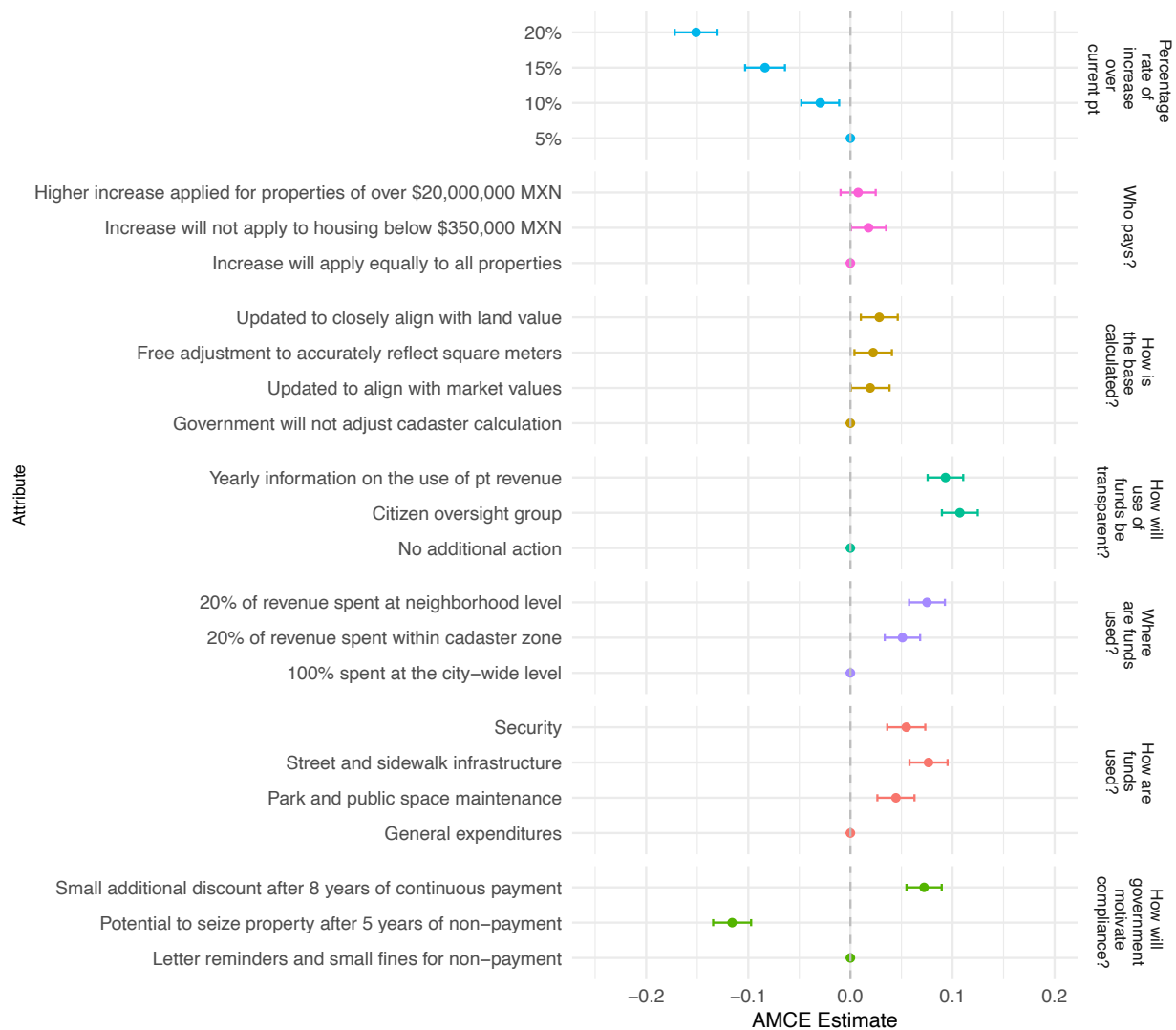
	20% of revenue spent within cadaster zone	
	100% spent at the city-wide level	X
Use of funds	Security	
	Street and sidewalk infrastructure	
	Park and public space maintenance	
	General expenditures	X
Compliance strategy	Small additional discount after 8 years of continuous payment	
	Potential to seize property after 5 years of non-payment	
	Letter reminders and small fines for non-payment	X

Main Effects

First, I consider the main effects of the experiment to address the question of whether property owners prefer property tax designs that increase the accountability of government. The measure of interest in testing these effects is the Average Marginal Component Effect (AMCE). This measure captures the causal effect of the presence of a given attribute on the probability that respondents would support or oppose the profile relative to a baseline and averaging over all respondents (Leeper, Hobolt, and Tilley 2020). The AMCE is therefore a causal measure of each attribute over the baseline level, which in this case is equivalent to the status quo

To calculate the AMCE, I regress the dependent variable of "Policy Support" on for each of the non-baseline attributes in the seven dimensions of each property tax profile and cluster standard errors at the respondent level (Ballard-Rosa, Martin, and Scheve 2017; Hainmueller, Hopkins, and Yamamoto 2014). Regression coefficients show the effect of the policy attribute on the probability that a property owner would choose one tax policy over another. The bars indicate 95% confidence intervals and the point indicates the baseline attributes. Figure 3 presents results for the AMCE estimates for each attribute in each of the seven categories.

Figure 3: AMCE Main Effects



The first category I include in the conjoint survey considers the willingness of individuals to support policy that has 20%, 15%, 10%, or 5% increases. The base value for this category was 5%, which is close to a standard yearly increase for many municipalities. For this dimension participants were presented with profiles including one of four percentage increases as an actual monetary value calculated based on their answer to a pre-treatment question which asked respondents to make their best estimate of the amount of their last property tax bill. Participants were able to choose one of ten possible continuous range values. I originally defined these ranges based on responses to the property tax payment question in the national expenditure

survey for 2020 (ENIGH). I include the distribution in Annex B, (Figure B.2). I then used the midpoint of these ranges and applied the percentage increase for each possible range.⁷

Results for this first category are consistent with expectations. Property owners oppose higher increases of property taxes. For example, property owners were 15 percentage points more likely to oppose a 20% increase over a 5% increase. They were also 8 percentage points more likely to oppose a 15% increase over a 5% increase. These measures facilitate interpretation of the rest of the results.

I find minimal effects in the second and third categories, which relate to increasing the accountability of government in terms of who pays and how the tax base is calculated. Making property tax policy more progressive by either eliminating the potential of an increase for properties with values below \$350,000 pesos (the amount that the government uses to define social housing) or applying a higher increase to properties over \$20 million pesos. This could suggest that individuals prefer simplified tax calculations. However, it is possible that individuals have no consistent preference over the progressivity of taxes, particularly when they are not personally affected by the change.⁸ These results are consistent with focus group findings in which I identify that individuals were minimally concerned with how much others pay in property taxes and whether they comply with their tax payments, but very concerned with their own payments. These findings suggest that property owners do not view property taxes as wealth taxes.

I also find small effects in how the government calculates assessment bases. Individuals demonstrate a slight preference for using an alternative method of calculation that is based on a property's market value or land value, as opposed to the cadaster value that government currently uses. However, these changes result in an increased probability of choosing a policy by two percentage points, which suggests that property owners do not currently prioritize this component of property tax policy or alternatively, that they do not believe that these changes could have a significant impact on improving the tax.

Respondents reveal the strongest support for adopting property tax policy designs that reform how government administers and uses funds. For example, using a passive or active oversight strategy increases support for a policy by 9 to 11 percentage points. This is consistent with previous scholarship which demonstrates that taxpayers more strongly support more active oversight strategies that involve intentional citizen involvement as opposed to passive reporting on how funds are spent. The positive response to these measures rivals the negative reaction to 15% or 20% increases, which were 8 and 15 percentage points more likely to be opposed than the 5% base value.

⁷ Values were corroborated with property value information that participants provided in other survey sections.

⁸ When I consider heterogenous effects by income, I find that higher income levels have a higher level of opposition to more valuable properties receiving a higher property tax increase (Annex B, Figure B.3). However, these effects are not significant.

Property owners also reveal strong preferences for where and how the government spends funds. The fourth dimension of this study presented property owners with the option to select policies in which a portion of the revenue from property taxes paid in their neighborhoods could be spent in their neighborhoods (a scale of about 10,000 homes) or cadaster zone (about 30,000 homes). I find that more direct use of funds increased support for a policy by 5 to 8 percentage points over the status quo baseline. These findings also revealed that individuals are sensitive to geographic scale and prefer policies that benefit them directly. While this view is consistent with the benefit view of the property tax (Fischel et al. 2005), previous scholarship has not explicitly considered whether support increases as benefit become more direct. This finding gets to a core challenge in local tax policy which is how to motivate support for property taxes by ensuring that taxpayers perceive that benefits are visible and direct, while simultaneously ensuring that the tax can be an effective mechanism for redistributing property wealth.

Results from the dimension of how funds are spent, the fifth dimension, reveal that property owners are also more likely to support earmarking a portion of property tax revenue. Property owners are 6 to 8 percentage points more likely to support policies that direct funds towards specific publicly provided goods, particularly road and sidewalk infrastructure. This finding is also consistent with previous scholarship, which has demonstrated that taxpayers prefer tax policy that directs portions of revenue to specific areas, particularly infrastructure (Martin, Lopez, and Olsen 2019). Property owners have a stronger level of support for property tax policy that offers them certainty that funds will be used for improving their municipality, rather than getting lost in the blender of revenue. Indeed, respondents gave equal priority to receiving more direct benefits in terms of scale (Dimension 4) as to funds being directed towards specific government actions.

The final dimension reveals that individuals have a stronger preference for property tax policies that encourage compliance through rewards rather than punitive government measures. Despite municipal governments being able to seize the property to pay back debt after five years of non-payment property owners are significantly opposed to such enforcement strategies. In fact, the prospect of this type of punishment reduces support for a policy by 12 percentage points, nearly equivalent to the effect of a 20% tax increase. Opposition to harsh strategies exists even though only 38% of respondents believe that in their neighborhood, nearly all or all property owners pay their property taxes, highlighting a disconnect between perceptions of compliance and the preferred mechanisms for enforcement.

Heterogenous effects: Perceptions of government

North and Weingast (1989) defined two possible paths for establishing credible commitment. The first path is through trust in government, which emerges through positive evaluations of government performance, trust in government action, and perception of qualities of government, such as honesty. The second path is through the implementation of structural and institutional factors that restrain the government's ability to

take arbitrary actions. I hypothesize that individuals have a stronger preference for property tax policy that increases the accountability of government and establishes its credible commitment. I therefore expect to find evidence that individuals who have lower levels of trust in government will more strongly support property tax policies that limit government discretion and increase government accountability. I present heterogeneous results using the AMCE measure rather than marginal means, recognizing that the latter is often used as a measure of interest in the study of heterogeneous effects.⁹

I study trust in government in consideration of two categories. The first is perception of government capacity and its ability to carry out its job and the second is the perception of government accountability.

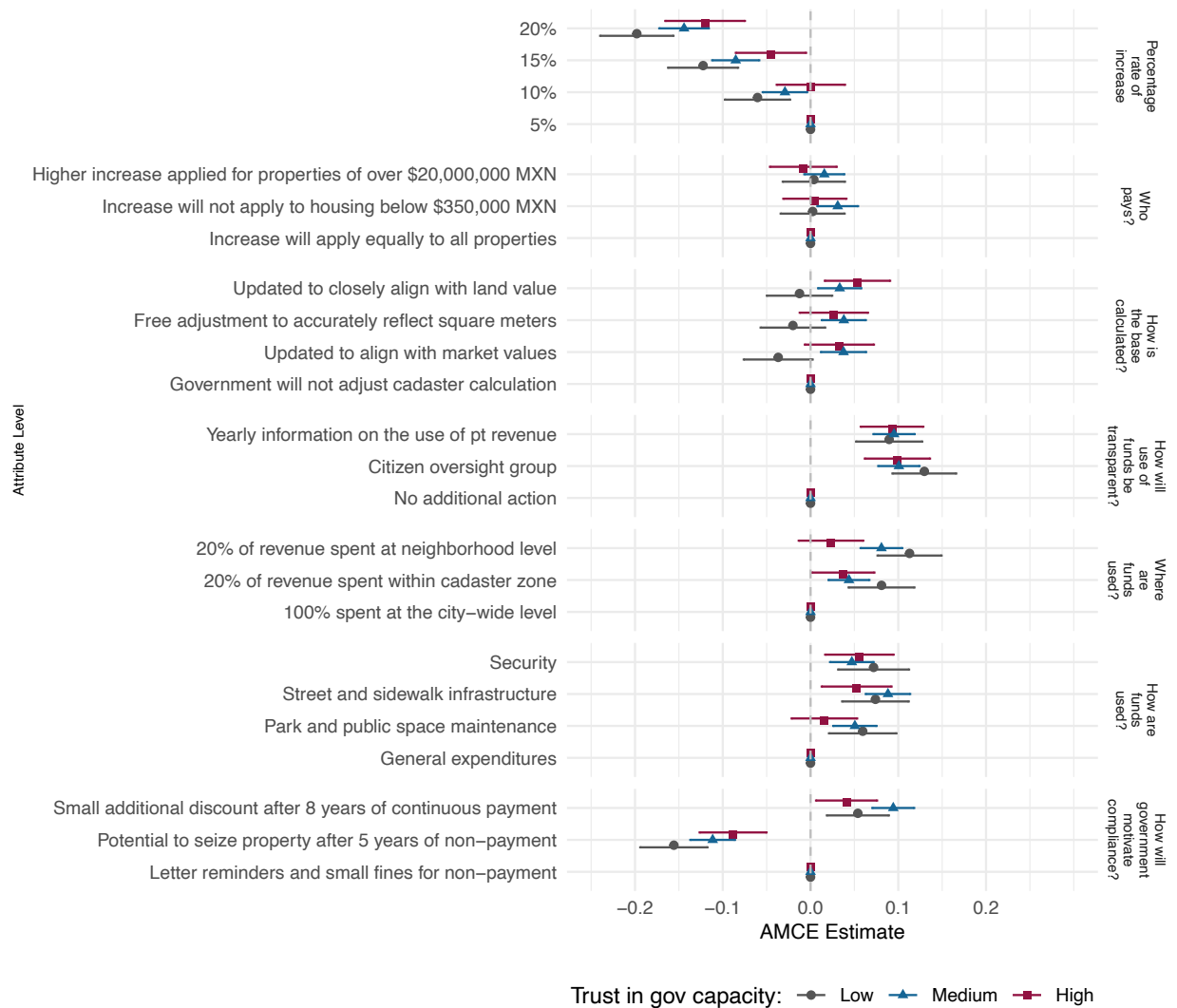
Perception of Government Capacity

The first sub-group category that I examine focuses on perceptions of government capacity, which assesses the belief that tax payments result in tangible municipal action and improvements. This is measured through evaluations of government behavior and expectations of future performance. I defined this category with an index based on the following five variables that corresponded to different survey questions: (1) Satisfaction with public services and infrastructure, (2) Perception that municipality is improving, (3) Perception that property tax increase would improve conditions in a municipality, (4) Motivation to pay property taxes linked to supporting service and infrastructure spending, and (5) Trust in government's ability to carry out its job. Based on this index I group individuals into three groups of perceptions of government capacity: low, medium, and high.

The five selected variables directly evaluate people's belief in the ability of government to bring about tangible actions and improvements by measures of past behavior and future expectations. This importantly measures expectation of benefits to the municipality in general and not specific benefits for the respondent. Figure 4 presents the general results for this category.

⁹ I do this taking into consideration the reservations presented in Leeper et al. (2019) who contend that because conjoint surveys typically use arbitrary baseline categories (such as, male or female) the AMCE measure is not adequate for sub-group analysis. This concern does not apply to this conjoint survey since I defined the baseline measure as the current status quo of property tax policy. Meanwhile, additional attributes represent policy reforms. The AMCE measure therefore reveals the subgroup effects of the differences in support for policy reforms over the status quo, making it an adequate measure for this policy design.

Figure 4: Heterogenous effects of perceptions of government capacity



The most significant sub-group differences are evident in the category concerned with the scale in the use of funds. Results reveal that property owners that have a lower perception of government capacity are significantly more likely to support policies that return a portion of their property taxes back to their neighborhood. For example, individuals who have a high perception of government performance are only 2 percentage points more likely to prefer a policy that reinvests a portion of property tax payments back to their neighborhood. In contrast, individuals who express a low perception of government capacity are about 11 percentage points more likely to prefer these policies—a difference of nearly 10 percentage points. Interestingly, there are no significant differences when one considers the cadaster area level, which suggests that there is a spatial dimension in which people prefer specifically direct, neighborhood-level benefits.

These results indicate that skepticism of government capacity weakens credible commitment and may lead to support for less redistributive policies. Implementing measures that increase the perception of government capacity could thus be important for decreasing spatial inequalities, which should be a line of study for further research. Additionally, these findings suggest that support for policies that redirect a portion of property tax revenue back to individuals is not necessarily a result of self-interest but could also be influenced by distrust in government's effectiveness.

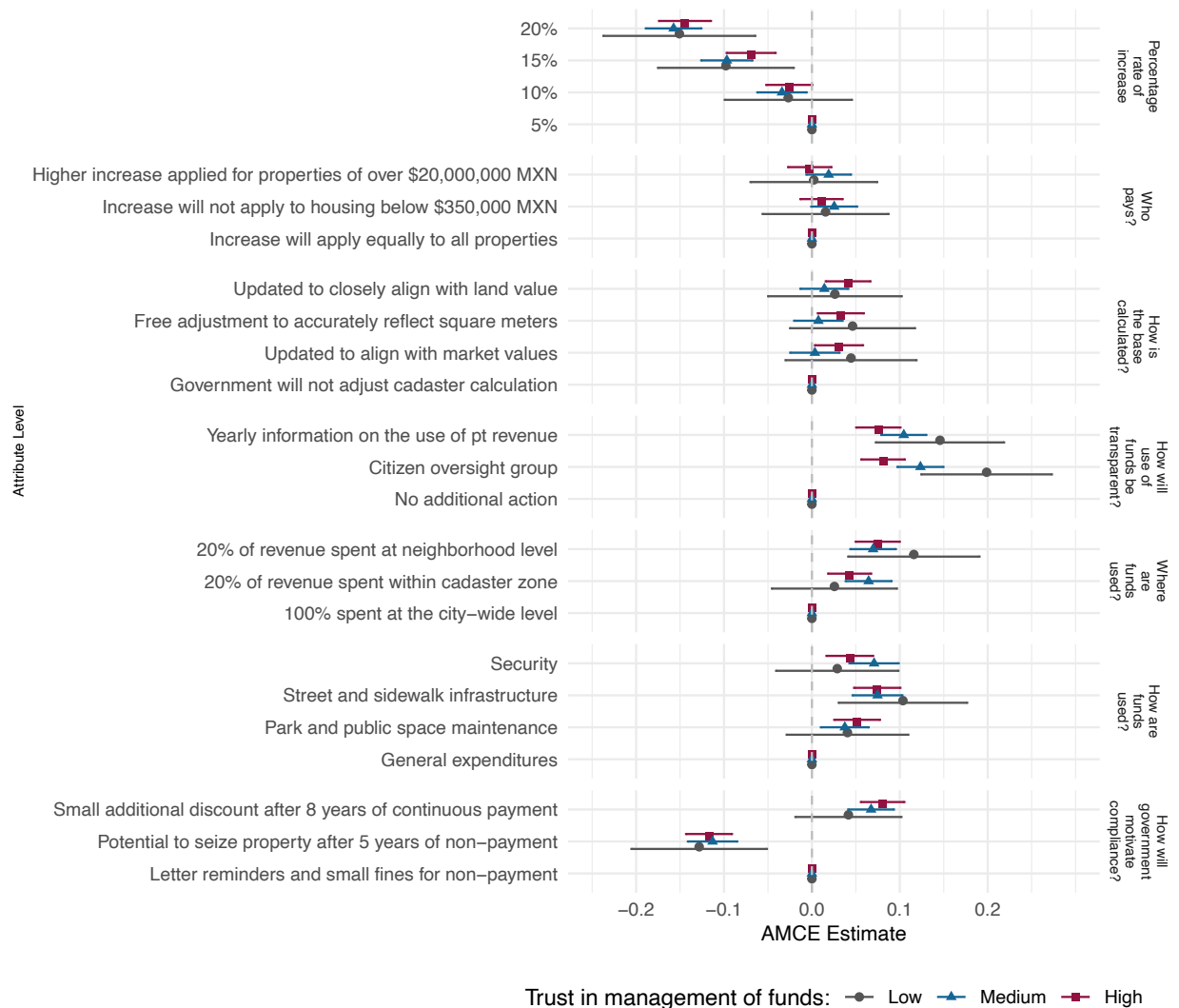
I also identify movements in the first category, which considers different levels of property tax increases. I find that individuals with a lower perception of government capacity are also more strongly opposed to higher property tax increases. For example, an individual with a low perception of government capacity is 20 percentage points less likely to choose a 20% increase over a 5% increase. Meanwhile, individuals with a high perception of government capacity are 12 percentage points more likely to oppose a policy with a 20% increase than the baseline category of a 5% increase. I identify a similar trend the level of a 15% increase.

These findings suggest that individuals with weak perceptions of government capacity and low confidence in its ability to fulfill its promises are less willing to accept higher property tax increases. This is likely because their experience with government prompts them to have low expectations for the future and weak beliefs that the government will use property tax funds for the intended purpose.

Perception of Government Integrity

I also study the heterogeneous effects of perceptions of government integrity. I created an index using two variables. The first variable considers the perception of the share of municipal employees that are corrupt, and the second variable considers individuals who consider the lack of financial accountability to be one of the leading problems in their municipality. I present the analysis of heterogeneous effects of perception of government integrity in Figure 5.

Figure 5: Heterogenous effects of perception of government integrity

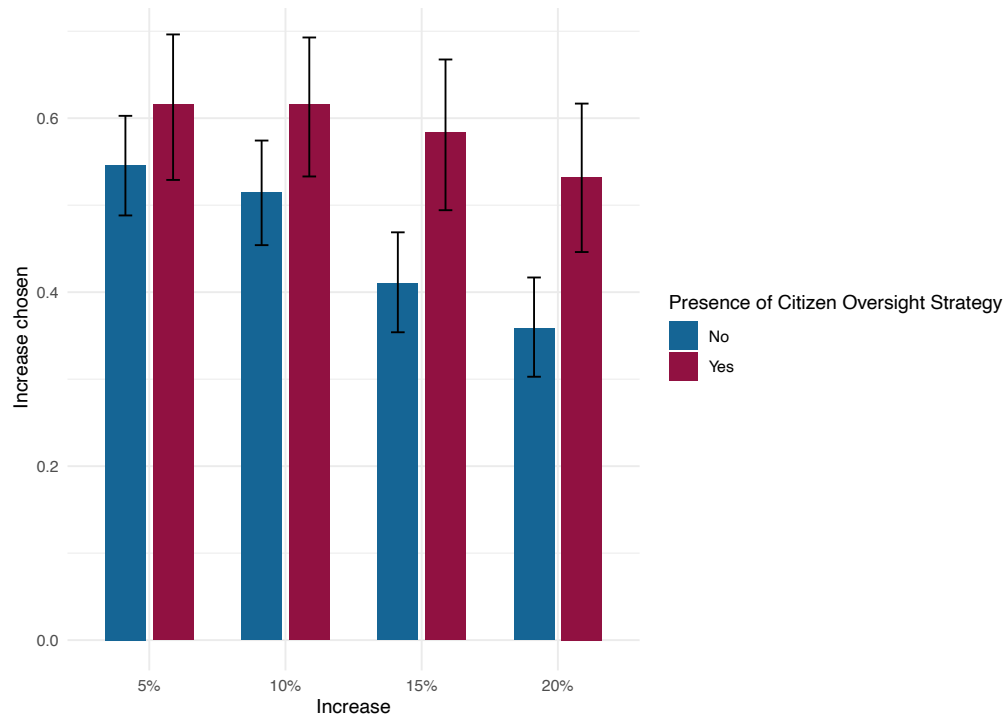


Overall, the category concerning transparency strategies demonstrated the most significant sub-group differences. Property owners with low perception of government integrity are significantly more likely to prefer property tax policy that includes an active transparency strategy over one that does not. For example, property owners with low perception of government integrity are 20 percentage points more likely to prefer a policy with an oversight strategy while individuals with a high perception of government integrity are only 7 percentage points more likely. These results reveal that the presence of oversight strategies is particularly important for individuals concerned with mismanagement of funds by government.

Overall, property owners with low perceptions of government integrity do not significantly oppose property tax increases more than those with high perceptions of government integrity. However, I find that property owners who have a low perception of government integrity (n= 258) were significantly more likely to support

a higher property tax increase of 20% or 15% when an active citizen oversight strategy was present in the policy. I present these results in Figure 6.

Figure 6: Support for property tax increase with active transparency strategy present



Property owners with a low perception of government integrity are significantly more likely to support a 20% or 15% increase when active transparency strategies are in place than when they are not. However, they appear to be indifferent to the presence of these strategies when a 10% or 5% increase is at stake. These explorative findings, consistent with previous scholarship, (Hsu 2024), suggests that individuals most concerned with the mismanagement of funds more strongly value active transparency strategies and are willing to pay for their integration. Notably, this reveals that support for property tax increases is not inelastic but must respond to the concerns of citizens.

Government Skeptic

Since heterogenous effects are not causal, but rather reveal subgroup effects, I consider the relationship between different socioeconomic variables and a new aggregate variable that includes both measures of trust in government presented in the previous analysis. I label this new aggregate variable, “government skeptic”. I study whether this variable of government skeptic correlates with other socio-economic, demographic, and political factors, such as age, political party affiliation, political party alignment, income, level of education, or municipality size variables.

I find the strongest relationship between being government skeptic and political party alignment. Specifically, I find that being aligned with the political party in power decreases the likelihood of being a government skeptic by 64%.¹⁰ The importance of political party alignment is consistent with previous research that shows that the ideology of governments is important in determining the types of tax policy they can employ for no other reason than that they can more easily credibly commit to bringing benefits to the group they intend to tax (Timmons 2010). However, no single one of these characteristics can explain all of the results to the same extent as the two indexed variables measuring trust in government.¹¹ I include regression results in Annex B, Table B.2.

VI. Discussion

This study contributes to addressing a fundamental tension of urban governance, which is that citizens demand quality services and infrastructure, but often resist the taxes necessary to fund them (Timmons 2005, Levi 1988). The resistance of payment can be attributed to a variety of factors, among them, a perception that increases would not result in improved municipal conditions. In other words, there is weak credible commitment, meaning that the public does not believe that government will fulfill its promises and use funds appropriately. I use a conjoint experiment to study property tax preferences and identify whether policy design can fortify credible commitment, particularly among individuals that have lower levels of trust in government capacity and integrity. Results are partly consistent with my initial hypothesis that individuals demand policy that increases the accountability of government. I found the strongest effects in categories pertaining to how funds are administered, used, and enforced. The results demonstrate that property owners are much less concerned with the amount of taxes that others pay, as well as the base of the tax. The core evidence demonstrates that property owners prefer increased visibility in the administration of taxes, with the highest support for policies that increase transparency and accountability in how government spends funds.

Overall, this study provides five insights into how property owners perceive property taxes in contexts of low trust. These findings contrast with scholarship on property taxation that has emerged from a U.S. context (Bradbury, Mayer, and Case 2001; Fischel 2009). Firstly, this study demonstrates that property owners are primarily motivated to pay property taxes, not by the prospects that the government will improve and maintain services and infrastructure, but rather by the role of this tax in establishing their property rights. This is a benefit of property taxes that has been understudied and more salient in contexts with property rights ambiguity (Goodfellow and Owen 2018).

¹⁰ I coded this variable by looking at which party was in power for each municipality at the time that the survey was carried out. Then, I checked political party alignment by considering respondent's response to question on political party support.

¹¹ I include the graph of heterogeneous effects of political party alignment in Annex B Figure B.4.

Secondly, I find that property owners support policy designs that increase the accountability of government administrators and spends collected tax revenue. Mexican municipalities have innovated with strategies to strengthen the link between property tax payments and service and infrastructure provisions. For example, the municipalities of Zapopan and Guadalajara in the Guadalajara metropolitan zone allow taxpayers to vote on participatory budget projects at the time of paying their property taxes (Martinez 2025). The municipalities also allocate 15% to 30% of property taxes collected to their participatory budget program, which strengthens the payment-benefit connection. Similarly, the municipalities of Colima and Mexicali have kickstarted initiatives to pave street roads in order of property tax compliance by neighborhood (Jimenez 2024). These strategies could be important for increasing support for taxes amongst the general population, particularly low trust individuals. Additionally, they help to strengthen the payment-benefit relation, which is central to the fiscal contract. However, this appears with a tradeoff. Making benefits more direct to specific zones could potentially maximize revenue but may undermine the redistributive character of the tax by concentrating benefits in neighborhoods with high compliance. Further studies should consider whether additional potential revenue from direct benefits compensates for the potential drawbacks of this strategy.

Thirdly, I find that property owners are more significantly concerned with government properly spending funds and having the adequate transparency measures in place rather than with being directly benefited from tax payments. This suggests that how people perceive property taxes in low trust contexts such as Latin America is meaningfully different than the United States and deserves further inquiry. Property owners clearly prioritize transparency and strongly support property tax policy that integrates this policy reform. However, carrying out transparency reforms in a broad way could have pose a risk for local governments as they could invite public critique and carry political weight (Berliner 2014). This could result in local governments continuing to prioritize low-cost strategies such as discounts and raffles that do not respond to the real demands of citizens. Nonetheless, successful cases of citizen comptroller programs could serve as a model for other large municipalities in the region (Martinez Llompart 2016). Future scholarship should consider the openness of local governments towards implementing measures of financial transparency and the barriers for implementation.

Fourthly, I provide local-level evidence demonstrating that how people perceive local government influences their preferences for property tax policy, particularly in regard to the scale in which funds are spent and the use of transparency measures. For example, I find that individuals with lower levels of trust in government capacity may also have a lower level of support for more redistributive policies at the local level. While this finding is not causal it is consistent with previous scholarship and merits further investigation (Kuziemko et al. 2015; Marr and Tan 2014).

Finally, findings from this study suggest that individuals who have lower perceptions of government integrity place more value on the presence of transparency strategies. This means that they are actually willing to pay a higher rate of increase when these measures are present. Importantly, this offers initial evidence that the implementation of transparency measures could motivate support for property tax increases among individuals who are most skeptical of government processes.

External validity

Three design components of this study could jeopardize its external validity. Firstly, as previously mentioned, the sample is not fully representative of property owners in large Mexican municipalities because of the difficulties in reaching certain groups through an online survey. Even though previous scholarship has demonstrated that online survey tools yield comparable results to samples from fielded surveys, the views of certain populations may be underrepresented in this study (Stantcheva 2023). For example, the wealthiest and lowest income individuals who are the most likely to live in a condition of informality are difficult to reach through online methods. Therefore, their views are not fully represented in this study. Additionally, older individuals who represent an important share of property owners in Mexico are less likely to use online survey platforms than younger individuals. This survey exercise has limitations in presenting their views. Secondly, this survey presented individuals with a hypothetical scenario of choosing which property tax policies they would be more willing to support. This design is helpful in understanding the multidimensional ways that property owners define their property tax preferences, however, it admittedly presents respondents with a scenario that does not reflect reality as it is uncommon to have taxes on property tax policy.

Finally, since the data captured in this survey comes from stated preferences over hypothetical scenarios, they may not be consistent with tangible behavioral changes in the case that these policy changes were applied. Nonetheless, the findings from this study are still valuable for understanding what aspects of property tax policy taxpayers prioritize as a whole, as well as their preferences across different categories of property taxes. It additionally creates the opportunity to study property tax preferences across a variety of Mexican municipalities that may not be able to easily implement property tax changes.

VI. Conclusion

Latin America is a region of low fiscal effort that primarily relies on regressive consumption taxes (Flores-Macias 2019). Strengthening property tax collection represents a potentially important strategy for shifting to more progressive and redistributive taxes in Latin American cities. This source of revenue can be particularly important in supporting local finances and ensuring that local governments can adequately satisfy the needs of their populations. Yet, low public support is often presented as a barrier towards increasing property tax collection. Evidence from this study suggests that support for property taxation is not fully inelastic and

policy designs that increase the accountability of how government administers and used funds can promote support for this tax.

Findings from this study suggest that efforts to increase local property tax collection do not only imply technical reforms, such as modernizing cadasters (Beltran and Martinez-Vazquez 2025). Rather, these efforts also must also involve the integration of more significant strategies that strategically address the concerns of taxpayers. Municipalities must demonstrate their credible commitment to using tax payments to bring forth tangible municipal improvements. This does not solely mean appropriately spending the money, but also that municipalities enact proper communication channels in place to transmit this information to taxpayers.¹²

¹² This was evidenced in the as the survey's open-ended questions in which several respondents expressed their concerns and discontent with some municipal services and infrastructure, as well as the perceived limitations of the property tax system.

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