CONSTRUCTING ALLIANCES: THE POLITICS OF INFORMALITY IN WEAK STATES

A Dissertation

by

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ABSTRACT

In contrast to initial expectations of canonical economic development models, economic informality has remained a key feature of developing countries. Not only does informality create fiscal problems, but it is also reflective of a dysfunctional social contract between the state and its citizens. Despite extensive research on the persistence and growth of informal economies, the political dimensions of informality are largely unexamined. This dissertation begins to answer three important questions to address this blind spot: (1) Under what conditions do politicians tax the informal sector? (2) What explains the varying levels of informality? (3) Why and when does precarity engender divergent preferences for redistribution? The findings show that the heterogeneity in the informal sector in weak states leads to heterogeneous state responses, and therefore varied and complex interactions between the state and informal actors. The answers in my dissertation provide important insights into the governance implications of pervasive and persistent informality in developing countries.

DEDICATION

To Jens Christian, for always believing in me.

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1. INTRODUCTION

Canonical models of economic development see informality as a nascent stage of progress, to be displaced with formal work as economies grow (Hart, 1973). Yet, pervasive informality has been in lockstep with rapid economic growth in many developing countries (Heintz and Pollin, 2003; Kanbur, 2017). While precise measurement of informality is difficult, the International Labor Organization estimates that over 2 billion workers operate in the informal sector (International Labour Organization, 2018). The report further noted that 93% of the world's informal employment is in the Global South. Informal employment as a proportion of non-agricultural employment is estimated to be over 72% in sub-Saharan Africa, 68% in Asia, and 40% in Latin America, with wide variations among different countries.

Widespread informality is generally viewed as an obstacle to economic development in developing countries. Not only does it produce economic distortions, but it also undermines the ability of governments to collect taxes and provide public goods. It is also reflective of a dysfunctional social contract between the state and its citizens. Large informal sectors indicate a vicious cycle involving the withdrawal of citizens from fiscal obligations and the failure of the state to provide public services (Jütting and De Laiglesia, 2009; Meagher, 2018). As a result, most research on the informal sector has devoted considerable effort to defining the causes and features of informality, as well as examining its effect in economic development (see discussion in, e.g., Schneider and Enste, 2000; Djankov, Lieberman, Mukherjee and Nenova, 2002; Gerxhani, 2004). The political dimensions of informality, however, are largely unexamined. This gap in the existing literature is primarily due to the deeply entrenched views that tend to (1) treat the informal sector as a monolith and (2) deprive its people of political agency.

In this dissertation, I explore these blind spots in order to improve our theoretical understanding of the politics of informality and its implications on governance outcomes. The main contribution of this research is to show that the heterogeneity in the informal sector leads to heterogeneous state responses, and therefore varied and complex interactions between the state and informal

actors. To date, these interactions are understudied due to the characterization of the informal sector as a monolithic group of people who are incapable of organization, collective mobilization, and political engagement. This dissertation begins to answer three important questions: (1) Under what conditions do politicians tax the informal sector? (2) What explains the varying levels of informality? (3) Why and when does precarity engender divergent preferences for redistribution?

In the next section, I provide some clarifications of and reflections on the term "informal sector". This is followed by a brief discussion of why people in the informal sector are seldom seen as political actors. I then present a short overview of the chapters in this dissertation.

1.1 Defining the Informal Sector

Since its inception, the concept of the "informal sector" has been subject to considerable criticism and disagreement (see discussion in, e.g., Potts, 2008).[1] While the concept is fuzzy and contested, the term continues to be widely used. The most common and minimalist definition of the informal sector refers to the set of economic activities that lie beyond the purview of government regulation (Castells and Portes, 1989). The term, first coined by Hart (1973), initially applied to self-employment in small-scale unregistered enterprises but has been expanded to include wage employment in unprotected jobs (International Labour Organization, 2002). The informal sector, while often perceived as illegal, is not to be conflated with the "shadow economy". Whereas the "shadow economy" consists of unlawful or unethical activities, like illicit drug trade and gun smuggling operations, the informal sector produces goods and services that are usually regarded as legal but are 'illegally" produced and/or distributed (i.e., outside state regulations) by regular citizens trying to earn a living.

Scholarly impressions of the informal sector are shaped by the dual labor market theory, which states that the economy is divided into two parallel markets: primary ("good" jobs with high wages, employment stability, and chances for advancement) and secondary ("bad" jobs with low wages, job

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[1]In fact, the term "informal sector" is subject to debates, with some scholars and development practitioners advocating the use of "informal economy" instead of "informal sector" to encompass informal wage labor, the self-employed, and informal sector firms (Hussmanns, 2004; Joshi, Prichard and Heady, 2014). The trend in the existing literature, however, is to use the terms interchangeably.

insecurity, and little opportunity to advance) (Harris and Todaro, 1970; Piore, 1970). In the initial 1970s formulation by Hart (1973) and the International Labour Organization (1972), the informal sector refers to the "traditional" and subsistence-oriented employment outside of the "modern" formal sector. The implication of this notion of informality is that modernization and economic growth would facilitate the absorption of the "traditional" secondary sector by the "modern" primary sector (Kudva and Beneria, 2005). The rapid expansion of the informal sector since the late 1980s has reversed these expectations, as the informal sector has proved to be dynamic and a source of economic growth. While early modernist scholars view informality as a problem of capacity, De Soto (1989) and others perceive the informal sector as a reflection of the distorting effects of government intervention. According to this view, "plucky entrepreneurs" operate informally because of the high transaction costs of bureaucratic procedures and improper regulations in the formal sector. As a result, the concept of the informal sector moved beyond identifying subsistence activities to a focus on the legal status of the business, i.e., whether it is registered and compliant with relevant registration. This legal definition is the most widely used today (Gerxhani, 2004).

The description of the informal sector as an opposition to the formal sector, however, is misleading. Since the 1980s, globalization as well as the debt crisis and the concomitant macroeconomic restructuring have extended the linkages between the formal and informal sector, and blurred the boundary between the two. Not only do these sectors interconnect in multiple ways, but there is also a high level of fluidity between formal and informal jobs, as well as between different forms of informal work (Baker and Velasco-Guachalla, 2018). The result has been an extensive heterogeneity in informal activities, ranging from large manufacturing and subcontracting firms to micro-enterprises and home-based production. The income-generating capacity within the informal sector is also heterogeneous. While it still represents extreme forms of precariousness for workers, the informal sector has also been a source of economic dynamism and growth (Kudva and Beneria, 2005). Moreover, the duality description does not reflect the reality that the decision to operate in the informal sector is not a binary choice, but a continuum of choices. As is evident in the developing world, firms do not fall neatly into the formal/informal dichotomy. Instead, informal enterprises

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often display differing levels of informality in that they comply with formal rules and regulations to some degree, but not completely (Williams, Shahid and Martínez, 2016). These changes have raised new questions about how to redefine the informal sector in order to understand its nature and downstream economic and political implications.

1.2 Causes of Informality

Many of the reasons for the existence and growth of the informal sector are well-documented in the economics literature. Economists have proposed and tested a broad range of theories on the persistence and prevalence of the informal sector, pointing to a myriad of economic, structural, and institutional factors (see discussion in, e.g., Schneider and Enste, 2000; Djankov et al., 2002; Gerxhani, 2004). These factors include the inflexibility of the formal labor market, high costs of formal production, and increased leisure time. Works in this literature have focused almost exclusively on the motivations of individuals as economic agents.

In contrast, the literature in political science has focused on explanations for the rise and persistence of informality centered on the state. According to this view, the informal sector is indicative of the state's limited capacity to monitor and enforce rules and regulations, including labor laws, registration, and taxation (Levitsky and Murillo, 2009; Besley and Persson, 2011; Holland, 2016, 2017). The implicit assumption within this approach is that the state always tries to enforce the law but fails if its capacity is weak (Skocpol and Finegold, 1982; Mann, 1984; Dincecco, 2017). Since classic definitions of state capacity focus on the government's ability to enforce binding rules and accomplish its intended policy goals, many empirical works in political science use the size of the informal sector as a proxy for state capacity (see, e.g., Polidano, 2000; Besley and Persson, 2011, 2014).

The dominant and recurrent theme in the literature, however, is that informal workers are seldom seen as political actors. The most frequently made, well-known argument is that informal workers lack voice and the ability to exert power and influence because they are socially atomized and relatively lacking in immediate, visible common interests (Baker and Velasco-Guachalla, 2018). The heterogeneity in interests and experiences creates high barriers to collective action.

These barriers include uncertain legal status, job insecurity, low income and education, and high costs to organizing large numbers of atomistic workers (King and Rueda, 2008; Hummel, 2017). Therefore, people in the informal sector are expected to address their immediate needs in a quiet and atomized fashion instead of through collective demand-making (Bayat, 2004). This view, however, ignores the marked economic differentiation that has become a feature of many contemporary informal economies. Rather than an exclusive domain of the "working poor" and the vulnerable, the informal sector today contains considerable differences in economic capacity, skills, and relations of employment. Sociologists have documented that some workers organize themselves to create opportunities to negotiate with, ally with, or defy the state (Agarwala, 2013). Others achieve influence by networking with political elites or by engaging in alliances with other actors like formal workers and transnational organizations (Prag, 2010).

The state is not bound to just one form of action. In some cases, the state uses a variety of tools that range from encouragement to overt sanctions to identify and control informal actors. For instance, the state may create informal organizations to reap the benefits of delegating monitoring and enforcement (Hummel, 2017). It can also impose crackdowns, evictions, confiscations, or even militarized clean-up operations (Kamete and Lindell, 2010; Resnick, 2019). In other cases, the state opts for inaction, essentially suspending the law and distributing exceptions (Holland, 2016, 2017). The different modalities of power used by the state may also be deployed selectively upon particular groups of informal actors and change over time (Lindell, 2010). All of these examples suggest that a nuanced understanding of the politics of informality requires an examination of the different and varied ways in which different groups in the informal sector experience and relate to the state.

1.3 Chapters Outline

The chapters of this dissertation are organized to address the aforementioned research questions on the political dynamics of compliance and enforcement in weak states, and their effects on governance outcomes. In chapter two, I propose and test a theory to explain how the prevalence of informality affects the tax structure in developing countries. I argue that political competition in countries with large informal economies undermines efforts to bring the informal sector into the

formal tax system. Paradoxically, the commitment to abstain from enforcement in exchange for electoral support forces politicians to rely more heavily on indirect taxation and, in turn, increase the informal sector tax incidence. My findings reveal that the reduction in tax collection prior to elections when political competition is high and the informal sector is large is accompanied by greater reliance on regressive consumption taxes.

In spite of efforts to make it easier for firms to enter the formal sector, the effects of these reforms are mixed. I contend that by recognizing that formalization is not a binary choice, but rather a continuum of choices motivated by cost-benefit calculations of being in one level or another, we are better able to identify mechanisms that can successfully link the informal sector with the state. In chapter three, I theorize that linkages with the formal sector explain the differing levels of informality in weak states. Specifically, when formal enterprises take on the role of the state by supplying underprovided public goods, informal firms have incentives to register with the state through business registration, which is a way to be perceived as "legal". This positive effect on state legibility, however, is accompanied by a negative impact on state-building. On the one hand, non-state service provision improves the state's information about its citizens, which is an important dimension of state capacity, as informal firms take steps toward formality. On the other hand, where the state is unable to credit-claim, non-state service provision weakens citizen support for the fiscal exchange. Therefore, while formal-informal linkages can encourage state registration, through the governance role the formal sector plays, such linkages can also discourage tax registration and compliance.

In chapter four, I investigate why works adapting models of redistributive politics in the Global South do not find a relationship between an individual's exposure to unemployment risk and preferences for the scope and size of the welfare state. I argue that interpretations of support for redistribution and its relationship to precarity are unreliable when precarity is imputed from the formal-informal dichotomy because precarity and informality are distinct concepts. My results show that by reversing this strategy and operationalizing precarity at the individual-level, the relationship between risk and redistribution becomes clearer: individuals in risky and precarious jobs are more

likely to prefer redistributive policies that can protect them from an uncertain future. However, I find that not all precarious workers are in the informal sector, and not all workers in the informal sector perceive their employment to be precarious.

The last chapter presents a brief summary and discussion of the findings in this dissertation. These findings further our understanding of the politics of informality, provide important insights into the nature of relations between the state and the informal sector, and enhance our understanding of the governance implications of the growth and persistence of informality. This chapter also includes a discussion of several perspectives for future research.

2. POLITICAL COMPETITION AND INFORMAL SECTOR TAXATION

2.1 Introduction

Despite extensive research on the persistence and growth of the informal sector, we still have a limited understanding of its political implications, particularly on voter preferences and politician incentives for taxation. This limitation is in part due to the fact that researchers generally do not consider members of the informal sector as political actors. Given that the rapid expansion of the informal sector since the 1980s created a diversity of groups with varying degrees of economic capacity and interests, what is the effect of this growth on the incentives of politicians to tax the informal sector? This question is of contemporary relevance because the prevalence of informality is not only a fiscal issue, but it can also be indicative of a dysfunctional social contract between the state and its citizens (Jütting and De Laiglesia, 2009). While a functioning social contract is defined by the fiscal exchange, wherein citizens pay their taxes and the state provides public goods, large informal sectors reflect a vicious cycle where citizens exit from fiscal obligations and the state fails to provide decent services for their populations (Meagher, 2018). As such, taxing the informal sector has been advocated not only to add to the public coffers, but also as a means to improve accountability between the state and its citizens.

In the existing literature, informal sector taxation can be categorized into three broad categories: the expansion of formal sector taxes, introduction of specialized presumptive tax regimes (i.e., simple taxes based on "visible" firm characteristics and paid on a lump-sum basis), and indirect taxation through consumption taxes (Joshi, Prichard and Heady, 2014). The first two are direct tax instruments that require informal actors to enter the formal tax system. Critics argue that taxing the informal sector directly can give rise to significant collection costs, even if taxes are simplified, owing to the large number of potential taxpayers in the informal sector and the challenges of monitoring "hidden" economic activities. Informal sector taxation also raises equity concerns because it risks exposing vulnerable firms to harassment and coercion by corrupt tax officials

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(Joshi and Ayee, 2008; Titeca and Kimanuka, 2012). Given the low "value for money", many tax experts and tax administrations have been skeptical of employing scarce government resources on bringing the informal sector into the tax net. Instead, they advocate for indirect coverage through standard tax regimes, such as consumption tax. "Indirect" implies that informal sector firms are not registered as taxpayers per se, but are nevertheless taxed by virtue of taxes paid on goods and services higher up and lower down the value chain (Joshi, Prichard and Heady, 2014). Indirect taxation, specifically through consumption, is easier to enforce as it does not require any active informal sector participation in the tax system, harder to evade compared to formal sector tax instruments, and less economically distorting than import and export duties (Keen, 2008; Gordon and Li, 2009; Joshi, Prichard and Heady, 2014). It is commonly regarded as inherently regressive, however, as taxing consumption raises the relative tax burden on low income households that spend a greater proportion of their income on consumable goods.[1]

Beyond the revenue implications, new perspectives concentrate on the indirect benefits of informal sector taxation. One argument for direct taxation is linked to economic growth in that it is a central element of formalization. Formalization, in turn, might bring positive benefits to informal sector firms, such as access to capital markets, new market opportunities, and social protection, which can increase firm productivity and profitability (Joshi, Prichard and Heady, 2014). Another argument for direct informal sector taxation is that it serves to bring firms into the formal tax system, which extends the state's informational reach. Legibility, or the extent of systematized information that central states possess about their citizens (Scott, 1998; Bowles, 2020), has been shown to be an important dimension of state capacity (Lee and Zhang, 2017). A related argument suggests that by entering informal sector firms into the tax net, the state is building a culture of tax compliance (Terkper, 2003; Alm, Martinez-Vazquez and Schneider, 2004; Torgler, 2005). As Joshi and Ayee (2008) explain, developing a culture of compliance can be a way of re-engaging citizens with the state, which strengthens the fiscal contract. Indeed, the link between informal sector taxation and

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[1]While reduced taxation of some commodities, like food, exists to benefit the poor, some argue that it provides a larger absolute benefit to the rich, belying claims of redistributing toward the poor (Keen, 2008). This view is especially prevalent among civil society actors (Alavuotunki, Haapanen and Pirttilä, 2019). Some academics are more skeptical (see e.g., Bird and Gendron, 2007; Boadway and Sato, 2009; Bachas, Gadenne and Jensen, 2019).

improved governance has been the primary driver of the international development agenda to invest in efforts to encourage formalization (Keen, 2013; United Nations, 2015).

In this paper, I argue that political competition in states with large informal economies can actually undermine state-building by disincentivizing efforts to bring the informal sector into the tax net. First, a long-established literature in political economy show that politicians, especially in contexts where institutions are weak, seek to secure political support by employing short-term fiscal policy measures in advance of competitive elections (Drazen, 2000). Since direct taxes are, in principle, more visible than indirect taxes, and more politically salient, reductions in direct taxes can be politically strategic, as it allows politicians to target specific groups more effectively than may be possible through expanded public spending (Prichard, 2016).[2] This strategy limits the set of tax policy instruments available for the state to provide public goods and makes indirect taxes, which are comparatively invisible to taxpayers, a more feasible source of revenue. Additionally, as aforementioned, indirect taxes generally require less fiscal capacity.

Second, although there has been limited research, there are theoretical reasons to expect that politicians may have weak incentives to tax the informal sector directly. Apart from the administrative challenges, taxing the informal sector may be politically costly. As such, it can politically strategic to leave them alone. For instance, one mayor in the Philippines disclosed that she specifically instructed her office to refrain from enforcing local taxation and other regulations on informal sector firms and workers because it is politically unpopular.[3] Thus, it may be a rational move for politicians to forego tax enforcement in order to keep the informal sector as a captive source of votes (Joshi, Prichard and Heady, 2014; Holland, 2017). Tendler (2002, p. 2) calls this arrangement a "devil's deal", wherein politicians promise informal sector operators: "if you vote for me [...] I won't collect taxes from you; I won't make you comply with other tax, environmental, or labour regulations; and I will keep the police and inspectors from harassing you." As a result, where elections are competitive, the tax options open to governments are constrained by the way informal

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[2]Hollenbach and Silva (2018), for instance, demonstrate that economic elites face strong incentives to undermine the state's ability to collect taxes in order to keep their own tax burden low.

[3]Interview with Mayor from the Philippines, November 2021.

sector actors will react to them. Paradoxically, the commitment to abstain from enforcement in exchange for electoral support forces politicians to rely more heavily on indirect taxation.

To investigate the theoretical argument, I use the recently created Government Revenue Dataset, which provides improved data coverage and accuracy across developing countries. I show that, contrary to the models in the optimal tax policy literature, the prevalence of economic informality does not have a significant effect on indirect taxation. It does, however, increase the state's reliance on consumption taxes where elections are competitive. These findings provide evidence that political competition affects the capacity of informal sector actors to resist direct taxation, and, in turn, undermines state-building.

2.2   Informal Sector Taxation

Widespread informality is a persistent phenomenon in developing countries. Not only does it create a fiscal problem, it also raises equity concerns in that informality can discourage tax compliance among formal firms that view the failure of informal firms to pay taxes as unfair (Terkper, 2003; Alm, Martinez-Vazquez and Schneider, 2004; Torgler, 2005). As a result, the formalization of informal sector activities, with taxation as a key ingredient, has increasingly received attention in scholarly and policy circles. Most of the research on informal sector taxation has been devoted to defining the features of appropriate tax policies, which are based in theoretical models or experience of policymakers who have advised countries on their tax reforms (Joshi, Prichard and Heady, 2014). Within this literature, many researchers argue that indirect taxation, specifically taxes on goods and services, is the optimal tax design in the presence of informal workers and firms (see, e.g., Piggott and Whalley, 2001; Boadway and Sato, 2009; Gordon and Li, 2009). While taxes on consumption are seen as a regressive fiscal device, they are the second-best solution because the "hidden" nature of informal sector activities renders it challenging to directly apply formal sector tax policies. In West Africa, for example, Böhme and Thiele (2014) find that informal enterprises, especially in the trade sector, buy many of their inputs from the formal sector and are thus taxed by virtue of taxes paid on intermediate goods and services higher up the value chain. Therefore, taxes on consumption, like in the case of the Value-Added Tax (VAT), can generate

revenue earlier in the supply chain, even if some retailers fully evade their tax liabilities.

Since the early 1990s, taxes on consumption have replaced trade tax (e.g., import and export duties) as the most important source of indirect tax revenue in most developing countries (see Figure 2.1). The shift is in part due to the role of the International Monetary Fund (IMF) in advising member countries on how to design and "modernize" tax systems through the introduction of general sales taxes, like the VAT (Ebrill, Keen, Bodin and Summers, 2002). Eighty percent of countries in sub-Saharan Africa, for instance, have adopted the VAT, which is now responsible for raising over one-quarter of all tax revenue (Keen, 2013). As a result, revenue from consumption taxes has been the biggest contributor to the public coffers in developing countries, with revenue from income and other tax instruments lagging behind.

Figure 2.1: Average Government Revenue by Category in Low-Income Countries
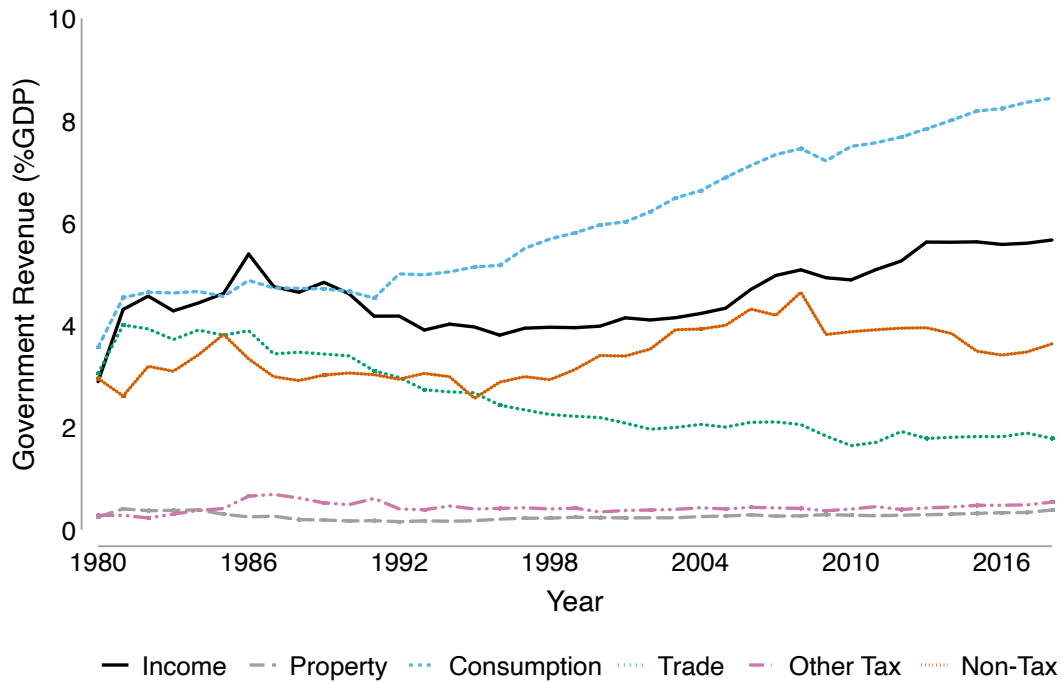
Note: Tax data is from the Government Revenue Dataset, which has 70% more data on developing countries than to the commonly used International Monetary Fund Government Finance Statistics. The dataset is described in detail in Prichard, Cobham and Goodall (2014). The sample excludes members of the Organization of the Petroleum Exporting Countries (OPEC).

The premise for the adoption of broad-based consumption taxes is that informality is a function of various forms of state weakness that limit the government's ability to monitor and enforce rules and regulations, including registration and taxation (Levitsky and Murillo, 2009; Besley and Persson, 2011; Holland, 2016). Implicit in this view is the assumption that the state always tries to enforce the law but fails if its capacity is weak. Veritably, classic definitions of state capacity focus on the government's ability to enforce binding rules and accomplish its intended policy goals (Skocpol and Finegold, 1982; Mann, 1984; Evans, Rueschemeyer and Skocpol, 1985; Johnson and Koyama, 2017; Dincecco, 2017). As such, tax policies that are easy to enforce should take precedence over instruments that require significant administrative and enforcement capacity. Countries with large

informal economies, therefore, are expected to rely more on indirect taxation, such as in the case of consumption taxes, because it allows them to tax a wide range of economic activity (Joshi, Prichard and Heady, 2014). As is evident in the most cursory review of tax revenue data, countries with large informal sectors tend to rely on indirect consumption taxes relative to all other tax instruments (see Figure 2.2). Yet, as illustrated in Figure 2.3, this relationship does not hold in developing countries. The bivariate correlation coefficient between informal sector size and consumption tax as share of total tax revenue is marginal and not statistically significant (Pearson's r = -0.021, p = 0.336), as shown in Figure 2.3b.[4] What explains this inconsistency?

Figure 2.2: Bivariate Correlation between Informal Sector Size and Consumption Tax Revenue

Pearson's r = 0.086, p = 0.000
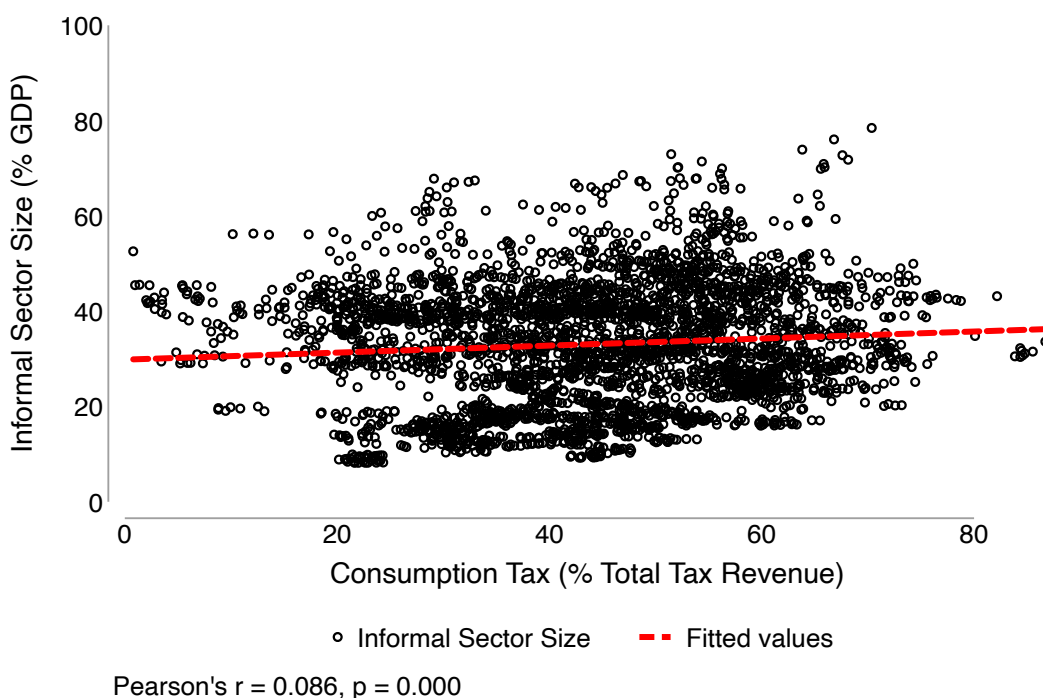
Note: Tax data is from the Government Revenue Dataset. The estimates of informal sector are constructed by Basbay, Elgin and Torul (2016) using the multiple indicators multiple causes (MIMIC) method. Members of the Organization of the Petroleum Exporting Countries (OPEC) are excluded from the analysis.

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[4]The data on informal sector size is estimated by Basbay, Elgin and Torul (2016). While the calculations are similar, this dataset provides more coverage compared to the estimates constructed by Schneider, Buehn and Montenegro (2010). The data used includes unpublished updates from the authors.

Figure 2.3: Bivariate Correlation between Informal Sector Size and Consumption Tax Revenue by Country Income Group

(a) High Income

(b) Low Income
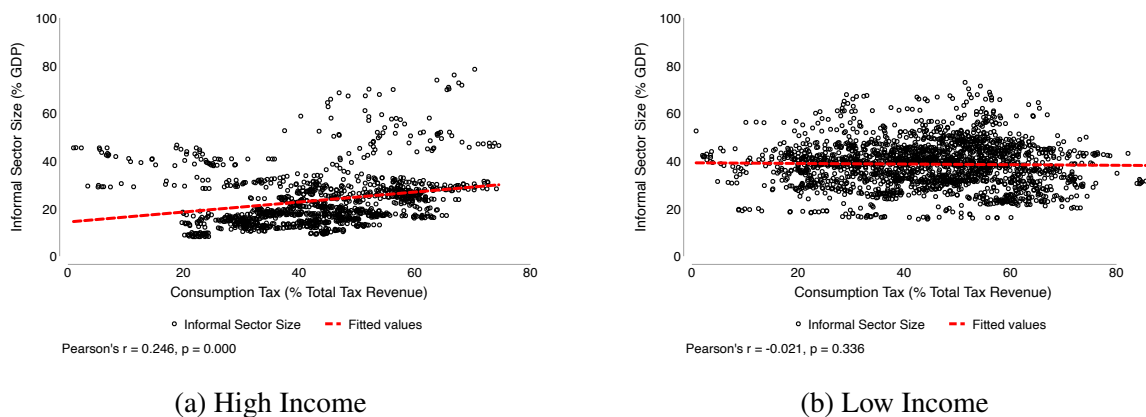
Note: Countries are categorized based on the income classification published by the Organisation for Economic Co-operation and Development (OECD).

While the standard economic approach to taxation treats state capacity as exogenous, there is a large literature that explores the link between politics and fiscal policy making. Models of opportunistic budget cycles predict that politicians seek to secure short-term political support by responding to voter concerns through temporary policy measures like provisional reductions in tax collection. This relationship is expected to be more pronounced in weak institutional environments — as is often the case in developing countries (Drazen, 2000; De Haan and Klomp, 2013). The intuition behind this is straightforward: if voters have limited information or low expectations of future public services delivery, then short-term tax leniency, which offers a more certain benefit to voters, could be an effective strategy to increase popularity and electoral success, even if there are repercussions to long-term state-building and accountability (Taylor-Robinson, 2010; Prichard, 2016). Ethiopia offers a useful illustration, where tax collection fell in the year prior to the reintroduction of competitive elections in 2005. The decline in tax revenue has been attributed to the government's strategy to reduce the intensity of tax enforcement in order to garner political support as there were no significant changes in tax policy (Prichard, 2015). Works on this topic, however, have mostly focused on the effects of political competition on tax collection as a whole (Block, Ferree and Singh,

2003; Prichard, 2016) or tax exemptions targeted at economic elites (Therkildsen, 2012).[5] But the logic of opportunistic political budget cycles can also be applied to the study of informal sector taxation.

In this paper, I contend that the size of the informal sector and political competition jointly impact the tax "mix" (or the combination of instruments that make up tax revenue). As the number of people employed in the informal sector grows, winning their votes can be essential to win elections (see the discussion in, e.g., Taylor-Robinson, 2010; Holland, 2016, 2017). Despite the frequently made argument that informal sector actors are less likely to be collectively organized and to participate in politics because they are socially atomized and relatively lacking in immediate, visible common interests (Baker and Velasco-Guachalla, 2018), examples abound that demonstrate the opposite.[6] Informal economies today are replete with people with varying degrees of skills, resources, and political capacity. These people may organize themselves to influence state action in pursuit of their own interests. In some cases, organized informal actors exert influence on the state through formal channels, such as in the case of street vendors' associations in Malawi. Following the elections in 1994, groups of vendors marched in protest of the policy of persecuting street vendors, which the vendors felt to be an infringement of their right to trade and inconsistent to what the president had promised during the pre-election campaign (Jimu, 2010). Through self-organization, the leaders of the associations were able to compel state and local governments to grant them privileges that were, in the formal sense, only available to the city council, such as the "power" to allocate vending spaces and generate rents (Jimu, 2003).[7] In exchange, the chairperson of the street vendors' association took on the role as the area chairperson of the ruling party. In an interview with a vendor, for instance, Jimu (2010, p. 106) finds that the vendor was "forced to attend political party meetings or risk a two-week ban."

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[5]Outside of the political budget cycles literature, Holland (2016, 2017) demonstrates that politicians derive political benefits by not enforcing laws against poor citizens in informal work and housing.

[6]Rapid economic informalization, combined with political liberalization and the rise of civil society, has produced new perspectives on the politics of informality in developing countries, as represented in contemporary research on Africa (e.g., Tripp, 2001; Meagher, 2010; Bodea and LeBas, 2016; Gottlieb, LeBas and Magat, 2021), Latin America (e.g., Cross, 1998; Holland, 2016, 2017; Hummel, 2017) and Asia (e.g., De Neve, 2005; Agarwala, 2013).

[7]The right to trade in the streets was revoked in 2006.

Similarly, informal waste pickers' cooperatives gained recognition as agents of municipal waste management systems through legal proceedings initiated against the city council of Bogota and the municipal governments of Cali and Popayan (Rosaldo, 2019). Through the judicial rulings by the Colombian Constitutional Court, every municipal government was obligated to ensure that waste pickers are included in the waste sector as self-employed entrepreneurs (Calderon Marquez, Silva de Souza Lima Cano and Rutkowski, 2021). One of the judicial sentences granted waste pickers customary rights to access, sort, and recycle reclaimable materials, as well as suspended the tender for a waste management contract to give cooperatives enough time to organize themselves and bid for the concessions that are normally distributed to formal firms (Fernández and Chen, 2015). Additionally, following the confirmation of the first COVID-19 cases in Colombia, waste pickers' cooperatives organized a forum with stakeholders from the national government to compel the state to recognize recycling as an essential service (Parra, 2020). Through the forum, waste pickers' organizations received accreditation that allowed them to work for limited hours, even during the lockdown (Abizaid and Parra, 2020). This example shows that informal sector actors can and do organize, as well as interact with the state, to protect their interests.

In other cases, organized informal actors have informal but influential links to political elites. For instance, the Mouride Islamic brotherhood, a religious group established in the nineteenth century, has dominated the informal sector in Senegal and has developed an extensive global informal trading network in West Africa, Europe, and the United States through clientelistic relations and collusion with the Senegalese government (Brown and Lyons, 2010). The Mouride-owned Keur Signe Bi (KSB) case provides a good illustration. The KSB, located in Dakar and Touba, is the largest informal market for medicines, which include locally-produced counterfeit products, in Senegal. In 2009, the formal sector pharmacies, in response to recurrent thefts and subsequent violence, attempted to pressure the government to close KSB by going on strike. While they were eventually successful and the government closed KSB, the caliph of Touba publicly disavowed the decision. The opposition resulted in the tacit acquiescence of the government, whereby the implementation of the closure order ceased (Benjamin and Mbaye, 2012).

Leaders of market women's associations in West Africa have likewise wielded political influence on governance of the informal marketplaces, and are able to reverse government decisions related to trade and taxation (Prag, 2010; Grossman, 2020). The case of the Iyaloja-General of Lagos is an example of this kind of association. The Iyaloja-General, Mrs. Folashade Tinubu-Ojo, is the daughter of the political godfather of Lagos, Nigeria. She is the head of the Lagos Market Women and Men Association (LMWMA), the state-level structure that represents all marketplace associations (MPAs) in the state. In the recent years, the Iyaloja-General and the LMWMA have collected taxes from market vendors on behalf of the state and local governments (LeBas, 2013). In exchange, marketplace associations leverage promises of tax compliance to receive infrastructure and other state benefits. The choice of the LMWMA to collaborate with the state is in part due to the Iyaloja-General's desire to preserve the MPA-controlled pathway to formalization (Gottlieb, LeBas and Magat, 2021). Additionally, the LMWMA and many of its constituent MPAs play a vital role in the ruling party's clientelistic relations as they are able to mobilize their members and deliver votes. In fact, as Nwankwo (2019, p. 66) finds, the Iyaloja-General often bestows the market-level iyaloja positions to female traders who can coordinate political support for the party. Not infrequently, organized informal actors combine and use multiple modes of engagement with the state to secure inclusion in formal and informal processes of governance. The lack of attention to the political dimensions of informality thus obscures the realities of how the interaction of informal actors with the state shapes taxation.

The state is not bound to just one form of action either. Instead, tensions may arise or alliances may be formed between the state and the informal sector. On the one hand, the state may opt to use restrictive measures and frontal aggression towards the informal sector. In many countries in the Global South, government officials and the police frequently harass informal vendors and threaten them with eviction. In the Philippines, for instance, government-sanctioned closure and violent demolition of informal shops are prevalent (Bonnin, 2004). Lindell (2008), in conversations with vendors in Mozambique, finds that the state repeatedly subjects informal vendors to physical violence and extortion. These forceful interventions are often framed as public welfare service to

protect consumers against unsafe and unsanitary informal establishments, or as a penalty against tax evasion (Palatino, 2015). Even where the regulatory capacity of the state is weak, the state shows its influence through the arbitrariness of its practices. Holland (2016, 2017) demonstrates that the state may suspend the enforcement of laws against informal actors, a strategy she calls forbearance, while Kamete and Lindell (2010) show cases wherein the state evoked long-forgotten regulations to justify an eviction. Through the arbitrariness of its interventions, the state fosters a sense of uncertainty and renders itself unreadable to the informal sector that it is difficult for informal actors to organize and consolidate their linkages to political elites (Lindell, 2010).

On the other hand, state actors may draw the informal sector into clientelistic networks by co-opting associations or even creating new ones, as described above in Malawi and Nigeria (Meagher, 2011, 2014; Hummel, 2017). In a study by Gottlieb and LeBas (2021), interventions that primed the punitive capacity (in a non-electoral domain) of marketplace associations have depressed turnout in the subsequent election, especially in markets located in electorally competitive constituencies. The authors' finding highlights the role of organized informal actors as clientelistic brokers and, accordingly, their duty in the clientelistic network of the ruling party. Another example is the case of Madam Chodaton, whose position as leader in the largest market in Benin[8] has been co-opted by political elites through the provision of state benefits (i.e., influence in tax issues) to her and her group in exchange for political support (Prag, 2010). In the context of multiparty politics, many politicians have come to regard the growing informal sector as a sphere of intense political competition (Gay, 2006). By nurturing clientelistic relations with organized informal actors, individual politicians gain access to the large 'vote bank' that the growing number of informal workers represents (Mitlin, 2014). As a result, the different modalities of power used by the state are often deployed selectively upon particular groups in the informal sector (Lindell, 2010).

The varied and complex relations between the state and the informal sector affirm the position of the informal sector as political actors. As such, the logic of political budget cycles dictate that it can

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[8]By national and regional standards, the Dantokpa market in Benin is huge. It covers 18.7 hectares of land and is the economic center of the country. More than 400,000 people come to the Dantokpa market everyday. The market has over 22,000 traders registered with the market association as well as approximately 8,000 unregistered hawkers (Prag, 2010).

be politically rational to target the benefits of short-term tax leniency towards politically influential groups in the informal sector. Several examples support this claim. First, in preparation for the upcoming 2022 elections in the Philippines, one mayor gave instructions to halt the enforcement of the new legislation that allows local and council officials to collect direct taxes from informal firms. In a conversation with a politician in charge of drafting the tax reform, she reported that, despite the objections of local council leaders, whose budgets heavily rely on fees and taxes collected from informal firms, the mayor is reluctant to implement the tax reform because of its implications on his re-election bid.[9] She stated that the large number of informal firms represent an important source of votes and surmised that enforcement will resume after the elections. Second, in a field experiment by Gottlieb, LeBas and Magat (2021) in Nigeria, the partner state agency was initially reluctant to emphasize the enforcement-based tax appeals (i.e., non-compliance is subject to fines and jail time), in part due to the policy of the then governor to instead emphasize the benefits of tax compliance on public goods provision.[10] Additionally, while the Lagos State Government has advertisements announcing that informal sector workers will be penalized for not paying their taxes, these ads were rarely shown and hard to find online.[11]

These tax arrangements, however, tend to be in the form of lax enforcement of violations related to direct taxation, such as fines or harassment for failing to register and pay income taxes. This is because the tax burden from formalization is more visible as opting into the formal sector requires payment of income or presumptive taxes. The fact that many informal sector firms already pay formal taxes, like license fees and market dues, make such deals a compelling clientelistic exchange (Olken and Singhal, 2011). But in using short-term tax leniency as a clientelistic exchange, politicians have less resources to deliver targeted benefits to other potentially influential individuals and groups.[12] Paradoxically, governments may in fact prefer to increase indirect tax collection to

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[9]Interview with a Municipal Councilor in the Philippines, November 2021.

[10]Interview with a senior tax agent in charge of informal sector taxation in Lagos, Nigeria, July 2018. It is important to note that the field experiment was implemented several months prior to the gubernatorial elections.

[11]There is also no significant evidence that the state tax authority targets individual vendors for tax payment, although there are some occasions where markets were collectively subject to enforcement (Gottlieb, LeBas and Magat, 2021).

[12]Since direct taxes are often politically salient (Therkildsen, 2012; Hollenbach and Silva, 2018), it may be rational for politicians to extend short-term reductions of direct tax collection towards the elites and formal taxpayers, as well.

accumulate resources to secure political power.

As described above, indirect taxation in the form of consumption taxes is the simplest way to tax the informal sector. Informal sector actors, while not registered as taxpayers themselves, indirectly pay through the taxes paid on goods and services in the value chain. In the tax literature, it has been argued that such broad-based taxes are less visible than direct taxes and many taxpayers are only weakly aware of the extent of their indirect tax burden (Bird and Zolt, 2004).[13] For instance, the consumption tax from each stage of the formal production process is often embedded in the sale price of goods and services. Therefore, even if informal firms evade sales tax imposed on final consumption, they are still indirectly covered by standard tax regimes through taxes paid by formal firms in the value chain (Phillips and Ibaid, 2019). The embedded tax rate also makes it difficult for consumers to ascertain whether the prices are due to markets or tax policies. This means that cuts in direct taxes (which are visible to taxpayers) may be more politically strategic than reductions in indirect taxes.

Therefore, in the context of competitive elections, politicians face strong incentives to adopt short-term fiscal policy measures, such as reductions in informal sector tax collection, as a tool to generate electoral support. This strategy, however, creates additional material and political costs in that it divests politicians of funds to finance expanded public spending. As a result, foregoing enforcement can create additional incentives to increase indirect tax collection. From this discussion, I derive the following testable implications:

Hypothesis 1 *Political competition in countries with large informal sectors weakens tax collection.*

Hypothesis 2 *Political competition in countries with large informal sectors strengthens the state's reliance on indirect taxation.*

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[13]While there has always been considerable popular concern about the equity aspects of consumption taxes, as evidenced by protests and violent demonstrations that accompany the adoption or expansion of value added taxes (VATs) (Bird and Gendron, 2007), changes in tax collection prior to elections reflect changes in enforcement rather than changes in policy, it is reasonable to assume that indirect taxes are likely to be comparatively invisible to taxpayers (Prichard, 2016).

2.3 Research Design

2.3.1 Estimation

To test the hypotheses above, I follow the tax literature and employ a dynamic estimation model of the form:

$$
\begin{aligned}
Tax_{i,t} = {} & \phi Tax_{i,t-1} + \beta_1 Informal\ Sector\ Size_{i,t} + \beta_2 Political\ Competition_{i,t} \\
& + \beta_3 Informal\ Sector\ Size_{i,t} \times Political\ Competition_{i,t} \\
& + X'_{i,t-1}\gamma + \alpha_i + \delta_i + \varepsilon_{i,t}
\end{aligned}
\tag{2.1}
$$

where the dependent variable, Tax, represents tax revenue, $Informal\ Sector\ Size$ is the share of the informal sector in the economy for country i at time t, $Political\ Competition$ indicates whether the election in country i at time t is competitive, and X represents the battery of variables to control for the economic and political characteristics of country i at time $t-1$. α are the country fixed-effects; δ are the year fixed-effects; and ε is the error term. The lagged dependent variable is included to account for the persistence of tax collection over time and any potential mean-reverting dynamics. The country and year fixed-effects are included in the model to focus on within-country variation in tax collection. The fixed-effects estimator, however, is biased when employed alongside a lagged dependent variable because the latter is correlated with the error term (Nickell, 1981). The extent of this bias is likely to be relatively modest given the length of the time series (see discussion in, e.g., Brender and Drazen, 2005). Kropko and Kubinec (2020), however, argue that the two-way fixed-effects model combines over-time and cross-sectional variance, which produces answers that are hard to interpret substantively. As such, all results are reported employing both the fixed-effects estimator and the lagged dependent variable estimator (without the two-way fixed-effects), the latter of which is estimated with clustered standard errors due to the high intraclass correlation between the size of the informal sector and country (ICC = 0.881, $p = 0.000$).

The dependent variable, tax revenue, is taken from the Government Revenue Dataset (GRD), which has 70% more data on developing countries compared to the commonly used International

Monetary Fund (IMF) Government Finance Statistics (Prichard, Cobham and Goodall, 2014). While reductions in tax rates and tax enforcement are theoretically distinct concepts, they are observationally similar. As such, the available data limits my ability to parse out the full range of ways governments use taxation to secure political support.

The independent variable, $Informal\ Sector\ Size$, the share of the informal sector in the economy, is constructed by Basbay, Elgin and Torul (2016) using the multiple indicators multiple causes (MIMIC) method where the output of the informal sector is represented as a latent variable that cannot be measured directly. This data is preferred over the dataset constructed by Schneider, Buehn and Montenegro (2010) because it contains more observations for developing countries. One limitation of using this variable is that it is an estimate of an unobservable economy (due to lack of information). Direct measures of the informal sector, however, are unreliable and not comparable across countries, as well as unavailable for most time periods.

The variable $Political\ Competition$ is constructed from the National Elections Across Democracy and Autocracy (NELDA) dataset. Using this dataset, I created two binary variables that capture the level of electoral competition.[14] The more modest version of political competition takes on a value of 1 if the election is multiparty and includes a legal opposition. This indicator variable is named $Contested\ Election$. The alternative measure is more restrictive and captures the substantive definition of competitiveness. I generate a binary variable that is equal to 1 if the government wins 60% or less of all the seats in the legislature, as coded by the Database of Political Indicators (DPI), and 0 otherwise.[15] This variable is called $Competitive\ Election$.[16]

The model is estimated with the inclusion of a standard set of control variables. The polity score controls for the difficulty of domestic taxation in less democratic settings. The log level of per capita income captures the expectation that the tax share of GDP will be higher where incomes

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[14]I follow Prichard (2016, p. 436) and define the time period over which electorally motivated reductions in tax collection is expected to occur at five months. That is, fiscal effects are likely to be felt in the year prior when elections occur within the first five months of the calendar year. This time period reflects the lag between the tax effects and the election itself.

[15]The substantive definition of competitiveness captures the substantive challenge to a politician's hold on power as measured by the margin of victory.

[16]Countries that never experienced contested multiparty elections are excluded in the sample.

are higher. The share of agriculture in the national economy reflects the greater difficulty of taxing agricultural production, in which a large number of workers are informally employed. The level of imports, which can augment any losses on reduced collection of other indirect taxes impact on tax collection. The level of inflation, which can have a negative impact on tax collection, and per capita growth rate, which has a positive impact on tax collection. All data are taken from the World Development Indicators (WDI) database. The level of non-tax revenue, which is derived from the GRD, is also included to control for additional sources of domestic revenue.

Countries in the sample are low- to middle-income countries for three reasons. First, the rapid expansion of the informal sector over the last twenty years occurred in these contexts. Second, politics in these contexts are highly clientelistic, in part due to the inability of competing parties to make credible promises to citizens (Keefer, 2007; Gottlieb, 2019). The argument that the state and the informal sector can have strategic relations is most relevant in these countries, as weak institutional environments facilitate opportunistic efforts to secure political support (Prichard, 2016). Third, weak states have limited capacity to distribute clientelistic representation and are thus required to choose which actors to bargain with.

2.3.2 Data

Figure 2.4 displays the distribution of informal sector size. Table 2.1 provides the descriptive statistics of the variables of interest. I also show the distribution of the informal sector during election years in Table A.1 (see Appendix A.1). The summary statistics of the variables used as controls and the distribution of the tax variables are reported in Table A.2 and Figure A.1, respectively, in Appendix A.1.

Figure 2.4: Box Plot of Informal Sector Size Across Countries in Different Years
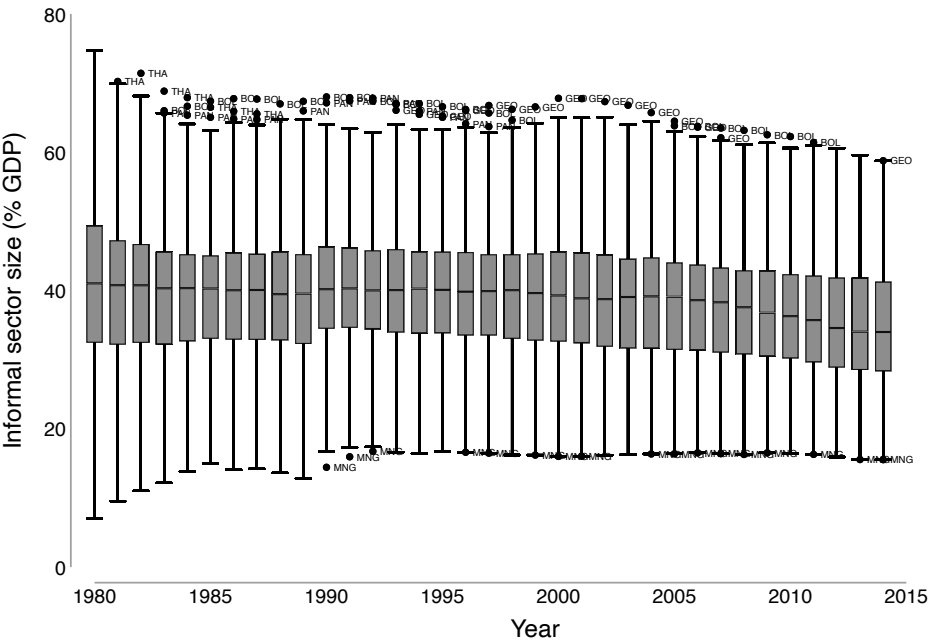
Note: The boxes indicate the lower and upper quartiles of the variable being plotted. The median is represented by a line subdividing the box. The whiskers depict the interquartile range (IQR). Outliers are labeled using ISO country codes. Values are calculated by year.

Table 2.1: Descriptive Statistics of Variables of Interest

		Mean	Std. Dev.	Min	Max	N/n/T-bar
Informal sector size	overall	38.736	10.144	14.43267	72.961	2825
	between		9.5914	16.089	64.787	87
	within		3.458	25.277	56.312	32.471
Contested elections	overall	0.131	0.338	0	1	2677
	between		0.066	0	0.273	87
	within		0.332	-0.142	1.101	30.770
Competitive elections	overall	0.058	0.234	0	1	2677
	between		0.065	0	0.242	87
	within		0.225	-0.184	1.0281	30.770
Total tax (%GDP)	overall	13.573	6.163	0.600	42.177	2761
	between		5.431	5.664	28.986	87
	within		2.967	0.881	39.151	31.736
Consumption tax (% Tax revenue)	overall	44.398	15.698	0.795	87.146	2456
	between		13.545	11.562	78.046	86
	within		9.389	-3.830	73.575	28.558
Indirect tax (% Tax revenue)	overall	66.844	13.599	9.756	101.416	2511
	between		11.602	35.526	85.425	86
	within		8.059	11.602	99.020	29.198
Income tax (% Tax revenue)	overall	30.986	13.229	3.496	88.028	2418
	between		11.521	11.080	62.212	84
	within		7.618	-1.659	70.716	28.786
Direct tax (% Tax revenue)	overall	32.715	13.333	2.359	90.244	2486
	between		11.536	14.475	64.474	84
	within		7.620	5.220	87.946	29.595

Note: The reported standard deviations reveal the variation in each respective variable relative to the previous year and the observed variation within country over time, respectively. For example, if we were to draw two countries randomly from the data, the difference in informal sector size is expected to be a third of the difference for the same country in two randomly selected years. The within number for min and max refers to the deviation from each panel's global average. N is the total number of observations, n is the number of panels (countries), and T-bar is the average number of years under observation.

2.4 Results

The results in Table 2.2 present the regression results where the outcome variable Tax is the total tax revenue as a share of GDP. Moving from left to right, the first three columns report results employing the fixed-effects estimator, while the last three columns report the estimates using the lagged dependent variable model. First, there is no evidence that the size of the informal sector has a negative impact on overall tax collection (see columns (1) and (4)).[17] This is contrary to the expectation in the tax literature that informality is reflective of weak state capacity. The inferences that we derive when we ignore the politics of informality may thus not be reliable, especially where state-citizen relations are highly clientelistic.

Second, I find support for Hypothesis 1: larger informal sectors weaken the incentives of politicians to adopt strong enforcement measures when elections are competitive. The interaction between informal sector size and political competition decreases total tax collection by 1.8 percentage points (if political competition is defined as an election that involves contests for the leader position) and 2 percentage points (if the government wins 60% or less of all the seats in the legislature), respectively (see columns (2) and (3)).[18] This reduction is substantial, amounting to about 0.24% to 0.27% of GDP. Given that the average tax revenue is only 13.57% of GDP, this effect is of substantive importance. These findings provide suggestive evidence to support the claim that many politicians enter into clientelistic relations with the informal sector in order to secure political support. Since informal sector workers are usually excluded from programmatic public service provision, they may be more vulnerable to being influenced by short-term policy shifts. Given their low expectations of benefiting from state largesse, they may be more inclined to vote for politicians who deliver clientelistic goods during election cycles because the benefits are more certain.

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[17]This finding is robust to the inclusion of elections as a control variable (see Table A.3 in Appendix A.2).

[18]These coefficients indicate the difference in slope between non-competitive and competitive groups. The LDV estimators are similar in magnitude. See Figure A.2 in Appendix A.2 for the marginal effects plots.

Table 2.2: Effect of Informal Sector Size and Political Competition on Total Tax Revenue

	Fixed-effects			LDV		
	(1) No Interaction	(2) Contested Elections	(3) Competitive Elections	(4) No Interaction	(5) Contested Elections	(6) Competitive Elections
Total tax (T-1)	0.813***	0.814***	0.814***	0.949***	0.948***	0.948***
	(0.022)	(0.022)	(0.022)	(0.010)	(0.011)	(0.010)
Informal sector size	-0.010	-0.005	-0.006	0.005	0.008*	0.007
	(0.040)	(0.040)	(0.040)	(0.005)	(0.005)	(0.005)
Contested=1		0.572			0.559	
		(0.376)			(0.378)	
Competitive=1			0.493			0.593
			(0.426)			(0.363)
Contested=1 × Informal sector size		-0.018**			-0.019**	
		(0.009)			(0.009)	
Competitive=1 × Informal sector size			-0.020*			-0.023**
			(0.011)			(0.009)
Polity score	0.011	0.010	0.012	0.011*	0.011*	0.012**
	(0.009)	(0.009)	(0.009)	(0.006)	(0.006)	(0.006)
Non-tax revenue	1.037	1.065	1.061	-0.592	-0.604	-0.611
	(1.527)	(1.543)	(1.544)	(0.653)	(0.639)	(0.637)
Logged GDP	-0.203	-0.204	-0.192	0.115*	0.124*	0.120*
	(0.456)	(0.457)	(0.457)	(0.063)	(0.063)	(0.063)
Per capita growth	0.003	0.004	0.003	-0.000	0.001	0.000
	(0.013)	(0.013)	(0.013)	(0.011)	(0.011)	(0.011)
Agriculture	-0.004	-0.004	-0.004	-0.002	-0.002	-0.002
	(0.007)	(0.007)	(0.007)	(0.004)	(0.004)	(0.004)
Imports	0.008**	0.008**	0.008**	0.002	0.002	0.002
	(0.004)	(0.004)	(0.004)	(0.003)	(0.003)	(0.003)
Inflation	-0.000	-0.000	-0.000	0.000	0.000	0.000
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Constant	4.606	4.377	4.335	-0.346	-0.511	-0.447
	(5.126)	(5.148)	(5.142)	(0.637)	(0.634)	(0.635)
Observations	1744	1733	1733	1744	1733	1733
Countries	84	84	84	84	84	84
R^2	0.708	0.709	0.709	0.941	0.942	0.942

Note: Standard errors are reported in parentheses. Fixed-effects results are calculated with robust standard errors. Lagged dependent variable (LDV) models are estimated with clustered standard errors. $^*p < 0.10$, $^{**}p < 0.05$, $^{***}p < 0.01$.

To test Hypothesis 2: states use consumption tax to fund public coffers if the informal sector is large and elections are competitive, I estimate Equation (2.1) wherein the dependent variable Tax is operationalized as the share of consumption tax in total tax revenue. Table 2.3 presents the results. The tax literature predicts that as the informal sector expands, the reliance on indirect taxation increases with it. I find no evidence to support this expectation (see columns (1) and (4)). The positive relationship between informal sector size and consumption taxes, however, is supported in settings where elections are competitive. As I discussed above, it is more strategic for politicians to withdraw enforcement of taxes that are more visibly felt by citizens (i.e., through weakened enforcement of formalization). While this strategy may be more effective in targeting informal actors than expanded public spending (i.e., public goods in informal marketplaces), short-term reductions in pre-election tax collection limit the resources available to politicians to target other influential groups in society. As such, they cannot afford to reduce the levels of consumption taxation.

These results also highlight the importance of taking into account the varying capacity for resources and political capacity of groups in the informal sector. The marked economic differentiation that characterizes contemporary informal economies means that taxation does not evenly affect people in the informal sector. As illustrated in the examples above, the differential relations between the state and the informal economy are influenced by the different capacities for collective action among groups of informal actors. As Gottlieb, LeBas and Magat (2021) show, marketplace associations that are embedded in clientelistic networks are more effective in securing benefits for their members, while out-group members are vulnerable to harassment and extortion, as well as powerless to bargain over taxation or service delivery. Given the differential power relations within the informal sector, it is not surprising that politicians commit to short-term cuts in direct taxes and instead rely on the less visible consumption tax to finance public spending.

Table 2.3: Effect of Informal Sector Size and Political Competition on Consumption Tax Collection

	Fixed-effects			LDV		
	(1) No Interaction	(2) Contested Elections	(3) Competitive Elections	(4) No Interaction	(5) Contested Elections	(6) Competitive Elections
Consumption tax (T-1)	0.804***	0.804***	0.804***	0.939***	0.939***	0.939***
	(0.017)	(0.017)	(0.017)	(0.009)	(0.009)	(0.009)
Informal sector size	-0.022	-0.025	-0.027	0.007	0.002	0.003
	(0.113)	(0.115)	(0.114)	(0.015)	(0.017)	(0.017)
Contested=1		-1.789***			-1.373*	
		(0.672)			(0.745)	
Competitive=1			-2.634**			-1.641
			(1.000)			(1.006)
Contested=1 × Informal sector size		0.039**			0.031	
		(0.019)			(0.020)	
Competitive=1 × Informal sector size			0.071***			0.048**
			(0.024)			(0.024)
Polity score	-0.125*	-0.121*	-0.121*	-0.009	-0.007	-0.008
	(0.066)	(0.067)	(0.067)	(0.026)	(0.026)	(0.026)
Non-tax revenue	0.497	0.550	0.502	-7.470***	-7.451***	-7.401***
	(4.317)	(4.334)	(4.339)	(1.935)	(1.950)	(1.953)
Logged GDP	-0.117	-0.085	-0.145	0.483**	0.492**	0.487**
	(1.505)	(1.509)	(1.511)	(0.229)	(0.232)	(0.233)
Per capita growth	-0.015	-0.014	-0.016	0.005	0.005	0.004
	(0.024)	(0.024)	(0.024)	(0.025)	(0.025)	(0.024)
Agriculture	0.015	0.016	0.015	0.014	0.015	0.015
	(0.030)	(0.030)	(0.030)	(0.016)	(0.016)	(0.016)
Imports	-0.038**	-0.039**	-0.039**	-0.003	-0.002	-0.003
	(0.016)	(0.016)	(0.016)	(0.009)	(0.009)	(0.009)
Inflation	0.000	0.000	0.000	0.000	0.000	0.000
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Constant	8.724	8.643	9.206	-0.751	-0.677	-0.670
	(14.347)	(14.419)	(14.424)	(2.039)	(2.083)	(2.085)
Observations	1554	1544	1544	1554	1544	1544
Countries	83	83	83	83	83	83
R^2	0.745	0.745	0.745	0.911	0.911	0.911

Note: Standard errors are reported in parentheses. Fixed-effects results are calculated with robust standard errors. Lagged dependent variable (LDV) models are estimated with clustered standard errors. $^*p < 0.10$, $^{**}p < 0.05$, $^{***}p < 0.01$.

Overall, the findings in this study are consistent with the view that politicians in weak states have strong incentives to adopt short-term fiscal policy measures in order to generate more political support. First, I show that a large informal sector does not fully explain the low levels of tax collection and reliance on indirect taxation in developing countries. Second, the effect of informal sector size on taxation is conditioned by the level of political competition. In settings with high rates of economic informality, political competition creates opportunities for clientelistic bargaining, whereby politicians deliver short-term tax leniency to the informal sector in exchange for electoral support. Paradoxically, this arrangement increases the reliance on generally regressive tax instruments, like consumption taxes.

2.5 Conclusion

In this paper, I find no consistent and statistically significant evidence that the informal sector has led to reduced tax collection in developing countries. Instead, the results in this study reveal a joint effect of informal sector size and political competition on taxation. By extending the models of opportunistic budget cycles, I find that tax collection declines in the year prior to elections when economic informality is high and elections are competitive. This reduction is substantial, amounting to about 0.24% to 0.27% of GDP. Paradoxically, this reduction is accompanied by increased reliance on regressive indirect taxation.

The findings in this study reveal a number of blind spots in our understanding of informal sector taxation. The first relates to the lack of attention to the political strategies employed by groups of informal actors to address threats to their livelihood by the state. The lack of attention to the political dynamics between the state and the informal sector obscures the effects of persistent informality on the different types of tax policies employed by the state. The second involves the generally monolithic view of informal actors, which glosses over differences within the informal sector and the ways in which these differences shape political leverage and linkages to the state. The aggregate-level estimates of informality are ill-equipped to uncover the differential effects of taxation on various groups within the informal sector. The third relates to the notion of the state as a unified and coherent source of power. Informal sector actors, for instance, may be able to escape

national-level taxation but are powerless to bargain over local-level taxation outcomes. As such, political competition in different levels of government may produce different dynamics and, in turn, relations between the informal sector and the state.

Future research should consider not only the differential capacities of informal actors to collectively organize and to engage in tax bargaining with the state, but also the differences in their ability to hold the state accountable in terms of how the tax mix is structured, as well as how resources are spent. Future work should also look into the dynamics of informal sector taxation and its effect on governance and state-building on a sub-national level. A potential study would be the sub-national assessment of differences in application of formal tax enforcement as electoral/partisan competition varies across sub-national units. Lastly, future research should consider the tax incidence of different tax policies in relation to the structure of the informal sector and its linkages with the formal economy. Do politicians have different incentives to tax largely informal production and distribution markets with no linkages with the formal sector compared to highly interlinked formal-informal markets?

3. VARIETIES IN INFORMALITY IN WEAK STATES: EVIDENCE FROM THE

PHILIPPINES

3.1 Introduction

Whether or not the state should induce informal firms to participate in the formal sector is an important question, especially in the developing world where 93% of the world's informally employed reside. Pervasive informality creates a fiscal problem as informal enterprises do not contribute to the tax base. As a result, the formalization of informal sector activities, with taxation as a key ingredient, has received increasing attention in the contemporary literature on taxation and development, as well as in the international development agenda. Efforts to bring informal firms into the formal sector are often based on the view that formalization promotes economic growth, domestic revenue mobilization, and good governance (see discussion in, e.g., Joshi, Prichard and Heady, 2014). Works on this topic, however, have only sought explanations for why individuals and firms operate in the informal instead of the formal sector, portraying the choice as binary. Yet, developing countries often feature different levels of informality across firms in the same economy.

Instead of a dichotomy wherein the informal sector (e.g., unregistered subsistence activities) is an opposition to the formal sector (e.g., registered, tax-paying businesses), informality appears to be a continuum in which firms comply with formal rules and regulations in some regards but not others (Williams, Shahid and Martínez, 2016). For instance, compared to fully informal businesses, some firms are registered and have legal status as a company but are informal for tax purposes. Others have obtained business and tax registration but do not keep formal accounts of sales and lack honest accounting, which is one of the distinctive features of the informal sector (Benjamin and Mbaye, 2012).[1] Large "informal" firms, which are well-known and acknowledged even by government officials in West Africa, for example, by and large, exhibit compliance in terms of

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[1]Large informal firms often do not abide by rules that require them to submit copies of their finances. In fact, according to a World Bank report, some firms in the formal sector (i.e., they pay regular business income taxes) are classified as informal in the sense that they grossly underreport their sales and maintain fraudulent accounts (Benjamin and Mbaye, 2012).

registration, but report only a small fraction of revenues subject to income tax or conceal their activities altogether. What explains varying levels of informality in weak states? In this research, I aim to move beyond the current prevailing conceptualization of formalization as a binary choice to consider alternative factors that may affect the decision to progress along the spectrum from informality to formality. Specifically, I focus on the linkages between the formal and informal sector and their effect on the cost-benefit calculation of being in one level of informality or another. The expansion of markets due to globalization has transformed the informal sector into an important player in a more extensive chain of commodity production and distribution. The informal sector's connection to the formal economy is no longer limited to the typical characterizations of a repository for surplus labor or a supplier of cheap wage goods (Kudva and Beneria, 2005). Multinational firms, for instance, have supported informal production processes by subcontracting many of their activities to firms operating in the informal sector. In addition, in many developing countries, a substantial proportion of formal goods are marketed through informal distribution channels (Böhme and Thiele, 2012; ACNielsen, 2015). These interlinkages affect a firm's decision to move along the spectrum of informality. In particular, I contend that substantial links with the formal sector increase the benefits of compliance with registration, but reduce the gains from voluntary tax compliance, making quasi-formality (i.e., firms register with the state, but do not enter the formal tax system) a more advantageous status for informal enterprises.

Where the formal and informal sector are interlinked, such as through demand linkages, formal firms have incentives to address economic and social issues that provide untapped business opportunities (Pralahad, 2004). Studies on corporate social responsibility (CSR) find that firms take on problems that arise from weak market institutions and poor governance as a means of achieving financial competitiveness and profitability (Lashitew and van Tulder, 2020). In developing countries, it is not uncommon for large formal firms to supply under-provided public goods, such as infrastructure, stable market access, and financing, to informal firms within their value chain. For example, In Morocco, Bank of Africa supports small and medium enterprises through microfinancing. Similarly, Unilever has financed microcredit loans to women entrepreneurs who sell

their goods, creating business opportunities in rural India. A number of irrigation projects in India are funded by government partnerships with different formal firms. These types of CSR initiatives, however, often require participants to have some form of legal status, which is obtained through state registration.[2] Potential dealings with the formal sector, as well as access to growth-promoting services, can thus increase the benefits of registration and should provide an impetus for informal enterprises to formally register their business with the state.

The existing literature, however, shows that the provision of services by non-state actors can undermine the fiscal contract between citizens and the state. According to the fiscal exchange thesis, individuals are more likely to pay taxes and to support the state's right to tax if they benefit from public goods (Levi, 1989; North and Weingast, 1989; Tilly, 1990). As such, the provision of high-quality services by non-state actors should prompt them to question why they should pay taxes to a government that is not providing them with anything in exchange. Some recent work has suggested that non-state provision of services may dampen demand for state services, reduce tax morale, and undermine formal state-building (Bodea and LeBas, 2016; Castañeda, Doyle and Schwartz, 2020; Gottlieb, LeBas and Magat, 2021). Therefore, where formal-informal sector linkages facilitate the provision of services by formal firms, the benefits of taxation are lower, thereby discouraging tax registration.

Moreover, revenue from informal sector taxation is likely to be modest as taxable incomes, and in turn, tax rates, within the sector are low. Additionally, the costs of collection are high, as informal sector taxation means collecting tax from a large number of individual firms, which is administratively demanding and potentially politically unpopular (Keen, 2013). These characteristics of the informal sector render it challenging to directly apply formal sector policies. Where informal businesses are value chain players alongside formal firms, the state has strong incentives to strengthen the enforcement of formal sector taxes and instead cover the informal sector indirectly by taxing goods and services it buys and sells. The reason for this is that while informal firms do not pay income tax in the same way as formal businesses, they nonetheless bear the tax incidence by

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[2]Since the informal sector is often perceived as illegal, as it operates outside state regulations, registration provides some form of legality and protection for formal enterprises.

virtue of taxes paid by formal enterprises on goods and services higher up and lower down the value chain (Joshi, Prichard and Heady, 2014). Tax policies that do not require any active informal sector participation in the tax system bypass many of the challenges associated with high compliance costs and limited capacity to identify and assess tax liability. As such, formal-informal sector linkages lower the cost of non-compliance as weak states adopt more broad-based indirect tax policies, as in the case of the general sales tax.

To examine the role of the formal and informal sector linkages on the level of informality, I implemented a survey experiment in the Philippines. The intervention consisted of an informational treatment that provides details about credit access to 331 owners of traditional trade stores.[3] The experiment varies which actor is providing microcredit loans to small business owners, so that retailers would either read about the program financed by the state (*state* treatment) or by a well-known large formal corporation, PureGold (*formal firm* treatment). In the context of the Philippines, business registration in a national registry (i.e., for legal status) is separate from tax registration.[4] Due to the decentralized system of government that allows sub-national units to levy taxes and fees, permits to operate are also required by the local district (or *barangay*) and the local government where the business is located. Legal status as a company is therefore not a sufficient condition for legal economic activities. Additionally, tax registration is not a sufficient condition for taxation in that only firms with revenue that exceeds the threshold set by the national government are tax liable. Thus, there is a spectrum of firm types, from the most informal (no separate legal entity independent of owner, no permits, not registered with the tax authority) to the most formal (registered, law-abiding, tax-paying). For instance, firms may take steps toward formality by acquiring legal status, but opt out of registering with the local government and the tax office.

If informal firm owners give recognition to non-state actors for providing pro-business services, are they more likely to choose quasi-formality? My findings provide suggestive evidence that

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[3]The target number of respondents is 600. The completion rate, however, is very low. Nonetheless, attrition after assignment to treatment is only 15%, and the rates are similar across the formal firm and state groups.

[4]Reforms pushed by the World Bank and other international donors have moved many countries, especially in sub-Saharan Africa, towards simultaneously registering businesses and obtaining a tax registration. However, in most countries, like Malawi, Senegal, and Pakistan, starting a formal enterprise still involves several steps (Williams, Shahid and Martínez, 2016; Campos, Goldstein and McKenzie, 2018; ILO Small and Medium Enterprises Unit, 2021).

increasing the benefits of formalization, such as through access to credit markets, does encourage informal firms to enter some sort of relationship with the state. First, since credit access is tied to some form of legality as a way to enforce contracts and collect payments, both the state-funded and firm-provided loan program require proof of business registration. While the formal firm group is no less than willing to register than the state group, 72% of unregistered firms in the sample stated their willingness to acquire legal status after reading about microfinancing to support small business owners. This result lends support to the view that formalization is a rational choice where firms formalize if the benefits outweigh the costs. Second, individuals who received information about service provision by a formal firm are less willing to obtain tax registration than those who read about state service provision. Additionally, they are less likely to support taxation to finance public goods, such as roads, education, and healthcare. This is consistent with the expectation that the provision of services by non-state actors weaken support for pro-tax norms and dampen the demand for state service provision.

Together, these findings suggest a potential mechanism that explain varying levels of informality. On the one hand, formal firms have economic incentives to provide services that promote efficiency and growth to informal businesses within their value chain. This specific facet of interdependence increases the benefits of registration as it confers legitimacy to informal enterprises and creates stronger links with the formal sector. On the other hand, the provision of services by formal firms reduces the benefits of formalization, particularly through taxation, as informal firms perceive a broken fiscal contract in that the state is not fulfilling its end of the fiscal exchange. In other words, formal-informal linkages strengthen state legibility but undermine the fiscal contract as informal firms opt to comply with regulations in some regards but not others.

This study makes two important contributions to the existing literature on state-building in weak states. First, I highlight how linkages between the formal and informal sector affect state-building. Unlike social intermediaries, sectarian groups, or rebel movements that fills the gap in service provision left by the state (Sacks, 2012; Cammett and MacLean, 2014; Gottlieb, LeBas and Magat, 2021), formal firms have no aspirations to compete with the state and are thus unlikely to replace it

as a source of authority. Nonetheless, firms still pose a threat to state-building in that, by displacing the state as public service providers, they reduce citizens' willingness to defer to state rules and regulations. Second, formal-informal sector linkages facilitate legibility, an important dimension of state capacity. Legibility, or the extent of systematized information that central states possess about their citizens (Scott, 1998; Bowles, 2020), has been shown to be of import to the development of the state's extractive capacity (Lee and Zhang, 2017). As linkages between the formal and informal sector extend, I find that individuals might seek a formal relationship with the state that allow them to be "seen" and move beyond the perception of illegality. In turn, registration allows the state to monitor previously hidden informal activities, expand the rule of law, and obtain information about the private sector to develop better policies.

My findings also have implications for policymakers undertaking state-building efforts in weak states. Whereas the most popular approach in many countries to bring firms into the formal sector is to introduce one-stop-shops that make it easier to fully formalize, my study suggests that governments can benefit from allowing quasi-formality that allows firms to provide information to the state and get partial benefits, but not to enter into the formal tax systems. By separating the process of business registration from that of tax registration, informal firms may be more inclined to formalize their relationship with the state. Through voluntary compliance with some regulations, citizens extend the state's informational reach, thereby increasing the strength of the state.

Moreover, the results in this paper indicate that states can strengthen the fiscal contract by coordinating with formal firms to effectively manage and utilize service delivery. Some countries including the Philippines, India, and Kenya have already taken concrete actions to co-produce or coordinate service delivery. For instance, the government of India pools various firms' CSR initiatives to finance community-based water projects. In a similar fashion, the Philippine government collaborated with Coca-Cola to provide microfinancing to aid micro- and small retailers amid the global COVID-19 pandemic. In these projects, the state assumes overall responsibility for service provision (and heavily advertises its role) without necessarily producing and delivering services.[5]

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[5]In the aforementioned example in India, the government maintains a website that regularly publishes updates of the water management projects. In the case of the Philippines, the logo of the Department of Trade and Industry is present

These formal partnerships likely improve citizens' perception of the state and give it reputational credit for leveraging external resources. Lastly, since the informal sector is outside the purview of the state regulatory system, it is often excluded from the benefits of security and social protection that the formal sector enjoys. Formalization, at least through registration, facilitates access to some benefits, without the associated cost of entering into the formal tax system.

The downside of this strategy, however, is that it weakens the incentive of the state to invest in fiscal capacity to tax informal sector firms (see discussion in, e.g., Gottlieb, 2019). The notion of firms displacing the public sector as the provider of public goods also gives rise to equity concerns as states are relieved of their duty to redistribute and provide for their disadvantaged citizens. The change from state provision to private access is also economically worrisome in that there is no accountability mechanism other than the market to ensure the production of public services in the long-run. If formal firms no longer find it profitable or incentive compatible to provide services to the informal sector, then the state has to once again take over public service provision. However, given that there was no incentive to invest in state capacity, this scenario perpetuates a vicious cycle wherein the state is unable to provide public goods and citizens exit and refuse to pay their fiscal obligations. Non-state service provision, therefore, can undermine long-term state development and legitimacy.

3.2 The Philippines and its Traditional Trade Stores

The Philippines is an appropriate site for this research for a variety of reasons. Informality in developing countries is more prevalent in certain sectors, like distribution and construction (Williams, Shahid and Martínez, 2016). The Philippines follows the same trend, specifically in the retail sector. The modal distribution channel of consumer goods (e.g., food, beverages, and toiletries) from formal wholesalers and manufacturing corporations in the country is through small household retail businesses called *sari-sari*[6] stores (NielsenIQ, 2014). Sari-sari stores are an integral part of the Philippine economy. They are considered informal as they tend not to be registered

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in all advertisement materials of Coca-Cola's CSR initiative targeting sari-sari store owners affected by COVID.

[6]The word "sari-sari" means variety in Tagalog, one of the national languages in the Philippines.

with state authorities for tax purposes. Yet, large formal firms, such as Nestlé, Unilever, and Phillip Morris, distribute 60-95% of their products through these stores.[7] It is not uncommon for multinational corporations to have sales teams that exclusively deliver goods to sari-sari stores. Firms also advertise their brands through these stores, often providing free merchandise and banners with a store's business name alongside the company logo. Additionally, approximately 50% to 90% of workers in the country depend on the retail trade sector as their main source of income because retailing requires minimal capital and skills (Tolentino, Sibal and Macaranas, 2001). With over 1.1 million sari-sari stores, which account for about 65% to 88% of all retail outlets in the country, 84% of Filipinos buy essential goods from these traditional trade stores (Romo and Digal, 2009; Castillo, 2021). Thus, the informal sector, particularly in relation to retail, is highly salient in politics and the economy.

Sari-sari stores are often patronized by poor Filipinos as they sell repacked items in quantities smaller than available in the formal marketplace (e.g., cigarettes are sold by the stick, shampoo by the sachet, cooking oil by the cup), which are more affordable and convenient. Moreover, lower transportation costs, informal credit line, and personal relations make sari-sari stores more attractive over other market channels (Capistrano, 2005). Sari-sari stores are similar to the "duka" in Kenya, "spaza" in South Africa, "pulperia" in Central America, and, to some extent, "bodega" in New York City. These stores are often family-run and operated from structures attached to houses, and from houses themselves. Sari-sari stores are a constant feature of residential neighborhoods in large urban cities and small rural towns across the Philippines, and vary in size, form, and linkages to the formal sector. Some shops constitute small rooms where vendors serve customers through a window, while others resemble small grocery stores where buyers can walk in and select goods themselves. It is not uncommon to find several stores that directly compete with each other (i.e., sell the same products) within the same short block, and in some instances, stores located side-by-side in adjacent homes (Bonnin, 2004).

In the context of the Philippines, firms can choose which aspects of formality, if any, to obtain

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[7]Traditional trade stores, which are predominantly informal, remain to be one of the leading retailers of consumer goods in the Asia-Pacific region (Nielsen Quarter by Numbers Report Q4 2018).

because it separates the process of business registration from that of tax registration (Figure 3.1). There are three steps towards business registration: (1) registration in a national registry (for legal status); (2) registration in the district level; and (3) registration in the local level. Proof of legal status as a company through business registration is the main form of identification needed to apply to government assistance programs, while a business license from the local government is required to open a business bank account and register land. A business license from the district (or *barangay*, which is the smallest political unit in the country) is necessary to legally operate within a *barangay*. It is also a pre-requisite for the issuance of a business license from the local government. Tax registration, which is an altogether separate process, allows the firm to provide tax invoices to customers, apply for tax refunds, but also requires it to pay national taxes. While firms may be able to escape national taxation (and are thus informal for tax purposes), they may not be exempt from income taxes paid to district and local governments.

The majority of sari-sari store owners in my sample only possess a business license from the district. While registering businesses in a national registry is required before a *barangay* business license can be issued, in practice, many micro- and small enterprises obtain only the latter. There are two main reasons for the inconsistency between the *de jure* requirements and the *de facto* enforcement. First, while the upfront cost of a business registration (for legal status) is not as high for micro- and small enterprises[8], until recently, the process of registration is tedious. Prior to its online application option, a business owner would have to go to a satellite office, which is not easily accessible, especially outside highly urbanized cities like Metro Manila. The transactions cost is the most cited reason for why vendors in my sample opt out of registration. Second, the *barangay* often rely on revenue from fees and taxes collected from registered firms. As such, they are likely to allow business license registration even if the initial requirement of legal status as a company is not met. Moreover, as they are highly dependent on these revenues for their budget, *barangays* have a strong incentive to find non-payers, who can be shut down by the district if they fail to comply. Given that a modal *barangay* is relatively small and sari-sari stores are permanent fixtures, it is

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[8]The cost of business registration in the national registry varies according to the scope of the business: barangay, PhP200 ($4); city or municipality, PhP500 ($10); regional, PhP1,000 ($20); and national, PhP2,000 ($40).

not surprising that many vendors opt to apply for a district business license because their activities, especially from a structure attached to the owner's house (or the house itself), are difficult to hide from the state. The organization of business registration in the Philippines thus enables me to create a five-point scale of the level of informality, ranging from purely informal to purely formal, as shown in Figure 3.1.

Figure 3.1: A Typology of Firm Informality in the Philippines

	Legal status	Business license		Tax registration	Distribution (%)
		District	Local		
Purely informal	x	x	x	x	4.14
High-level informality					
Option 1	✓	x	x	x	3.61
Option 2	x	✓	x	x	60.03
Option 3	x	x	✓	x	3.61
Mid-level informality					
Option 1	✓	✓	x	x	7.89
Option 2	✓	x	✓	x	0.80
Option 3	x	✓	x	✓	0.13
Option 4	x	✓	✓	x	7.35
Low-level informality					
Option 1	✓	✓	✓	x	6.02
Option 2	✓	✓	x	✓	0.27
Option 3	✓	x	✓	✓	0.13
Option 4	x	✓	✓	✓	0.27
Purely formal	✓	✓	✓	✓	5.75

Note: Data collected from a survey of traditional trade stores in the Philippines. As shown in the figure, businesses are required to obtain (1) legal status as a company through registration in a national registry, (2) business license to operate from the district (or *barangay*, the lowest administrative unit of government) and the local government, and (3) tax registration. Firms operating with a low level of informality mostly opt not to formally register with the tax authority, while those with a high level of informality choose only to register their business in the district-level. As such, formalization appears to progress in stages: first, by acquiring a legal status, second, by registering for a business license, and last, by registering with the tax authority.

Furthermore, the decentralized political system in the Philippines allows sub-national governments to have significant autonomy over local taxation and regulation. This means that firms that are not registered for tax purposes (on a national level) are subject to local taxes and fees, as well as

regulations involving registration. This autonomy explains heightened variations in enforcement across district and local government units. The monitoring of sari-sari store registration, for instance, is conducted in an inconsistent manner. There have been periods of government-sanctioned closure and demolition of informal businesses, demonstrating some level of state capacity, but enforcement often taper during election cycles, suggesting politically strategic behavior (Bonnin, 2004). Additionally, one local politician shared that her administration does not enforce informal sector taxation because it is arduous to collect from small businesses as well as politically unpopular.[9] She also noted that they do not enforce national laws regarding the informal sector as a significant portion of their citizens rely on informal commerce and trade. Another politician said that the local government is not strict about sari-sari store permits and taxation, but allows discretion to local districts to collect income tax from sari-sari stores to fund *barangay* coffers due to the dearth of formal firms for which they can generate revenue from.[10] As a result, research in the Philippines affords the opportunity to test whether different types of entrepreneurs prefer different levels of informality, and which groups of people favor quasi-formality.

3.3 Theory

The issue of formalization of the informal sector has received attention in both academic and policy circles in the recent years. From a revenue perspective, formalization represents a potentially significant source of revenue for cash-strapped governments (Schneider, Buehn and Montenegro, 2010). This line of reasoning is also linked to broader governance implications in that even if the revenue gains from informal sector taxation are modest, engaging firms with the state through the process of formalization builds a social norm of voluntary tax compliance that is likely to come hand-in-hand with promoting legitimacy, strong governmental institutions, and political accountability (Joshi and Ayee, 2008; Prichard, 2009; De Mel, McKenzie and Woodruff, 2013). In exchange for voluntary tax compliance, the state needs to meet the increased demand for responsiveness and accountability that stems from the taxpayers' sense of ownership over

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[9]Interview with Mayor on November 2021.
[10]Interview with Municipal Councilor on November 2021.

governance outcomes (Prichard, 2009; Joshi, Prichard and Heady, 2014). The tax-for-services exchange can thus lead to expanded trust in the state, even in settings where entering the tax net does not generate increased firm profitability (De Mel, McKenzie and Woodruff, 2013). Additionally, efforts to collect taxes from the informal sector presents an opportunity for informal sector operators to collectively mobilize in order to strengthen their bargaining position over governance outcomes (Hummel, 2017). Prichard (2009), for example, finds that government efforts to tax informal firms in Ethiopia sparked political engagement which resulted in bargaining over the presumptive tax regime between informal sector businesses and the state.

The implications of formalization for economic growth are as important as the revenue and governance implications. A growing body of research suggests that formalization is a particularly important channel through which firm productivity can be generated (Joshi, Prichard and Heady, 2014). While informal firms may benefit from non-taxation, they are also excluded from certain opportunities available to formal firms, including access to capital markets, new market opportunities, and access to training and capacity building (Loeprick, 2009; McCulloch, Schulze and Voss, 2010; De Mel, McKenzie and Woodruff, 2013). Additionally, the uncertainty of government enforcement is a major disincentive to expansion. Opting into the formal economy, therefore, may bring important benefits that can trigger improved profitability, higher incomes, more investments, and better survival prospects (Fajnzylber, Maloney and Montes-Rojas, 2009; McCulloch, Schulze and Voss, 2010). Moreover, informal practices present a serious obstacle for business activities of formally registered firms (Dube and Casale, 2016). In low-income countries, on average, 61% of formal firms have to compete with informal businesses, compared to only 32% in OECD countries (Kundt, 2017). The formalization of informal sector activities may lead to overall productivity increases, which can ultimately trigger economic growth.

The process of formalization often involves registration in the tax system, for which the individual must also pay income tax liability (De Mel, McKenzie and Woodruff, 2013; Benhassine, McKenzie, Pouliquen and Santini, 2018). Firms are thus categorized as informal if they opt not to formally register with the tax office. The most widespread definition of informality, however,

is centered on the legal status of the business: whether registered and complying with relevant legislation (Joshi, Prichard and Heady, 2014). Therefore, businesses with legal status, regardless of whether they are registered with the tax authorities, are, by definition, within the scope of state regulation.[11] As such, it is possible to create a scale of the level of informality of an informal firm, as I illustrate in Figure 3.1. In settings like Nigeria, for instance, tax registration status is not enough to be considered formal, as other documents, such as trade licenses, health and sanitation permits, and building regulation certificates, have to be obtained as well. Notwithstanding, works in this area have only examined why firms "exit" the formal economy, rather than explaining why enterprises display differing levels of informality.[12]

3.3.1 Shifting Incentives

The dominant strand of existing literature views choices over formalization based on rational cost-benefit analysis: firms will formalize if the benefits of formalization outweigh the costs (De Soto, 1989; Portes, Castells and Benton, 1989; Joshi, Prichard and Heady, 2014). Benefits of formalization include state-provided services and access to credit, while costs include the cost of registration, tax compliance, and other barriers that contribute to transactions costs. Firms will formalize in exchange for substantial benefits like state-subsidized credit services and electricity supply (Ingram, Ramachandran and Desai, 2007; De Mel, McKenzie and Woodruff, 2013; Benhassine et al., 2018). Formalization, specifically through taxation, is also more likely in settings where citizens have had positive experiences with state services provision (Bodea and LeBas, 2016). Therefore, encouraging firms to enter the formal sector depends on the benefits (or costs) of formalization.

In contemporary economies, the benefits of formalization are not only limited to services delivered by the state. The increasingly integrated formal and informal sectors have generated incentives for formal firms to address market failures and poor governance. The existing literature on business management and corporate social responsibility (CSR) finds that formal firms are driven

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[11]Business permits, for example, allow governments to monitor and regulate an industry by making access "traceable, revocable, and dependent on compliance (Hummel, 2017, 1527)."

[12]One notable exception is the study by Williams, Shahid and Martínez (2016), which examines the differing characteristics of entrepreneurs displaying varying levels of informality.

to provide solutions to economic and social problems because of the potential economic rewards (Pralahad, 2004; Lashitew and van Tulder, 2020). By supplying under-provided state services to informal firms within their value chain, the formal sector does not only promote growth and efficiency in the informal sector, but it also increases its own profitability and competitiveness. As a result, the modal economic CSR program of a contemporary formal firm tends to be centered towards providing stable market access, training, and financing to smallholders. For instance, Jollibee Foods Corporation (JFC), one of the largest fast-food chains in the Philippines, has been providing loans and market access to farmers who sell their products to JFC, resulting in higher incomes and improved capital investment for all participants, especially the mostly informal farmers. PureGold, one of the largest wholesale retailers of consumer goods in the Philippines, has a loan program that aims to augment capital through store credits to sari-sari store owners.

Similar to state-provided public goods, the access to formal firm assistance programs is tied to the registration of an informal enterprise. Since the informal sector has been perceived as "illegal" as it operates outside state regulations, some legal status conferred by the appropriate authorities is necessary to apply for business loans and other growth-promoting services. Legitimacy is a form of protection for both formal and informal businesses. Without legal status, enforcing contracts and preventing fraud become very costly. The importance of some form of legality in creating economic opportunities for the informal sector is evident from the infrequent linkages between formal firms and unregistered (i.e., purely informal) enterprises. In West Africa, for instance, unregistered firms tend to work as ambulant traders and street vendors (Böhme and Thiele, 2014). As such, not only does registration increase the benefits of formalization through credit access and other assistance programs, it also creates stable market access through extended links with the formal sector.

In many developing countries, the process of business registration is separate from that of tax registration. Business registration provides the state with information about the existence of a firm, and the firm with a legal status separate from its owner. Meanwhile, tax registration equips the state with knowledge about its tax base, and the firm with access to tax refunds and government procurement systems (Campos, Goldstein and McKenzie, 2018). This separation of registrations

enables me to test how state service provision affects the level of informality. Specifically, based on the discussion above, if access to public goods requires some form of legal status, then both state and private service provision should increase business registration. I thus state the following hypotheses:

Hypothesis 1 *Information about service provision will increase the willingness to obtain a business registration if the provider is the state.*

Hypothesis 2 *Information about service provision will increase the willingness to obtain a business registration if the provider is the formal firm.*

3.3.2   State and Firms: Competing Service Providers?

While formal firms tend to provide services that promote the efficiency and inclusion of the informal sector in the value chain, they do not have aspirations to compete with the state as a source of authority. Unlike criminal gangs, rebel movements, community groups, and sectarian organizations that tend to extract resources, deliver services that the state is not providing its citizens, and engage in direct confrontation with the state (Mampilly, 2012; Cammett and MacLean, 2014; Barnes, 2017), formal firms do not often play state-like governance roles and are thus not likely to be perceived by citizens as direct state competitors. The intensity of a formal firm's economic, social, and political activities within a country is, in fact, dependent on the level of integration with the informal sector (Pisani, Kourula, Kolk and Meijer, 2017). Where the formal and informal sector are interdependent, formal firms are often motivated by the rationale of advancing competitiveness and profitability, rather than motives of becoming a substitute for the state (Lashitew and van Tulder, 2020). Taking on the task of addressing problems from institutional and market weaknesses is thus a means for formal firms to maximize their profits. Formal firms are potentially effective in delivering under-provided state services because of their ability to invest sizeable resources, as well as their capacity to commit stable market access. By providing opportunities for growth and insurance against risks of production to smallholders, like informal firms, formal enterprises can

generate substantial profit margins, as in the case of JFC's Farmer Entrepreneurship Program. But what does the presence of alternative service providers mean for formalization?

On the one hand, access to privately provided services tend to be tied to some form of legality. As discussed above, purely informal firms rarely have linkages with the formal sector. Therefore, the effect of non-state service provision on formalization is through the increased benefits of registration. On the other hand, non-state service provision can undermine the fiscal contract between the state and its citizens. According to the logic of fiscal exchange (Bates and Lien, 1985; Levi, 1989; Alm, Jackson and McKee, 1993), citizens are more willing to defer to government rules and regulations, such as through voluntary tax compliance, when they expect to directly benefit from the state through the provision of public goods and services. Based on this logic, the major obstacles to expanding the tax net arise from the direct costs of registration, uncertainty about the tax burden from entering the tax system, and insufficient benefits of compliance (see the discussion in, e.g., Bruhn and McKenzie, 2014; Benhassine et al., 2018). As such, while tax compliance may be shaped by norms and mutual expectations, it is primarily driven by the economic exchange between the state and its citizens. Therefore, non-state service provision can undermine the fiscal contract by prompting citizens to question why they should pay taxes to a government that is not upholding its end of the bargain (Sacks, 2012). Research in this area suggests that non-state service providers crowd out the demand for formal state services, as well as weaken support for taxation (Bodea and LeBas, 2016).

The contrasting effects of non-state service provision on the expectations of benefits from formalization make it difficult to predict whether provision of pro-growth services encourages informal firms to enter the formal sector. More importantly, research on non-state actors have mostly focused on groups that organize collective action to fill the void of an absent or predatory state. The role of the formal sector has thus far been ignored, although the literature on CSR detail the many ways firms address the gaps from poor governance. Additionally, the bundling of registration for legal status and tax registration in policy interventions and scholarly work have shown mixed evidence for decreasing the individual costs or increasing other expected benefits to

encourage formalization and tax compliance (Bruhn and McKenzie, 2014). In Brazil, De Andrade, Bruhn and McKenzie (2016) find that interventions providing information about or cover the cost of registration have no impact on registration under a one-stop-shop for municipal, state, and federal taxes. In Benin, Benhassine et al. (2018) find limited effects of registration assistance on national tax registration. In Sri Lanka, De Mel, McKenzie and Woodruff (2013) find that providing technical support and subsidizing registration have no effect on tax registration, although they find that firms are willing to register for tax purposes when offered money. These findings, coupled with the observation that firms often display different levels of informality, supports the separation of the various registrations to isolate the effect of increasing expected benefits of formalization on informality. Moreover, as aforementioned, the Philippines is the ideal case to test the competing effects of non-state service provision on different formalization outcomes. As established in the discussion above, access to privately provided services increases the benefits of registration. However, by displacing the public sector as a source of public goods, formal firms can undermine the fiscal exchange. These observations yield the following hypotheses:

Hypothesis 3 *Information about service provision will decrease the willingness to obtain tax registration if the provider is the formal firm.*

Hypothesis 4 *Information about service provision will decrease tax morale if the provider is the formal firm.*

Hypothesis 5 *Information about service provision will decrease support for taxation if the provider is the formal firm.*

3.4 Study Design

To test my hypotheses, I conducted an online survey with sari-sari store owners in the Philippines.[13] The research design of this study entails an informational intervention that increases the expected benefits from registration and tax compliance. According to Joshi, Prichard and Heady

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[13]The Facebook advertisement campaign ran from December 26, 2021 until January 4, 2022.

(2014), an informational intervention is sufficient in settings in which a large number of intended beneficiaries are unaware of the programs targeted at them. Given the inconsistent implementation of programs directed towards micro- and small entrepreneurs, like sari-sari store owners, this experimental design is applicable to the Philippine context. Additionally, the informational intervention is weaker than providing actual business loans and thus biases against finding support for the hypotheses presented above.

3.4.1 Sample

I recruited 331 participants from the social media network Facebook by first creating a Facebook page for the survey.[14] I then used Facebook advertisements to create a promotional campaign. The advertisement (which was translated in Tagalog) in Figure 3.2 was delivered to random Facebook users in the Philippines aged 18 years and older. Respondents who clicked on the Facebook ad were redirected to the survey hosted on Qualtrics. Upon survey completion, respondents were compensated with PhP100 ($2) in cellphone credits or mobile cash. This amount is marginal and is unlikely to influence participant behavior.[15] The survey took approximately 20 minutes to complete.[16]

The use of Facebook as a recruitment method has been used across different contexts (see, e.g., Rosenzweig, Bergquist, Pham, Rampazzo and Mildenberger, 2020; Zhang, Mildenberger, Howe, Marlon, Rosenthal and Leiserowitz, 2020), and is the most appropriate in the Philippine context. First, telephone interviews are infeasible due to the lack of a reliable sampling frame from which to select individuals for this study. Second, online survey platforms that offer a pre-arranged pool of respondents, like Qualtrics and Amazon MTurk, do not operate in the Philippines. Third,

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[14]While target number of respondents is 600, only 338 were assigned to treatment. Attrition after assignment to treatment is 17%, and the rates are similar across the formal firm and state groups. With an effect size of 7.6%, which is the treatment effect in a similar informational treatment by Benhassine et al. (2018), and a level of business registration of 2%, I need a total of 106 participants to detect an effect of treatment on the outcome variable with a standard level of power of 0.8 and statistical significance of 0.5.)

[15]Comments on the Facebook post, however, indicated that some viewers mistook the survey for an NGO that provides capital to start a sari-sari store. I replied to these posts to clarify that the survey is only a study to identify characteristics of sari-sari stores in the Philippines.

[16]I received approval from the Texas A&M Review Board before conducting the experiment (IRB No. 130725, Approval Date: 11/23/2021). This study is pre-registered and the Pre-Analysis Plan (PAP) is submitted to the EGAP registry.

given the high number of COVID-19 cases and movement restrictions in the Philippines, face-to-face recruitment is not only infeasible, it is also extremely risky for both enumerators and survey participants. The Philippines has high social media penetration (i.e., 71% versus the global average of 45%), and of the 68% of the population with access to the internet, nearly 100% has a Facebook account. The platform thus allows for the participation of a significant portion of the population, which is a usual limitation of online surveys in many developing countries. Additionally, the social networking site provides free internet connection to Facebook on mobile devices in the country, which means practically anyone, regardless of socioeconomic status, can access it (Swearingen, 2018). The wide reach of Facebook in the Philippines has important implications for external validity in that it indicates that a larger share of the population is included in the sample frame (Rosenzweig et al., 2020).

Figure 3.2: Facebook Advertisement for Business Survey

Note: The advertisement was translated into Tagalog, the national language of the Philippines, prior to the distribution of the ad. The following text, which was included in the post, was also translated. "Are you a sari-sari store owner? Do you have 20 minutes? Take our business survey! Help us understand your business and how the Philippine economy affects your store. Share your insights and have cellphone credits on us!"

3.4.2 Outcomes of Interest

3.4.2.1 *Willingness to Formalize*

As discussed in Section 3.2 and as can be seen in Figure 3.1, informality in the Philippines is not binary. The separation of registrations means that firms can choose which regulations to comply with. Theoretically, each subsequent state registration is a "higher" level of formalization because it requires documentation from the previous steps. For example, a business registration in a national registry is a pre-requisite for obtaining business licenses at the sub-national level. In practice, however, authorities exercise discretion and sometimes allow firms to bypass requirements. Nonetheless, the separation of these processes allows me to test whether the treatment affects different steps toward formality.

To measure willingness to formalize, I asked the questions "How likely or unlikely are you to apply for a (business registration/district business license/local business license/tax registration)". If the individual reported that she has a pre-existing permit, the observation is coded as missing. For example, the observation for Q9.1 in the survey instrument in Appendix B.1 will be a missing value if the respondent reported that she has a permit from the Department of Trade and Industry (business registration in a national registry).[17] I constructed indicator variables that take the value of 1 to denote willingness to formalize at each level, as well as generated an index with the four constituent survey questions. I also created an index that combines responses about the district and local business permits. While the disaggregated measures are used to shed light on the mechanisms, the joint measure is also reported to assess whether there is a treatment effect.[18]

3.4.2.2 *Tax Morale*

Tax morale is constructed using the "citizens should always pay tax even if they disagree with the government" / "citizens should only pay tax if they agree with the government" measure used in Bodea and LeBas (2016).

3.4.2.3 *Support for Taxation*

I asked a battery of questions that probe willingness to pay taxes in exchange for public goods. The questions were asked before the treatment as a measure of the latent demand for fiscal exchange, as well as post-treatment to assess whether there is a treatment effect.

3.4.3 Pre-Treatment Informality

As discussed above, formalization in the Philippines is done in steps. To take into account "quasi-formal" registration, I asked respondents to indicate whether they are registered in a national registry (Department of Trade and Industry), their *barangay*, city or municipality, and with the tax authority. Fully formalized sari-sari store owners (has (1) business registration in a national registry,

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[17]Individuals, however, were asked if they could go back in time, would they have had gotten the permit. I do err on the conservative side and excluded responses from registered participants.

[18]The risk of people being afraid of punishment and lying is very low as enforcement in the Philippines is generally weak. While there are instances where the government cracks down on unregistered firms, they tend to happen in highly urbanized areas.

(2) district business license, (3) local business license, and (4) tax registration) were excluded from the study.[19] Apart from constructing indicator variables for each level of formalization, I also generated a categorical variable that follows the categories in Figure 3.1. The modal sari-sari store owner has a high level of informality (i.e., firm is registered as a legal entity separate from its owner or has a business license from the *barangay*), as illustrated in Figure 3.3.

Figure 3.3: Distribution of Informality Levels
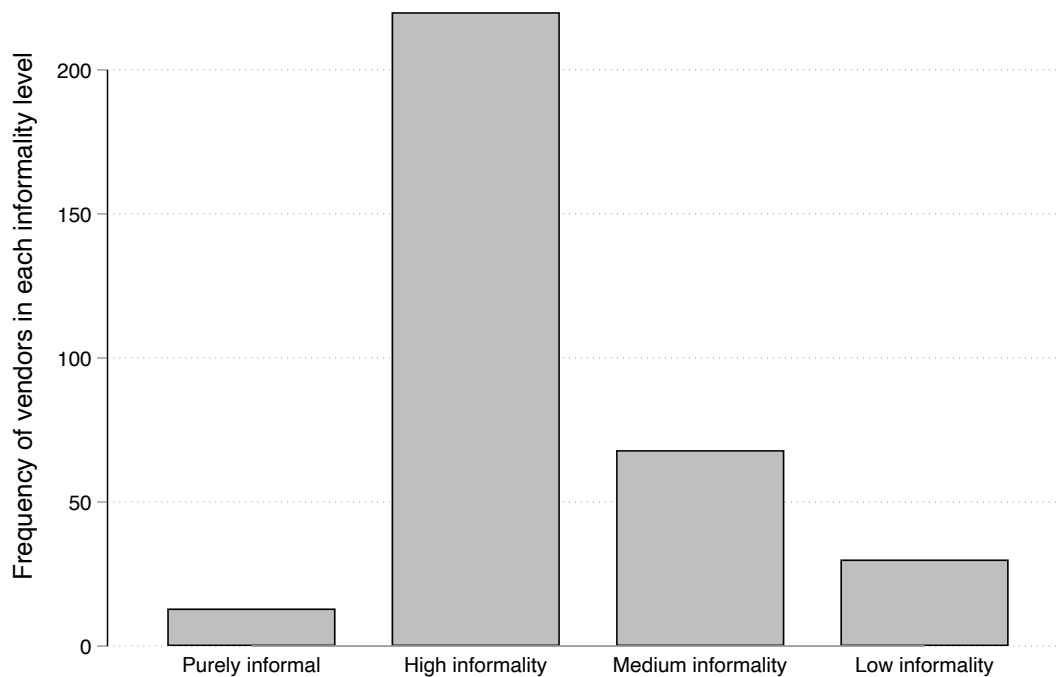
3.4.4 The Intervention

I designed an informational intervention that is intended to increase the likelihood of updating perceived benefits of registration. The intervention, as shown in Figure 3.4, varied the actor providing public goods (state vs. formal firm. The treatment is randomly assigned at the individual level, where half of the sample is provided information about a credit loan program financed by

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[19]Only 42 respondents were fully formalized.

the national government ($N = 193$). The remaining half received information about a similar loan program that is funded by a formal firm ($N = 195$).[20] The intervention consisted of infographics (Figures 3.4a and 3.4b) and text that primed the actor and the source of funds (tax revenue vs. profits). 83% of respondents assigned to the treatment conditions completed the survey.[21]

The experimental design enables me to disentangle the effect of non-state service provision on different levels of formalization. Additionally, the research design circumvents some of the inferential problems of observational research. If we only rely on observational data, assigning causality to any correlate of formalization is problematic because the types of people who formalize differ on a number of dimensions from those who do not. For example, an individual may register for a business license at the local level because it is difficult to hide her activities from the state, or because she has linkages with the formal sector and thus likely to receive returns on her investment, or because the state is predatory and she cannot evade enforcement.

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[20]Sample size limitations preclude me from including a pure control.

[21]The rest of the participants discontinued the survey after receipt of the intervention.

Figure 3.4: Informational Intervention
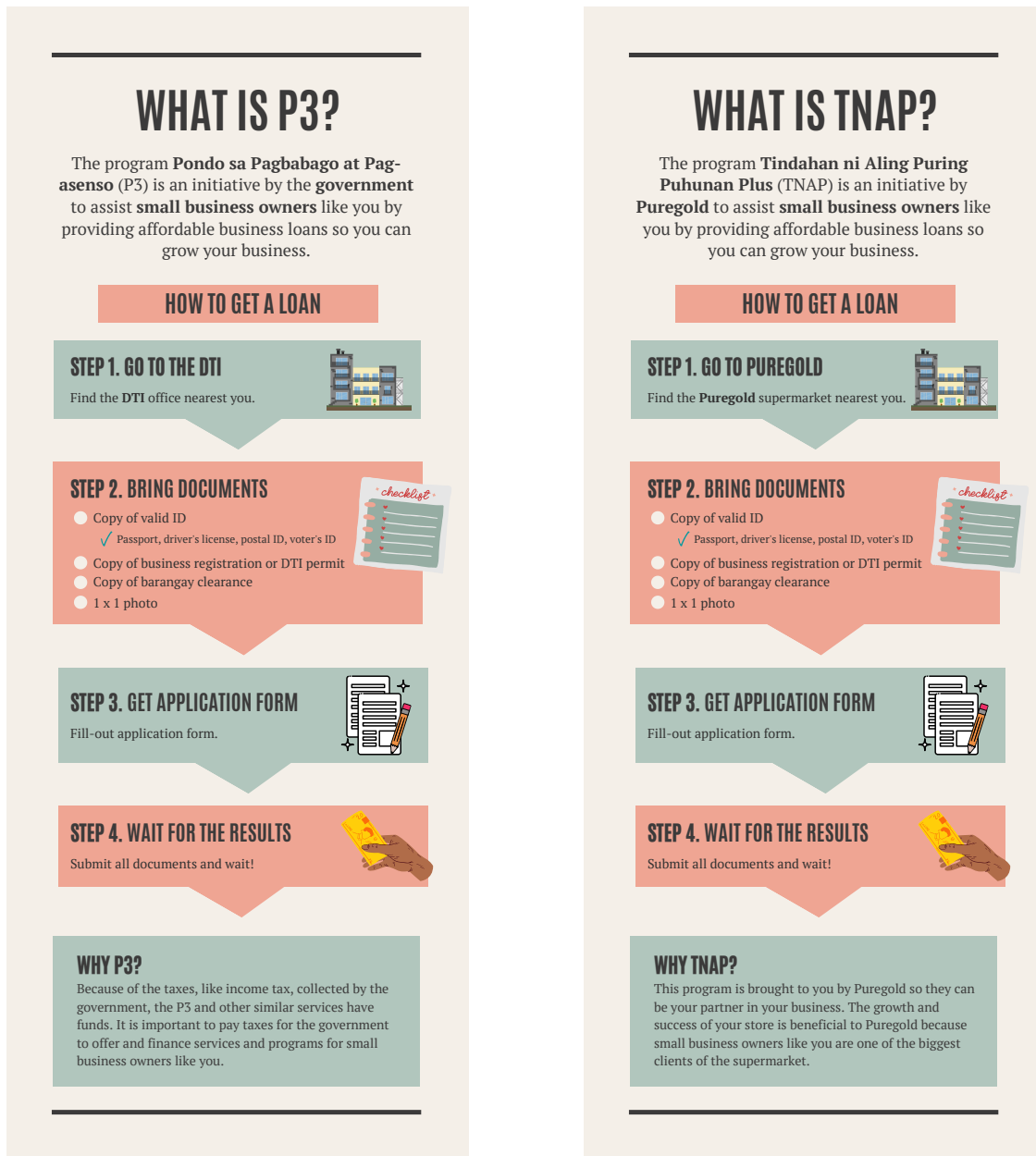
(a) State Treatment

(b) Formal Firm Treatment

Note: When the assigned infographics was presented to the respondent, it was accompanied by a text summarizing the program. The text is as follows: "Sari-sari store owners like you may need additional credit because of COVID-19 and other economic difficulties. Please read the following information about a business loan program allows small business owners like you to borrow capital at a low-interest rate and no collateral requirement. *This business loan program is funded by taxes paid to the government / This business loan program is funded by the profits earned by the privately-owned corporation, Puregold.*"

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3.4.5 Estimation

Given the random assignment of the treatment, we can calculate the intent-to-treat estimate β_1 of assignment to treatment on the outcome of interest by evaluating the following model using OLS with robust standard errors (Judkins and Porter, 2016):

$$Y_i = \alpha + \beta_1 Treatment_i + \varepsilon_i \qquad (3.1)$$

where Y_i is the outcome of interest for individual i, $Treatment_i$ is an indicator of whether individual i received the state or the formal firm provider information, and ε_i is the unobserved heterogeneity. β_1 is the average effect of the treatment on the outcome of interest.

3.5 Data

The key outcomes of interest are measured using data from the survey experiment I conducted between December 2021 and January 2022. As discussed above, I measure willingness to formalize by asking respondents to evaluate their likelihood of registration. There are four options, based on a four-point Likert item ranging from "very unlikely (1)" to "very likely (4)". For ease of interpretation, I created indicator variables that is equal to 1 if the respondent is likely to register and 0 otherwise. Of the 331 participants, 74% reported their willingness to register in a national registry, 85% in their barangay, 75% in their city or municipality, and 71% said they are willing to register for tax purposes.[22]

I also constructed an index that combines the four constituent survey questions, as well as indices that combines "low" formalization (i.e., cheaper and easier to obtain permits) and "high" formalization, respectively. The mean likelihood of formalization is 2.84, while low formalization (business registration or district license) has a mean of 2.85. High formalization (local license or tax registration) has a mean value of 2.81. Other outcomes of formalization, specifically tax morale and support for taxation have mean values of 2.96 and 3.09, respectively.

The modal sari-sari store owner is not purely informal. In the sample, 89% of respondents

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[22]I report the results for both binary and ordinal outcomes.

report that they have a *barangay* business license, compared to 25% with a business registration from the Department of Trade and Industry (DTI), 19% with a city or municipality business license, and 1% with tax registration. The prevalence of this form of partial formality is not surprising. In most places in the Philippines, especially in the rural areas, the *barangays* are small and social networks are dense. In addition, due to the nature of sari-sari stores, where activities are often conducted in structures attached to the house of the owner, entrepreneurs are susceptible to state enforcement. *Barangays* also have strong incentives to enforce compliance because they are often highly dependent on revenue from fees and taxes collected from micro- and small enterprises.

Table 3.1 shows that the random assignment yielded a balanced sample, with no significant differences between the formal firm and state groups.

Table 3.1: Descriptive Statistics by Treatment Status

Variable	(1) Control	(2) Treatment	(3) Difference	(4) Observations
Business Registration	0.259	0.237	-0.023	331
	(0.440)	(0.426)	(0.048)	
District Business License	0.889	0.899	0.011	331
	(0.315)	(0.302)	(0.034)	
Local Business License	0.167	0.219	0.052	331
	(0.374)	(0.415)	(0.043)	
Tax Registration	0.012	0.012	-0.001	331
	(0.111)	(0.108)	(0.012)	
Birth Year	40.895	41.988	1.093	331
	(9.569)	(9.564)	(1.052)	
Gender	0.901	0.882	-0.020	331
	(0.299)	(0.324)	(0.034)	
Education	3.778	3.811	0.033	331
	(0.827)	(0.919)	(0.096)	
Type of Store Premise	0.728	0.728	-0.001	331
	(0.446)	(0.446)	(0.049)	
Distance from Home	1.170	1.078	-0.092	98
	(0.670)	(0.337)	(0.106)	
Length of Tenure	0.463	0.450	-0.013	331
	(0.500)	(0.499)	(0.055)	
Number of Employees	2.562	2.177	-0.386	324
	(3.048)	(1.213)	(0.257)	
Weekly Revenue	1.506	1.414	-0.092	331
	(0.843)	(0.791)	(0.090)	
Manipulation Check	0.586	0.740	0.153***	331
	(0.494)	(0.440)	(0.051)	
Observations	162	169	331	

Note: The values in this table are group means by treatment status. Treatment indicates receipt of the randomly assigned formal firm treatment. The third column presents differences in means between formal firm and state groups. $^{+}p < 0.10$, $^{*}p < 0.05$, $^{**}p < 0.01$, $^{***}p < 0.001$.

3.6 Results

To test the hypotheses above, I estimate Equation (3.1). Figure 3.5 summarizes the effect of treatment on willingness to formalize.[23] The point estimates in Figure 3.5 correspond to the intent-to-treat effect of the treatment on the outcomes of interest. The results show that the formal firm treatment (relative to the state treatment) has no impact on formalization outcomes.

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[23]The coefficient estimates are reported in Table B.1 in Appendix B.2.

Figure 3.5: Average Effect of Formal Firm Treatment on Formalization Outcomes
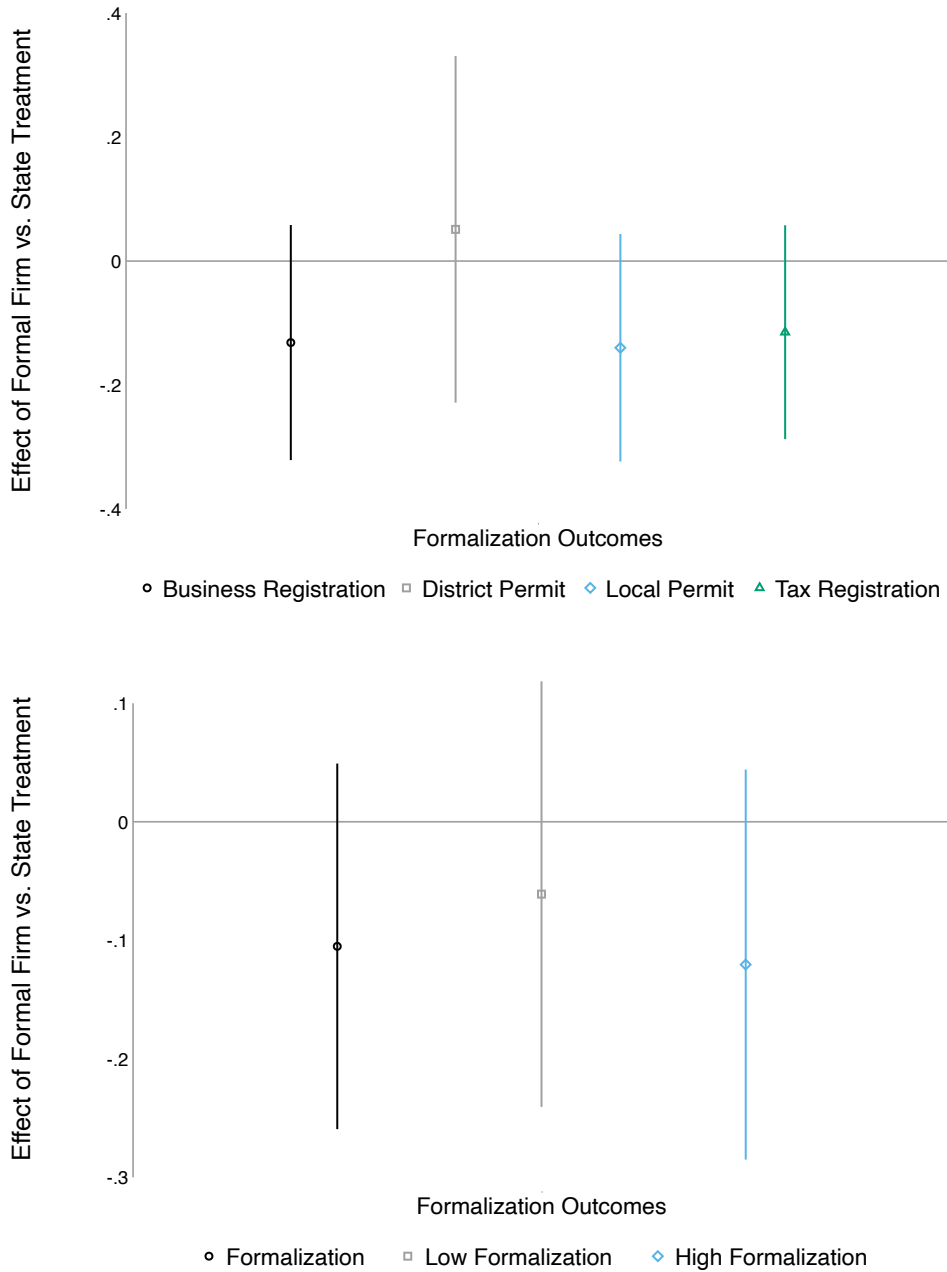
Note: The formalization outcomes in the bottom panel are constructed indices. Formalization combines the four constituent outcomes in the top panel. Low formalization combines business registration (for legal status) and district permit registration. High formalization combines local government permit registration and tax registration.

Each column of Table 3.2 provides the results for an estimated model for the dependent variable

specified. The first column shows the intent-to-treat effect of non-state service provision on tax morale, while the second column indicates whether the informational intervention induced a change in expressed levels of tax morale (i.e., pro-tax compliance attitudes). Contrary to Hypothesis 4, non-state service provision does not reduce tax morale. This result may be suggestive of the fact that citizens are aware of their role in the fiscal exchange, i.e., they have an obligation to pay tax. 68% of the sample said, prior to treatment, that they agree with the statement: "citizens should always pay tax even if they disagree with the government". The existing literature views tax morale as an important driver of tax registration and payment (Bodea and LeBas, 2016). Given relatively high levels of agreement, why citizens hold pro-compliance attitudes that do not translate into actual tax payment is thus a question that can be of import to governments that attempt to widen their tax base.

Table 3.2: Estimated Effect of Formal Firm vs. State on Tax Morale

	(1) Tax Morale	(2) Change in Tax Morale
Formal Firm	-0.029	-0.070
	(0.051)	(0.083)
Constant	0.698***	0.123*
	(0.036)	(0.065)
Observations	331	331
R^2	0.001	0.002

Note: Robust standard errors are reported in parentheses. $^*p < 0.10$, $^{**}p < 0.05$, $^{***}p < 0.01$.

Figure 3.6 reports the intent-to-treat estimates of receiving information on non-state service provision. Each point estimate corresponds to the result for an estimated model for the dependent variable specified. The findings confirm Hypothesis 5: people are less willing to pay additional taxes to fund public goods where non-state service providers are present. The variable $Willingness\ to\ Pay$ is an index that combines the responses for each specific kind of service. The coefficient is negative and statistically significant at a 95% confidence interval, suggesting that, on average, the demand for state services decreases with the presence of alternative service providers, even for public goods

that are expected to benefit businesses, such as security and telecommunications. These results confirm recent works that suggest non-state provision of services dampen the demand for state services (Joshi and Ayee, 2008). Related to Hypothesis 3, the results in Figure 3.6 support the claim that formal firms that provide services in lieu of the state can undermine the fiscal contract. Especially where the state is weak and lacks the capacity to address market and institutional failures, formal firms with substantial interlinkages with the informal sector tend to step in to fill the gap, thereby increasing the costs of tax compliance relative to the benefits. In these contexts, the failure of the state to perform its basic functions can lead to the re-evaluation of citizens' participation in tax-for-services or fiscal exchange.

Figure 3.6: Average Treatment Effect on Willingness to Pay for Services
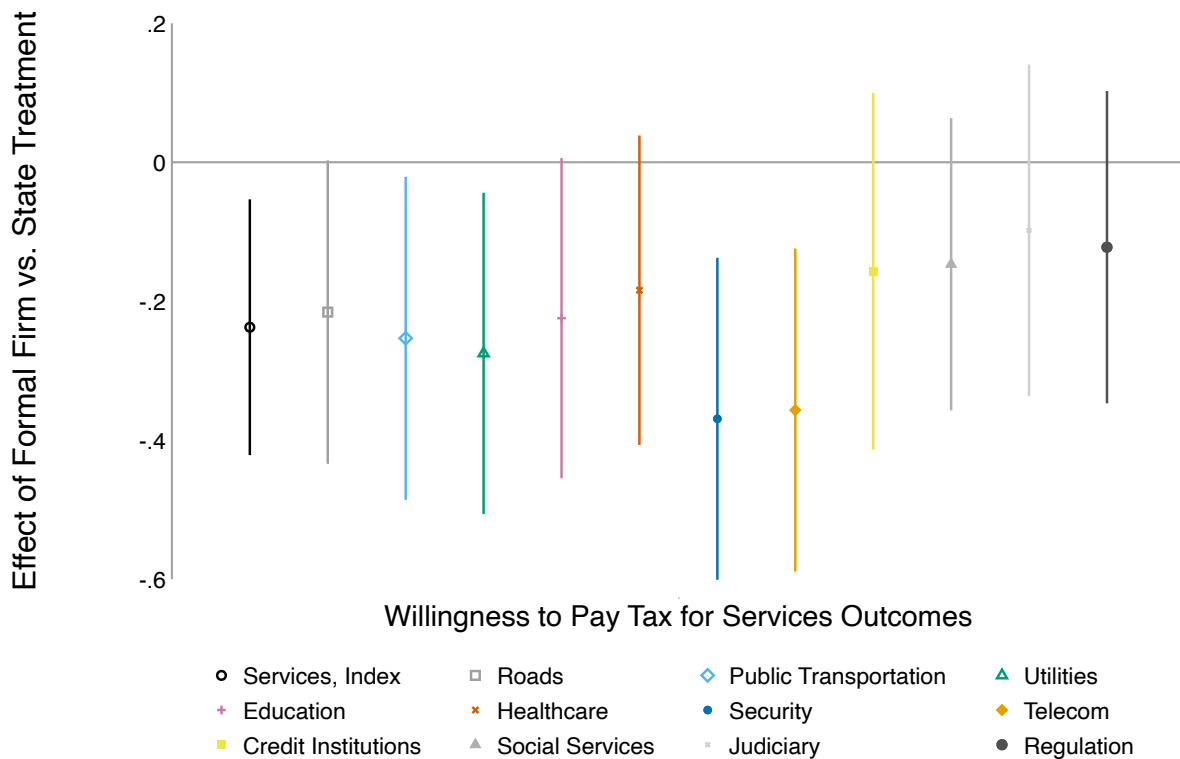
Note: The variable $Services, Index$ is an index that combines the responses to about the willingness to pay additional tax to pay for services, like education, roads, public transportation, and utilities.

However, as is evident in Figure 3.7, fewer people in the state group answered the manipulation check correctly. Therefore, I expect the treatment with the state as the service provider to be weaker than the treatment with the formal firm actor. As this is an important indicator of attentiveness and treatment uptake, all the subsequent analyses exclude those who failed the manipulation check.

Figure 3.7: Manipulation Check: Source of Funding
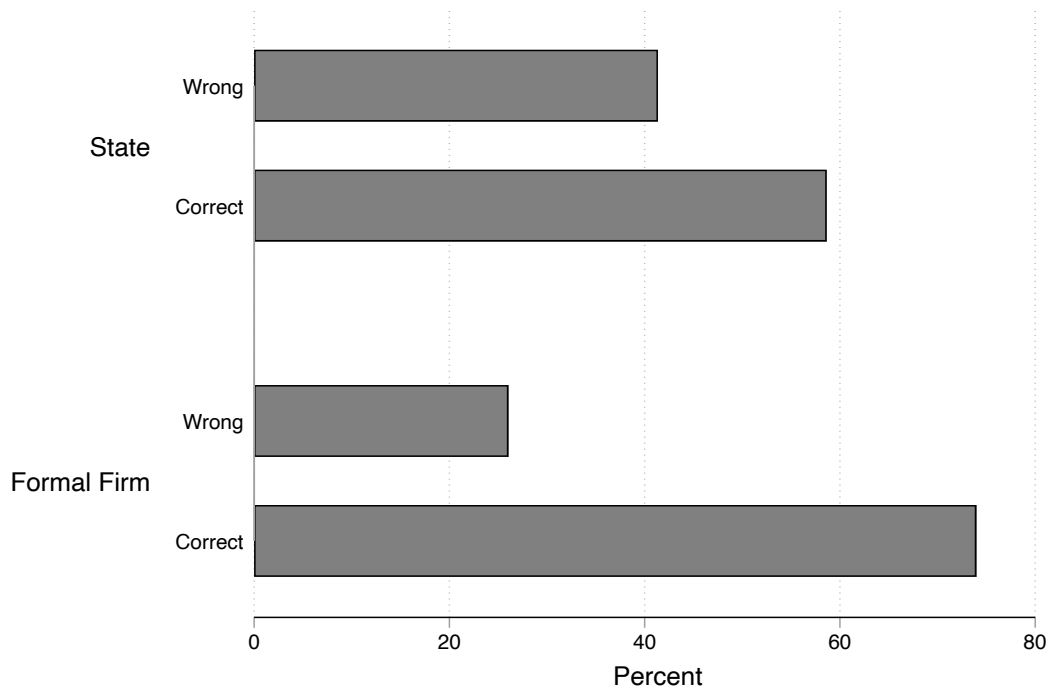
Respondents who received the state intervention are 15% more likely to fail the manipulation check and attribute service provision to the formal firm.

Consistent with the expectations in Hypotheses 1 and 2, the effect of increasing perceived benefits of formalization is similar across state and non-state providers (see Figure 3.8).[24] Although the coefficient is negative, suggesting that service provision by state actors are more effective in encouraging registration compared to non-state service delivery, it is not statistically distinguishable from zero. The reason for this is that access to these types of public goods, regardless of the

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[24]See Table B.2 in Appendix B.2 for the full results.

service provider, is often tied to business registration, which confers legal status to informal firms. Therefore, informal firms that might benefit from increased access to credit and capital markets and other pro-growth services should be indifferent to the actor providing the public goods since the requirements to opt into such programs tend to be similar. In the case of the Philippines, the credit loan program funded by the Department of Trade and Industry has similar requirements and terms with the service provided by PureGold. The only difference is that PureGold provides store credits, essentially investing in informal firm growth to bolster its own profits.

The coefficient of the variable $Local\ Permit$ is negative and statistically significant at the 95% confidence level. Specifically, information about non-state service provision decreases the likelihood of formalization at the sub-national level by approximately 24%. This finding is consistent with the expectation that individuals are less likely to comply with state regulations when public goods are provided by non-state actors like the formal sector. It is important to note that, like in countries elsewhere, registration with the local government implies local tax incidence. The coefficient of the variable $Tax\ Registration$ is also negative and statistically significant. This result confirms Hypothesis 3 where tax registration is less likely where public services are underprovided by the state.

Figure 3.8: Effect of Formal Firm Treatment on Formalization Outcomes
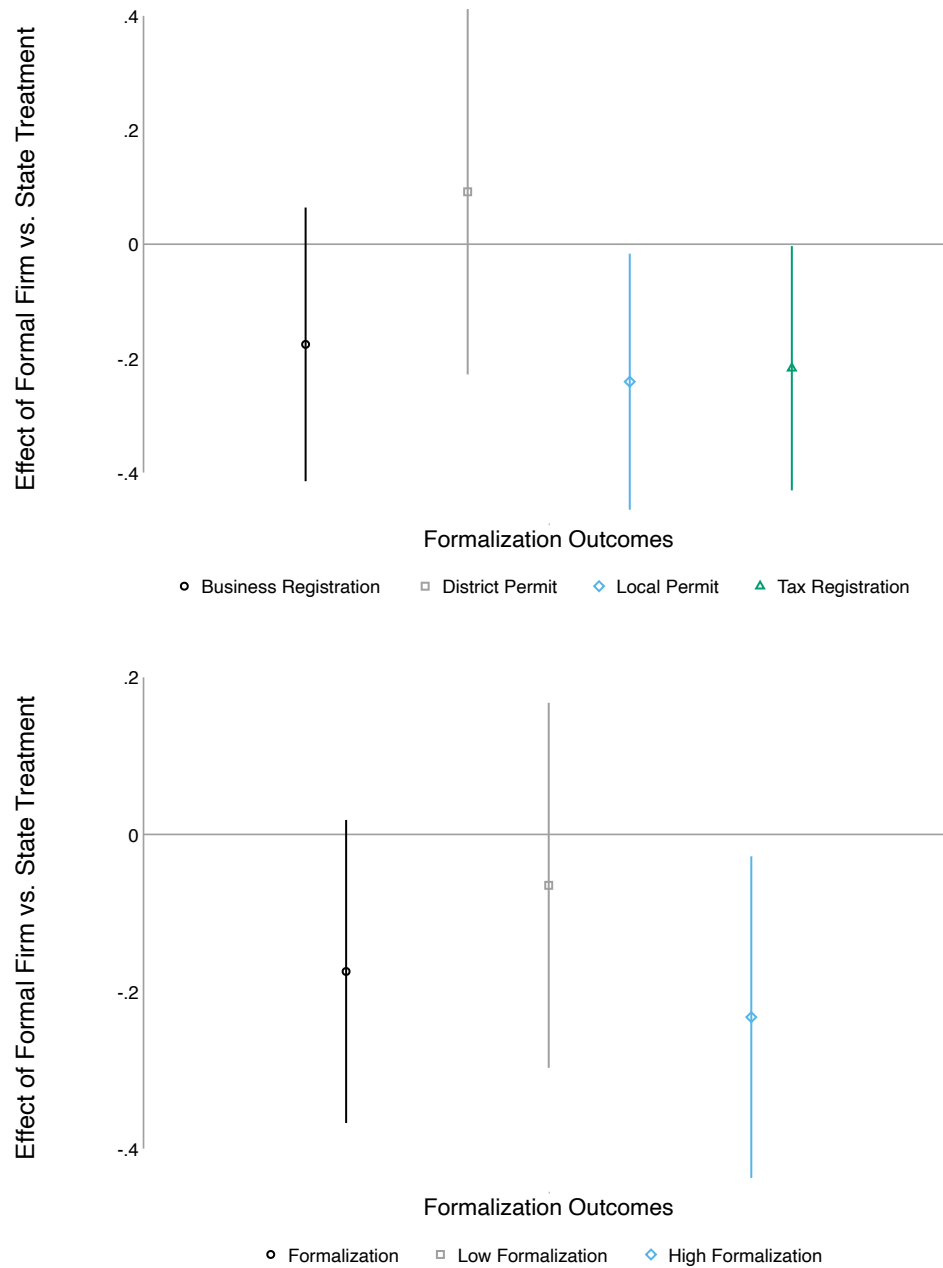
Note: The formalization outcomes in the bottom panel are constructed indices. Formalization combines the four constituent outcomes in the top panel. Low formalization combines business registration (for legal status) and district permit registration. High formalization combines local government permit registration and tax registration. Respondents who failed the manipulation check are excluded in the analyses.

Taken together, these findings suggest that service delivery by non-state actors do undermine

the fiscal contract. Since registration at these stages imply tax liability, non-state service provision may prompt citizens to evaluate why they should pay taxes to a government that does not provide direct benefits from public goods. Even if informal firms escape national taxation due to low incomes, they are still liable to pay local taxes and fees. The costs of taking the steps towards pure formality may very well be higher than the benefits, especially in contexts where the state has a history of predation and the tax burden is uncertain. In addition, while formal firms do not play a governance role in competition with the state, the services they provide often address the lack of or low-quality state service delivery. Under these conditions, non-state service provision is likely to weaken citizens' deference to the government because citizens blame the state for low-quality services while crediting the firms for providing high-quality public goods. The coefficients of the joint measures of formalization tell a similar story: the presence of alternative service providers may encourage citizens to actively evade contact with the state.

Similar to the results in Table 3.2, Table 3.3 shows that the formal firm treatment has no effect on tax morale. This means that respondents that received the information about the privately provided loan program are no more than likely than to have pro-tax attitudes compared to those that read about the state-funded service.

Table 3.3: Estimated Effect of Formal Firm vs. State on Tax Morale

	(1) Tax Morale	(2) Change in Tax Morale
Formal Firm	-0.049	-0.073
	(0.063)	(0.103)
Constant	0.705***	0.137*
	(0.047)	(0.083)
Observations	220	220
R^2	0.003	0.002

Note: Robust standard errors are reported in parentheses. $*p < 0.10$, $**p < 0.05$, $***p < 0.01$. Respondents who failed the manipulation check are excluded.

The formal firm treatment, however, has a negative effect on the willingness to pay tax for

different services (see Figure 3.9). These findings are consistent with Hypothesis 5, which states that the presence of non-state service providers weakens the desire of citizens to pay additional taxes to finance public goods. People who received the formal firm treatment are less willing to pay more than those who received the state treatment, especially on services that are expected to be pro-growth like roads, utility, and security.

Figure 3.9: Average Treatment Effect on Willingness to Pay for Services

Note: The variable $Services, Index$ is an index that combines the responses to about the willingness to pay additional tax to pay for services, like education, roads, public transportation, and utilities. Respondents who failed the manipulation check are excluded in the analyses.

Overall, the findings in this study are consistent with the view that non-state actors undermines state-building because the link between citizens' deference to government rules and regulations and the state's fulfillment of a fiscal contract is broken. First, I show that non-state actors, even those

that do not directly compete with the state for authority, create tensions between the state that lacks the capacity to fulfill its governance role and its citizens. Second, the effect of underprovision of state services explain why firms in developing countries often exhibit different levels of informality. Moreover, when the formal and informal sector are highly interlinked, formal businesses have strong incentives to address the market and institutional failures that arise from poor governance. Investment in services that promote growth and efficiency of smallholders, which are often informal, is a way for formal firms to improve their own competitiveness and profitability. These profit maximizing motives have spillover effects in that informal businesses are encouraged to pursue partial formality and obtain some form of legality in order to benefit from privately provided services. Lastly, I provide evidence for separating registration from taxation, as the costs and benefits of moving from one step to the other vary. The key insight in my study is that increasing the perceived benefits of formalization do encourage informal enterprises to enter the formal sector in some capacity, but not in others.

3.7 Conclusion

Despite efforts to make it easier for firms to enter the formal sector, the effects of these reforms are mixed. I contend that by recognizing that formalization is not a binary choice, but rather a continuum of choices motivated by cost-benefit calculations of being in one level or the other, we are better able to identify mechanisms that can successfully link the informal sector with the state. It is thus imperative to understand the underlying mechanisms for why informal firms enter quasi-formality, exposing their previously hidden economic activities to the state despite the potential costs of monitoring and compliance. In this study, I show that the benefits of state registration are not only derived from access to state service provision, but also from the opportunities facilitated by the linkages with the formal sector.

I demonstrate formal firms can play a role in encouraging entry to the formal sector. Specifically, when formal enterprises take on the role of the state by supplying underprovided public goods, the informal sector have incentives to register with the state through business registration, which is a way to be perceived as "legal". This positive effect on state legibility, however, is accompanied by a

negative impact on state-building. On the one hand, non-state service provision improves the state's information about its citizens, which is an important dimension of state capacity, as informal firms take steps toward formality. On the other hand, where the state is unable to credit-claim, non-state service provision weakens citizen support for the fiscal exchange. Formal firms that undertake delivery of services that address market and institutional failures can undermine state-building as citizens question why they defer to the government with regard to rules and regulations like taxation when the state does not fulfill its role of providing services in exchange for compliance. Therefore, while formal-informal linkages can encourage state registration, through the governance role the formal sector plays, such linkages can also discourage tax registration and compliance. These competing effects highlight the need to move away from characterizing informality as a binary choice. Programs that bundle registration for legal status and tax registration would not be effective in encouraging formalization if the effect on beliefs about the fiscal contract is stronger than the impact on legibility.

The existence of formal firms as alternative service providers, however, present an opportunity for weak states to co-opt projects by leveraging its regulatory functions to assume overall responsibility for service provision without necessarily delivering services (Sacks, 2012). Since the vast majority of citizens are likely to have little information about the state's relationship with formal firms, it can regulate non-state service provision and reap the rewards of being able to claim credit for external resources. If successful, non-state service provision can be a means through which the state can build capacity.

Overall, this study demonstrates that the dualist view of formalization is restrictive, especially in light of the increasingly interdependent formal and informal markets. I also show the importance of an understudied non-state actor in state-building: the formal sector. Future research should consider the strategies of the state to coordinate, manage, and support non-state service delivery. Under what conditions do formal firms become complements of the state? Additionally, future work can explore the heterogeneity in economic activities of the informal sector to better understand the drivers of choosing one level of formality over the other. Moreover, further research should

investigate how different degrees of formal-informal integration affect non-state service provision, which has implications for formalization. It is thus important to identify the conditions under which linkages with the formal sector are effective in bringing informal firms into the tax net.

4. PRECARITY AND PREFERENCES FOR REDISTRIBUTION IN WEAK STATES: EVIDENCE FROM THE PHILIPPINES

4.1 Introduction

A well-established literature has repeatedly demonstrated the positive link between precarity and preferences for redistribution in the Global North (Moene and Wallerstein, 2001; Iversen and Soskice, 2001; Benabou and Ok, 2001; Rehm, 2009; Alesina and Giuliano, 2011; Rueda and Stegmueller, 2019). The core logic behind this relationship is straightforward: the more precarious an individual is, i.e., the higher the risk exposure, the more she is expected to support redistribution to insure her income against future uncertainty. In spite of the existing empirical research repeatedly showing support for this claim in advanced industrialized economies, this relationship does not reproduce when examined in the context of the Global South. Works on the redistributive politics of developing countries consistently show the absence of an empirical link between precarity and preferences for redistribution (Berens, 2015*a,b*; Baker and Velasco-Guachalla, 2018) or the importance of other factors in the determination of support for redistribution (Garay, 2016; Holland, 2018).

A potential reason for this divergence is the implicit assumption in the existing scholarship that people within the same sector or occupation experience precarity in the same way. Grounded in the dualist view of labor markets in developing countries, where the informal sector is understood as marginal to the formal sector, informality and precarity are treated as de facto synonymous: formal workers are not precarious (low risk) while informal workers are precarious (high risk) (Harris and Todaro, 1970; De Soto, 1989; Potts, 2008). Yet, it is clear that informality and precarity are distinct concepts. The notion of informality generally refers to economic activities that circumvent or lie beyond state regulation (Castells and Portes, 1989), whereas precarity refers to the uncertainty, instability, and insecurity of work (Kalleberg and Hewison, 2013). It is thus possible to have a precarious job in the formal sector, and a non-precarious job in the informal sector.

For example, rideshare drivers (e.g., Uber, Grab, or Bolt) are formally employed (in some countries) as they are under the scope of state regulation and taxation. Yet, they are usually exposed to job insecurity and income volatility due to consumer ratings, limits on working time, or accidents and illness at work (Prassl, 2018). In contrast, market vendors employed in the informal sector may have large volume of sales and stable income (Benjamin and Mbaye, 2012) or they may have high levels of protection from strong patron-client networks (Prag, 2010). These examples highlight two important limitations of the existing literature on risk, precarity, and redistribution in developing countries: (i) the inability to differentiate informality from precarity, and (ii) the subsequent lack of analysis on the relationship between precarity, informality, and preferences for redistribution.

This paper seeks to remedy this methodological and conceptual shortcoming by disentangling precarity from informality, examining the link between precarity and redistributive preferences, and exploring the mechanisms underlying this relationship, all in the context of a developing country.[1] We conduct an online survey experiment on a sample of 1,526 residents of Metro Manila, Philippines. Since we cannot experimentally assign labor market risk, we take advantage of a "shock" to risk, namely, the COVID-19 pandemic. We randomly assign participants to receive a COVID-related prime, which serves as an exogenous shock that generates variation in precarity. This experimental design allows us to ascertain the causal influence of precarity on redistributive preferences, circumventing some of the inferential problems of imputing risk exposure from group-level indicators such as informality. Priming with COVID-related questions (e.g., job loss, changes in income, and access to government aid) results in higher levels of precarity, which is, in itself, a striking finding given that the experiment was conducted amidst the state's COVID-induced lockdown.

Our study yields three major findings. First, precarity engenders divergent preferences for redistributive policies. Specifically, if made to choose, precarious individuals are more likely to favor needs-based social assistance policies (e.g., non-contributory schemes such as cash transfers, fee waivers for basic health and education services, and food subsidies) over employment-based

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[1]This study is pre-registered and the Pre-Analysis Plan (PAP) is submitted to the OSF registry.

social insurance policies (e.g., contributory schemes such as unemployment compensations, health insurance, and old-age pensions). This result is consistent with studies linking variation in precarity with divergent social policy preferences, and further suggests that once we correctly measure precarity the divergent result in studies between the Global North and the Global South is reconciled.

Second, precarious individuals do not support more redistribution than their non-precarious counterparts. This result is consistent with studies on the Global South that show that precarity has no effect on support for redistribution, yet inconsistent with studies on the Global North that show that precarity leads to positive support for redistribution. A potential reason for this divergence is expectations: even if citizens from the Global South may benefit in principle from redistribution, they do not expect to actually receive these benefits. Whereas in the Global North, preferences for redistribution is matched with the belief that they will receive these benefits and will be made better off. Taken together, these two results show that the divergence between the Global North and South is reconciled in terms of preferences for redistribution, but the divergence remains when we consider support for redistribution. The effect of precarity on preferences for redistribution in the Global North and Global South are the same: more precarious individuals prefer more redistributive policies. There is, however, a difference in how precarity shapes support for redistribution in the Global North and the Global South. In other words, citizens in the Global South have a preferred redistributive policy that they do not want to support and pay for because they do not expect that they will receive the benefits in practice.

Finally, because we are able to disentangle precarity and informality we are able to empirically examine how both of these factors jointly determine preferences for redistribution. Specifically, informality moderates the link between precarity and preferences for redistribution. In particular, if a worker is in the informal sector, precarity does not have an effect on preferences for redistribution. If, however, a worker is in the formal sector, precarity does lead to divergent effects on preferences for redistribution. The reason behind this result is because social assistance is distributed based on need and paid for by all workers regardless of their formal status, while social insurance is financed by employment and is paid for by taxes from income, which means only formal workers pay. Both

precarious and non-precarious informal workers therefore prefer social assistance because they do not benefit from social insurance. On the other hand, precarious formal workers prefer social assistance because they would still receive a benefit in case they lose their job, or the benefit can be added on top of their social insurance benefits. Non-precarious formal workers do not think they will lose their job and hence prefer social insurance, since informal workers do not free ride in this case, as opposed to social assistance, where free-riding by informal workers is possible.

Our paper makes methodological and conceptual contributions. First, it is the first paper to conceptually disentangle precarity and informality. Furthermore, to the best of our knowledge, we are the first to causally determine the effect of precarity on both preferences and support for redistribution. Taking a more comparative perspective, this paper begins to reconcile the seemingly divergent relationship between precarity and redistributive preferences in the Global North and the Global South. In particular, both share similar preferences for redistribution, but precarity in the Global North leads to increased support for redistribution, whereas precarity in the Global South does not. The reason is because citizens of the Global North expect to accrue the benefits of redistributive policy, whereas the citizens of the Global South, due to weak state capacity, patronage, inefficiency, or whatever else, do not.

4.2 Defining Precarity: North vs. South

An influential literature in redistributive politics has argued that an individual's exposure to risk (Moene and Wallerstein, 2001; Iversen and Soskice, 2001; Rehm, 2009) and expectations of future income (Benabou and Ok, 2001; Alesina and Giuliano, 2011; Rueda and Stegmueller, 2019) determine preferences for the scope and size of redistribution, well beyond what simple material self-interest (e.g., present position in the income distribution) would suggest (Romer, 1975; Meltzer and Richard, 1981). A core finding in this literature holds that individuals who are exposed to unemployment risk, whether realized or anticipated, are more likely to be in favor of redistribution. The logic is straightforward: to be at risk is to be precarious or uncertain and insecure, which makes redistribution attractive as it acts as insurance against risks that are difficult to insure privately (Moene and Wallerstein, 2001; Rehm, 2009).

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Additionally, since redistributive policies in modern welfare states are either based on the redistributive goal of the state (redistribute income from the rich to the poor) or its insurance goal (provide social insurance), preferences are predicted to diverge in accordance to risk exposure (Rueda, 2005; Alesina and Giuliano, 2011; Häusermann, Schwander and Kurer, 2014). Specifically, people employed full-time with permanent contracts (low risk, not precarious) prefer employment-based social insurance policies, like old-age pensions, that distribute benefits in proportion to their contribution payments. In contrast, individuals in fixed-term and temporary jobs (high risk, precarious) favor needs-based social assistance policies, such as cash transfers, because they do not qualify for social insurance schemes.

The implicit assumption is that redistributive preferences change in response to shifts in employment circumstances. In these works, risk exposure is imputed from group-level occupational characteristics and assumed to be homogeneous: people in the same occupation or industry experience risk the same way. Rehm (2009, 2016), for instance, argues that occupational characteristics capture risk exposure because the potential cost of unemployment is higher when switching between occupations than between industries. Iversen and Soskice (2001) use skill specificity (i.e., portability of individual skills) as an indicator of risk, arguing that those with specific skills face higher unemployment risk because they are valuable only to one occupation or industry. Thewissen and Rueda (2019) suggest that jobs that rely on repetitive tasks are most exposed to risk because their tasks could be automated, outsourced, or require more specific skill investments.

Extending this logic to the developing world, scholars infer risk and, in turn, precarity from the occupational characteristics of the formal and informal sectors. Rooted in the dualistic view of the economy as having two sectors, the informal sector is understood as the subsistence-oriented, disadvantaged sector in which workers enter to escape unemployment in the formal sector (Hart, 1973; Castells and Portes, 1989). Since it is outside the purview of the state regulatory system and lacks the security and social protection that the formal sector provides, the informal sector is expected to be the most exposed to labor market risk. Factors such as uncertain legal status, lack of means to enforce contracts, low income, and high costs to organizing mean that informal workers

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are susceptible to high levels of economic vulnerability, income insecurity, and job precarity (King and Rueda, 2008; Hummel, 2017). The formal sector, in contrast, is characterized by high levels of protection and employment rights, higher salaries, and secure levels of social benefits, such as severance pay and pensions (Rueda, Wibbels and Altamirano, 2015).

Yet, precarity and informality are distinct concepts. Precarity is related to risk: employment is precarious (i.e., high risk) if it is uncertain, unstable, and insecure (Standing, 2010; Kalleberg and Hewison, 2013). Meanwhile, informality pertains to state rules and regulations: employment is informal if it is neither monitored nor taxed by the state (Castells and Portes, 1989). While the dualist typology of formal-informal is insightful, labor market risk, particularly in the developing world, cannot be mapped neatly into this dichotomy for various reasons.

First, economic liberalization has led to relaxed labor regulations, limited social security benefits, modified collective bargaining regulations, deregulated employment relations, and increased market power of capitalists over labor (Kudva and Beneria, 2005). These labor market developments have resulted in a greater diversity in economic and employment situations within the formal sector all over the world (Standing, 1997; Monastiriotis, 2006). The rise of more flexible forms of employment and the gig economy have generated considerable internal variation in formal working conditions as well. People in these "non-standard" work arrangements are protected in that they have formal contracts and social security benefits, but can nevertheless experience precarity due to income volatility, lack of job tenure, or hazardous working conditions (Kalleberg, 2014). In weak states, specifically, the premium attached to formal employment (i.e., secure employment and high wages) has also diminished due to inadequate monitoring and weak enforcement of contracts and other labor regulations (Barrientos, 2009). As a result, it is possible to have a high risk job (precarious) in a low risk environment (formal sector).

Second, the informal sector is no longer the monolith that the existing literature describes it to be. Instead, it is composed of heterogeneous and highly differentiated economic activities, ranging from the small-scale and survivalist endeavors of the poor to the large-scale and dynamic ventures of the non-poor (see the discussion in, e.g., Kudva and Beneria, 2005; Chen, 2012; De Vreyer

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and Roubaud, 2013; Kanbur, 2017). While it still represents extreme forms of precariousness for workers, the informal sector has also been a source of economic dynamism and growth in many developing countries (Kudva and Beneria, 2005). It is thus likely for a low risk job (not precarious) to be in a high risk environment (informal sector).

A couple of examples illustrate this claim. Consider, for instance, independent contracting — a formal yet precarious job. A survey of freelancers in the Philippines report that 92% of respondents declare job insecurity as a primary concern because they frequently move from one short-term contract to another (The ASEAN Post, 2020). In contrast, non-precarious informal employment abound in many industries, such as construction, transportation, and domestic wholesale-retail (Benjamin and Mbaye, 2012). In Nigeria, informal markets with marketplace associations that have strong patron-client ties with the state have reported fewer shop closures during the COVID lockdown than markets without such ties, exhibiting employment stability in the informal sector (LeBas, 2020). These examples highlight that people within the same labor market group do not experience precarity in the same way, and that the binary informal-formal distinction does not capture the complexities of contemporary labor markets. It is thus unsurprising that existing works find no distinguishable difference in redistributive preferences between the formal and informal sectors.

4.3 Re-defining Precarity and its Effect on Redistribution

In this paper, we seek to disentangle precarity from informality and explicitly examine the role precarity plays in shaping preferences for redistribution. The discussion above presents the argument that interpretations of support for redistribution and its relationship to precarity are unreliable when precarity is imputed from the group-level formal-informal dichotomy. The increasingly varied working conditions within both the formal and informal sectors in the developing world requires a measure of precarity that captures individual-level differences in unemployment risk. We contend that risks are shaped by objective factors based on occupational characteristics, as well as subjective indicators, such as job experience and social networks. Both objective and subjective unemployment risks matter in that the same objective threat, i.e., COVID-19, may be viewed differently by different

people according to expectations of job security and other personal factors. Contextual factors, in particular, affect how one perceives precarity in light of future economic and employment uncertainty (Benach, Vives, Amable, Vanroelen, Tarafa and Muntaner, 2014). As such, a measure of precarity that takes into account expectations about current and future risks is better suited to grasp the political implications of risk exposure.[2]

Consistent with the testable implications in the existing literature on social policy formation in the Global North (see discussion in, e.g., Iversen and Soskice, 2001; Rehm, 2009; Häusermann, Schwander and Kurer, 2014), we expect that the more precarious an individual is, the greater her support for social policies that are based on need (social assistance) over those based on employment (social insurance). Social insurance programs, like pensions and unemployment compensations, are contributory schemes that distribute benefits proportional to regular contributions from direct taxation (e.g., withholding income tax, payroll tax). Simply, only those who pay qualify for social insurance benefits. In contrast, social assistance, like cash transfers and subsidies, is a non-contributory intervention designed to provide benefits to vulnerable segments of the population. It does not restrict beneficiaries based on contributions, and are typically financed by general tax revenue (i.e., direct income tax and indirect tax like tax on goods and services) (Barrientos, 2009). People with precarious jobs receive paltry benefits (or none at all) from social insurance due to their low and irregular contributions. Therefore, they should prefer compensation for their weak labor market integration in the form of social assistance policies that are distributed on the basis of need (Häusermann, Schwander and Kurer, 2014). We may thus state our first hypothesis.

Hypothesis 1 *The more precarious an individual is, the stronger her support for social assistance, and the weaker her support for social insurance.*

In concert with the literature on redistributive politics in the Global North, we expect precarious individuals to favor redistribution more than their less precarious counterparts. When people are precarious, they are more likely to demand redistributive spending to cushion the effects of income

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[2]Pahontu (2021) shows the implications of inferring risk from group-level occupational characteristics on inferences about redistributive preferences in the Global North.

losses. The basic logic of this relationship is that precarious jobs present a serious risk of income loss which risk-adverse individuals will try to insure against by demanding income protection through public policies (Moene and Wallerstein, 2001; Cusack, Iversen and Rehm, 2006; Rehm, 2009). The second hypothesis thus follows.

Hypothesis 2 *The more precarious an individual is, the stronger her support for redistribution.*

Finally, we argue that informality moderates the relationship between precarity and preference for redistributive policies. Stated another way, formal workers with precarious employment are more likely than their non-precarious counterparts to choose non-contributory social assistance over contributory social insurance. This is a potentially puzzling result, as formal workers are expected to oppose non-contributory social assistance that informal workers can free-ride off by not paying the costs yet receiving the benefits (see discussion in, e.g., Willmore, 2014). This result, however, makes sense if we consider how precarity can shape workers' preferences. Formal workers with precarious jobs are more uncertain of their future income (i.e., more exposed to unemployment risk). It is therefore rational for them to exert a preference for non-contributory social assistance because the benefits from such schemes do not rely on traditional contributions.

Additionally, developing countries have inefficient and poorly administered welfare states. As such, formal workers in these settings generally have either a lack of experience with, or an unsatisfactory experience with, social insurance schemes. Contrast this with the easier to administer and, hence, more effectively provided social assistance policies.[3] Since formal workers often have better access to and experiences with social assistance, which can also be layered on top of social insurance, they should prefer it, especially if they are experiencing job precarity (Carnes and Mares, 2013; Berens, 2015*b*). Therefore, precarity should lead to preference divides in the formal sector.

Similarly, informal workers, recognizing their exclusion from employment-based social insurance policies (as they do not make regular contributions), should also prefer social assistance policies

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[3]In terms of the supply side, governments in developing countries have increasingly favored social assistance, which is assumed to be more effective in expanding coverage to more vulnerable groups. As of 2020, there are over 180 social assistance programs operating in 130 low- and middle-income countries, compared to only 80 in 2000 (Niño-Zarazúa, 2020). Nevertheless, social insurance remains to be the predominant form of redistribution, even though it typically covers only a very small, relatively privileged group of people (Schmitt, 2020).

that are financed by general tax revenues — regardless of whether they are precarious or not. As a result, precarity should not lead to divisive preferences in the informal sector. Table 4.1 summarizes these expectations. These testable implications underscore the importance of disentangling precarity and informality, as such an insight would not be possible without this conceptual disaggregation.[4] The third hypothesis is as follows:

Hypothesis 3 *Informality moderates the effect of precarity on support for social insurance and social assistance.*

Table 4.1: Expected Preferences for Type of Redistribution

	Formal	Informal
Precarious	Non-contributory social assistance	Non-contributory social assistance
Not Precarious	Contributory social insurance	Non-contributory social assistance

4.4 The COVID-19 Experiment in the Philippines

To test our hypotheses, we conducted an online survey with individuals living in Metro Manila, Philippines. To identify the effect of risk on redistribution, we need an intervention that randomizes the degree of precarity of individuals in treatment and control groups. A crucial challenge to the implementation of such a treatment is that the economic conditions that lead to precarity cannot be randomly assigned. To sidestep this issue, we leverage the COVID pandemic as a blunt shock to the perceived precarity of the respondents. We do this by randomly assigning the order in which respondents receive COVID-related questions. Questions regarding redistributive policies precede

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[4]While we have expectations about preference strength, e.g., formal and precarious workers should prefer non-contributory social assistance more than informal and non-precarious workers, we do not have sufficient power to make comparisons within each of the four cells of Table 4.1. We are only able to observe effects across self-reported precarity, i.e., formal and precarious versus formal and not precarious, and informal and precarious versus informal and not precarious.

COVID questions in the control group ($N = 760$), while treated respondents answer questions about COVID-related challenges before they respond to questions about redistributive policy preferences ($N = 766$). $Treatment$ is thus equal to 1 if questions related to COVID precede questions about redistributive preferences, and 0 otherwise.

The experimental design is motivated by the logic that receiving COVID-related questions (e.g., realized or anticipated job loss and changes in income) nudges the participants to evaluate their economic circumstances and the continuity of their jobs. Their appraisal of the information that primes uncertainty reveals whether they perceive their circumstances as precarious or not. This method of administering the treatment — randomly assigning the order of questions — has been successfully employed by several recent papers. For example, in LeBas (2020), respondents primed with COVID-related questions are reported to have significantly reduced trust in government and, among minorities, reduced tax morale than those who were not primed. As such, the treatment should heighten perceptions of precarity among respondents with insecure jobs and/or lack resilience strategies.

While the treatment itself does not randomly assign precarity, it primes respondents to evaluate their subjective precarity on account of the objective threat of COVID-19. We contend that individuals use heuristics to interpret cues from their daily experiences regarding the continuity of their jobs. Perceived precarity, initially introduced in studies of organizational restructuring and the psychosocial work environment, captures individual-level variation in personal and contextual factors that can lead to different reactions to the same stimuli (Benach et al., 2014). Apart from objective threats, like economic uncertainty and the breadth of social protection, precarity is also shaped by subjective beliefs about one's ability to respond to changes in her circumstances, based on unobservables like relationship with employer, membership in strong patron-client networks, or access to savings and other resilience strategies. This subjective component is especially important to an individual's assessment of her place in the risk distribution when objective measures, such as occupational unemployment rates (Rehm, 2009, 2016) and skill specificity (Iversen and Soskice, 2001), are unclear to her.

Our priming experiment circumvents some of the inferential problems of observational research. If we only rely on observational data, assigning causality to any correlate of redistributive preference is problematic because the types of people who support redistribution differ from those who do not on a number of dimensions. For example, an individual may not support generous welfare programs because her work is not precarious, or because she does not have access to redistributive programs even if she experiences a high degree of precarity. One potential concern with the use of the COVID prime is the external validity of the economic shock. In particular, one may reason that respondents could consider the shock to be temporal, and could then respond to the COVID prime in a way that differs from more persistent economic downturns. Our interpretation of the COVID shock is that it can be considered a long-term economic shock. This is especially true in the case of the Philippines and many other developing countries where COVID response is centered on limits to mobility (e.g., lockdown) that are disruptive to the economy. The Philippines, specifically, has one of the world's longest and strictest COVID lockdowns, which started in March 2020 and is still ongoing (See, 2021).[5] Respondents, at the time the experiment was conducted, are thus likely to consider their current job arrangements with long-term uncertainty.

4.4.1 Sample

In this paper, we use Metro Manila — the economic, political, and social center of the Philippines — as the setting to test our empirical arguments. There are several reasons for selecting this case. First, Metro Manila, which is composed of 16 contiguous cities and 1 municipality, and home to 20 million people, accounts for almost 40% of the country's GDP (Philippine Statistics Authority, 2018). Second, the expansion of the informal sector in the Philippines has been complemented by the process of labor flexibilization in the formal sector (Ofreneo, 2013). Precarious work thus exists in both sectors, which makes the conceptualization of precarity distinct from informality status relevant and appropriate. Third, social welfare is a continuing development priority of the state and a salient political issue (Diaz, 2014; Mangahas, 2018). Lastly, high social media penetration (71%,

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[5]Stricter movement restrictions and stay-at-home orders were reimposed on March 29, 2021 — 6 months after the beginning of the survey — as daily COVID infections breached the 10,000-mark (Al Jazeera, 2021). As of December 2021, Metro Manila is still under lockdown, albeit with looser movement restrictions.

whereas the global average is 45%) allows us to field an online study that includes a larger share of the population, a usual limitation in many developing countries.

We utilize Facebook to recruit our sample because of its massive reach in the Philippines. As of 2020, over 68% of the population has access to the internet, of those nearly 100% have a Facebook account (Camus, 2018; CNN Philippines, 2019). The Philippines' major telecommunications providers also offer free internet connection to Facebook on mobile devices, which means practically anyone, regardless of socioeconomic status, can access it (Swearingen, 2018).

The wide coverage of Facebook has important implications for external validity in that it indicates that a larger share of the population is included in the sample frame (Rosenzweig et al., 2020). Survey recruitment through social media is thus more appropriate than other alternatives such as in-person, telephone, or online platform recruitment. First, telephone interviews are infeasible in our context due to the lack of a reliable sampling frame from which to select individuals for this study. Second, online survey platforms that offer a pre-arranged pool of respondents, like Qualtrics and Amazon MTurk, do not operate in the Philippines. Third, given the high number of COVID cases and movement restrictions in the Philippines, face-to-face recruitment is not only infeasible, it is also extremely risky for both enumerators and survey participants.

To recruit study participants, we first created a Facebook page for our survey, and then used Facebook ads to create a promotional campaign for it. We defined the population for the adds based on three characteristics: age (18 and older), gender (male, female), and geography (urban residents in Metro Manila). Respondents who clicked on the Facebook ad were then redirected to the survey hosted on Qualtrics. Upon survey completion, respondents were compensated with PhP100 (USD2) worth of cellphone credits or cash (distributed through the mobile money platform GCash). The Facebook ad clearly stated that this compensation was the incentive for participation, as shown in Figure 4.1. This amount is marginal and thus insufficient to influence participant behavior.[6]

We launched our campaign on October 2020. Throughout the 6-day campaign, our ad reached over 430,000 Facebook users. However, we had differential engagement between males and females.

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[6]We received approval for the project from the relevant Institutional Review Board before conducting the experiment.

Females were significantly more likely to translate ad engagement to actual survey participation. As a result, we started the campaign again and directed it towards males until we reached gender balance.[7] We conducted the first round of the campaign for six days in October 2020. Because our sample was unbalanced, we ran another round for six days in March 2021.[8]

Figure 4.1: Facebook Advertisement for Employment Survey

Note: This advertisement is placed on the Facebook News Feed page. When clicked, the ad will take the subject to the survey page on Qualtrics. Facebook distributed this ad randomly to users based on our selection criteria, which include gender and age.

Of the people who responded to the survey, we dropped bots and duplicates flagged by Qualtrics. In cases where multiple surveys share the same IP address or cellphone number, we only keep the first response. The final sample only includes respondents who completed the survey. We also screened-out full-time students and people under 18 years old. Apart from concerns about the age of consent, these groups are often not considered as labor force participants. As such, we anticipated very different dynamics in terms of preference formation, which is outside the scope of our study.

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[7]We speculated that increasing the incentive value would persuade males to participate, so we created a raffle, with a Samsung tablet as prize, to all participants who finished the survey. This strategy only marginally increased male participation, leading us to believe that Filipino women are, on average, more receptive to online surveys.

[8]The results are robust to the inclusion of temporal controls that account for the two rounds of the survey.

4.4.2 Measuring Precarity

To construct the individual-level measure of job precarity, we designed a survey question that captures unemployment risk which takes into account both objective (e.g., transferable skills, labor market trends) and subjective (e.g., recommendations from employer, social networks) indicators of resilience after unanticipated job loss. We asked respondents "If you lost your job today, how difficult or easy would it be for you to get a similar or better job with another employer?". Respondents were given four options, based on a four-point Likert scale ranging from "extremely easy" to "extremely difficult".[9] The more difficult it is to find comparable employment, namely, the higher the uncertainty of future income, the more precarious an individual is.

We also devised a question that captures the threat of involuntary job loss.[10] Job insecurity is often used as a measure of precarity because it implies a high risk of job loss, as is frequently the case for those with irregular and unpredictable employment. This indicator, however, ignores the possibility that unemployment is temporal. That is, one may not view her position as necessarily precarious despite current job insecurity because she can easily find employment in a different organization.

Similarly, job security does not necessarily imply resilience in the face of unemployment shocks. People with secure jobs but with non-transferable skills, for instance, may nonetheless perceive precarity because they anticipate difficulties in finding employment elsewhere should they lose their current job. As such, we use the measure of job precarity described above in the main analyses and report the findings using job insecurity in Appendix C.1.[11]

To determine the effectiveness of the treatment in inducing precarity, we examine whether or not the treatment group reports higher values of perceived precarity compared to the control. Figure 4.2 shows that the prime worked: receiving the COVID prime increases job precarity and job insecurity by eight and nine percentage points, respectively. This COVID prime was effective in increasing

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[9] The General Social Survey (GSS) and the European Social Survey (ESS) have included a similarly worded question in some of their surveys to measure cognitive employment insecurity.

[10] The question wording is listed in Appendix C.1.

[11] The results are also robust to the alternative measure of precarity that interacts job precarity with job insecurity, as reported in Appendix C.1.

feelings of vulnerability and perceptions of unemployment risk. The effects are substantively meaningful: the treatment increases perceptions of job precarity by 7.8 percentage points, while it leads to an 8.9 percentage-point increase in job insecurity.

Figure 4.2: Manipulation Check: Prime Increased Precarity
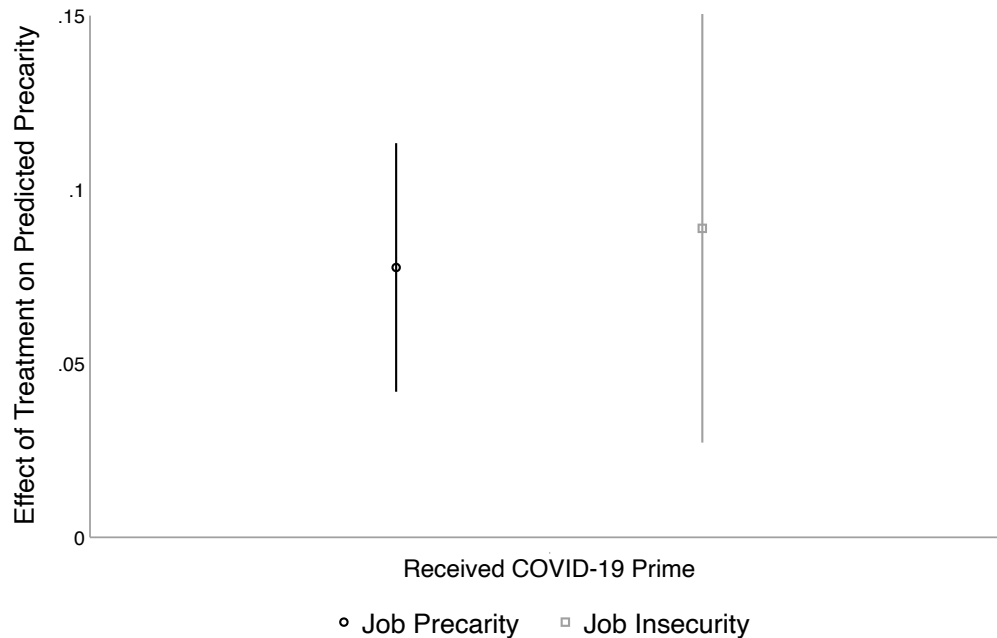
Note: The black and gray plots in Figure 4.2 denote the unbiased causal effect of receiving the COVID prime on job precarity and job insecurity, respectively. These point estimates are obtained by regressing perceived precarity on a dummy indicating receipt of the COVID prime. The manipulation check indicates that the treatment is effective. The participants who received the COVID prime report higher levels of job precarity (black) and job insecurity (gray). These results are statistically significant at $p = 000$.

4.4.3 Measuring Informality

Our theory posits a substantive distinction between precarity and informality. Thus, a measure of informality is required. The most widespread definition of informality is centered on the legal status of employment: whether registered and complying with relevant legislation (Joshi, Prichard and Heady, 2014). In this usage, workers and firms are informal if they circumvent or are not subject to state rules and regulations, including labor laws, registration, and taxation. The operationalization

of this definition, however, remains a matter of discussion and contention in the existing literature (Lindell, 2010). Given this complexity, we make a choice to focus on one indicator of informality: tax compliance. We do so because the process of formalization for informal sector workers and business owners, driven by the state's attempts to mobilize tax revenue, involves registration in the tax system, for which the individual must also pay income tax liability (De Mel, McKenzie and Woodruff, 2013; Benhassine et al., 2018; LeBas, 2020). Employment is thus informal if the individual answers "No" to the question "In your current job, do you or your employer make payments for your payroll/income tax?".[12] If survey participants responded "Yes" to the question above, they are considered formal ($Formal = 1$) and informal if they said "No" ($Formal = 0$).

Notwithstanding, we acknowledge that governments in developing countries often face many obstacles to tax collection. Weak states generally lack the administrative capacity to assess income tax liability, or the enforcement capacity to compel tax compliance. As a robustness check, we created a measure of informality based on the minimal requirement of state registration. Registration allows states to monitor and regulate economic activity by making access "traceable, revocable, and dependent on compliance (Hummel, 2017, 1527)." We thus define informality as the lack of an employment contract or a business permit since these types of documents imply registration with the state labor or tax authority. In Appendix C.2, we show that our findings are robust to this alternative specification of informality.[13]

4.4.4 Measuring Preferences for Redistribution

Our primary outcome of interest specifically asks about preferences for national-level social spending programs. We follow the question design in Baker and Velasco-Guachalla (2018) and compel study participants to make tradeoffs between competing policy options and priorities. By doing so, we are able to examine the relationship between precarity and redistributive policy preferences (i.e., social insurance vs. social assistance) (Iversen and Soskice, 2001; Rehm, 2009; Häusermann, Schwander and Kurer, 2014). This technique also yields a better measure of attitudes

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[12]For business owners, we ask the question "For this business, do you make payments for your local business tax?"

[13]Using the tax-based measure of informality, 35% of the sample is informal. The registration-based measure tags 32% of the sample to the informal sector.

towards redistribution compared to the more usual index, generated from ratings of individual policies (Baker and Velasco-Guachalla, 2018; Krosnick, 1991).

We ask respondents to choose which programs the government should raise spending on: *Pantawid Pamilya* (social assistance) or SSS and GSIS (social insurance). *Pantawid Pamilya* is a needs-based social assistance program that provides coverage to poor and vulnerable groups in the Philippines. The program beneficiaries are selected through a household assessment survey and proxy-means test to predict income, and they receive a bi-monthly cash grant for up to 5 years (Orbeta Jr, Melad and Araos, 2021). Meanwhile, SSS (Social Security System) and GSIS (Government Service Insurance System) are the major agencies responsible for the financing and distribution of employment-based social insurance in the Philippines. The SSS and GSIS provide income support to employees and their families in times of contingencies like death, old age, sickness and disability (Manasan, 2009). Most importantly, both insurers provide unemployment insurance. For example, GSIS benefits come in the form of monthly cash payments equivalent to 50 percent of the average monthly compensation and the duration of the benefit depends on the length of service, ranging from two to six months. The major difference is that SSS covers private sector employees while the GSIS covers government employees. The question was as follows:

R1. Do you want the government to raise benefits for Pantawid Pamilya, which is given to the poor, or do you want the government to raise benefits for SSS and GSIS, which benefits only formal sector workers? Or do you not want the government to raise social spending?

(1) *Pantawid Pamilya*
(2) SSS and GSIS
(3) Not raise social spending

We also force respondents to indicate their preferred redistributive policy: programs financed through general tax revenues (social assistance) or programs funded by traditional contributions from wages (social insurance). The intent of this question is to reveal which redistributive policy is

favored given current levels of government social spending. That is, given a choice, which program should be prioritized by the state. We asked:[14]

> R2. Some types of government programs, like the *Pantawid Pamilya*, use resources from taxes paid by everybody to benefit some people of low or no income. Other types of programs, like the SSS and GSIS, use resources from taxes paid by those with employment contracts and benefit only those who pay. Which type of policy do you prefer?
>
> (1) Programs that benefit some with taxes paid by everyone, like *Pantawid Pamilya*
> (2) Programs that benefit those who pay, like the SSS and GSIS

Answering (1) means that the respondent prefers social assistance over social insurance, while answering (2) implies that the respondent prefers social insurance over social assistance.

4.4.5 Estimation

Given the random assignment of the COVID prime, we can calculate the intent-to-treat estimate β_1 of assignment to treatment on the outcome of interest by evaluating the following model using OLS with robust standard errors (Judkins and Porter, 2016):

$$Y_i = \alpha + \beta_1 Treatment_i + \varepsilon_i \tag{4.1}$$

where Y_i is the outcome of interest for individual i, $Treatment_i$ is an indicator of whether individual i received the COVID prime, and ε_i is the unobserved heterogeneity. β_1 is the average effect of COVID prime receipt on the outcome of interest.

The focus of this study, however, is the effect of perceived precarity on the outcome of interest, namely, preferences for redistribution. If Y_i in Equation (4.1) is redistributive preferences, the intent-to-treat effect of assignment to treatment β_1 will differ from the effect of precarity on preferences.

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[14]We ask question R2 first to capture preference for social insurance over social assistance. We then ask question R1, which asks about the respondent's preference for *more* spending, allowing respondents the choice to oppose an increase in government spending.

This disparity stems from imperfect compliance with the treatment. In other words, not every treated subject reports precariousness and not every precarious respondent received the COVID prime. For instance, individuals who are insulated from the adverse economic impact of COVID (e.g., essential workers) are unlikely to update their beliefs about their precarity even if they are treated with the COVID prime. Similarly, people in unstable and insecure jobs before the pandemic are more likely to identify as precarious even if they are not primed with the treatment. As such, the estimated intent-to-treat effect β_1 from Equation (4.1) is the combination of the impact of assignment to treatment (i.e., COVID prime) on perceived precarity and the effect of precarity on preferences for redistribution.

We can, however, isolate the causal effect of precarity on preferences for redistribution by leveraging the random assignment of the COVID prime as an instrument, since the random assignment of the prime provides plausible exogenous variation in perceived precarity (Pianzola, Trechsel, Vassil, Schwerdt and Alvarez, 2019). We thus utilize the two-stage least squares (2SLS) approach with the COVID prime as the instrument. We employ the following model to estimate the first-stage effect γ_1 of the instrument on perceived precarity:

$$Precarity_i = \tau + \gamma_1 Treatment_i + u_i \qquad (4.2)$$

We then evaluate the following second-stage model to obtain an estimate of δ_1, which measures the effect of perceived precarity on preferences for redistribution, by substituting the actual values of precarity with the predicted values of $Precarity_i$ from Equation (4.2):

$$Preferences_i = \phi + \delta_1 \widehat{Precarity}_i + \mu_i \qquad (4.3)$$

where $Preferences_i$ is the outcome of interest for individual i, $\widehat{Precarity}_i$ is the estimated precarity for individual i from Equation (4.2), and μ_i is the error term. Our parameter of interest is δ_1, which is the local average treatment effect for individuals who would not have identified as precarious if

they did not receive the COVID prime (Imbens and Angrist, 1994).[15]

4.5 Measurement and Descriptive Statistics

Our key outcomes of interest are measured using data from the survey experiment we conducted between October 2020 and March 2021. Participants were directly asked about their preferences for increased social spending (see question R1 on page 89). Of the 1,526 survey respondents, 16% prefers that the government does not increase spending on redistribution, 43% prefers increased spending on non-contributory social assistance, and 41% prefers increased spending on contributory social insurance. Since preference for social assistance and social insurance are highly correlated (Alesina and Giuliano, 2011), for ease of interpretation, we can operationalize the outcome of interest as a binary measure that indicates whether respondents favor higher social spending ($= 1$) or not ($= 0$). We label this outcome variable of interest $Prefers\ More\ Redistribution$. In addition, we draw from the literature on social policy formation and classify individuals in terms of their favored redistributive policy. We create the indicator variable $Prefers\ Social\ Insurance$ that is equal to 0 if the respondent favors (non-contributory) social assistance and 1 if she prefers (contributory) social insurance (see question R2 on page 90).

As discussed above, we measure job precarity by asking respondents to evaluate how difficult it is to find a comparable job should they lose their current one. There are four options, based on a four-point Likert item ranging from "extremely easy (1)" to "extremely difficult (4)". The mean job precarity is 3.12 for the control group and 3.34 for the treatment group. For ease of interpretation, we created a binary variable that assigns a value of 0 (non-precarious) to those who responded "extremely easy" and "somewhat easy" and 1 (precarious) to those who answered "somewhat difficult" and "extremely difficult". We label this indicator variable $Precarity$.[16] Figure

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[15]The instrumental variable estimate δ_1 is the intent-to-treat effect of the COVID prime, β_1 from Equation (4.1), divided by the treatment compliance estimated by the first-stage coefficient γ_1 from Equation (4.2) (Pianzola et al., 2019).

[16]Operationalizing $Precarity$ as a binary variable also allows for a more straightforward first-stage estimation. According to Angrist and Krueger (2001, 80), "using a linear regression for the first-stage estimates generates consistent second-stage estimates even with a dummy endogenous variable." Additionally, nonlinear models like ordered probit and logit models require that all covariates are independent of unobserved heterogeneity, and as such do not allow for endogeneity (Wooldridge, 2010).

C.1 in Appendix C.1 shows that the mean value of $Precarity$ for the control group is significantly lower compared to the treatment group.

The key instrumental variable is COVID prime receipt. We create the binary variable $Received$ $COVID\ Prime$, which is equal to 1 if the respondent is assigned to the treatment group and 0 if she is in the control group. Table 4.2 reports some average background characteristics of respondents by treatment status. The table shows that the random assignment yielded a balanced sample, with no significant differences between the treatment and control groups. Although the treated group are less likely to be college-educated than the control group.[17]

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[17]Only 65% of people in the treatment group have at least some college education compared to 69% in the control group.

Table 4.2: Descriptive Statistics by COVID-19 Prime Treatment Status

	(1)	(2)	(3)	(4)
Variable	Control	Treatment	Difference	Observations
Received COVID-19 Prime	0.000	1.000	1.000	1,526
	(0.000)	(0.000)	(0.000)	
Precarity	0.831	0.908	0.078***	1,356
	(0.375)	(0.289)	(0.018)	
Formal Sector	0.659	0.642	-0.018	1,227
	(0.474)	(0.480)	(0.027)	
Gender	0.607	0.627	0.020	1,526
	(0.489)	(0.484)	(0.025)	
Age	1,985.529	1,984.726	-0.803	1,526
	(11.665)	(11.828)	(0.601)	
Education	0.692	0.649	-0.043*	1,526
	(0.462)	(0.478)	(0.024)	
Household Income	0.293	0.275	-0.018	1,526
	(0.456)	(0.447)	(0.023)	
Savings	0.575	0.535	-0.040	1,526
	(0.495)	(0.499)	(0.025)	
Remittances	0.237	0.239	0.002	1,524
	(0.426)	(0.427)	(0.022)	
Contractual	0.586	0.605	0.019	781
	(0.737)	(0.728)	(0.052)	
Social Insurance Access	0.667	0.638	-0.029	1,253
	(0.472)	(0.481)	(0.027)	
Observations	760	766	1,526	

Note: The values in this table are group means by treatment status. Treatment indicates receipt of the randomly assigned COVID-19 prime. The third column presents differences in means between treatment and control groups. $^{+}p < 0.10$, $^{*}p < 0.05$, $^{**}p < 0.01$, $^{***}p < 0.001$.

To test Hypothesis 1 and Hypothesis 2, we evaluate Equation (4.3) by substituting the reported

values of precarity with the predicted values derived from Equation (4.2). For ease of interpretation, we test Hypothesis 3 by estimating Equations (4.2) and (4.3) using the sub-samples of formal and informal workers, respectively.

4.6   Results

We begin our analysis by estimating the first-stage model given by Equation (4.2) and report the results in Table 4.3. We do this in order to test whether the COVID prime is a valid instrument. If the prime is valid, then we would expect to see the significant differences in precarity — as measured by the comparable employment question (P1) — for respondents who received the prime versus respondents who did not.

The results in Table 4.3 show that the COVID prime is valid. The first column of Table 4.3 indicates that COVID prime receipt increases perceived precarity by 7.8 percentage points. This effect is highly significant, demonstrating that the treatment had a significant impact on perceptions of precarity. Additionally, columns 2 and 3 show that the treatment is effective in prompting recipients employed in the formal and informal sector, respectively, to update their beliefs about their own precariousness. Formal workers in the treatment group are 7.7 percentage points more likely to report precariousness than their counterparts in the control group. Similarly, COVID prime receipt leads to a 7.5 percentage point increase in precarity among people working in the informal sector.

In Table 4.4, we report the intent-to-treat estimates from Equation (4.1). These coefficients correspond to the reduced-form effect of the COVID prime on the outcomes of interest. Since the COVID prime is randomly assigned, these estimates can be interpreted causally. The first column of Table 4.4 indicates that the COVID prime treatment significantly decreases support for social insurance. The magnitude of this reduced-form effect is quite substantial compared to the baseline preferred redistributive policy among people in the control group. The baseline mean is 0.53, which means that the treatment led to about a 90% decrease in support for social insurance (and, in turn, increased support for social assistance).

Meanwhile, column 2 shows that the COVID prime has no effect on preferences for increased

Table 4.3: Estimated Effect of Randomized COVID-19 Prime on Precarity

	(1) Full Sample	(2) Formal Sector Only	(3) Informal Sector Only
Received COVID-19 Prime	0.078***	0.077**	0.075*
	(0.018)	(0.025)	(0.030)
Constant	0.831***	0.819***	0.860***
	(0.015)	(0.019)	(0.025)
Observations	1356	778	415

Note: Estimates are first-stage effects of the IV approach. Columns 2 and 3 provide model estimates for participants employed in the formal and informal sector, respectively. Robust standard errors in parentheses. $^{+}p < 0.10$, $^{*}p < 0.05$, $^{**}p < 0.01$, $^{***}p < 0.001$.

social spending. The coefficient of the binary variable $Prefers\ More\ Redistribution$ indicates that the difference in preferences between the treatment and control groups is not statistically distinguishable from zero. As discussed in the Estimation Section, however, imperfect compliance with the treatment means that these intent-to-treat estimates combine the effect of the COVID prime on precarity and the impact of precarity on preferences for redistribution.

Table 4.4: Estimated Effect of Randomized COVID-19 Prime on Preferences for Redistribution

	(1) Prefer Social Insurance	(2) Prefer More Redistribution
Received COVID-19 Prime	-0.051*	-0.016
	(0.026)	(0.019)
Constant	0.526***	0.853***
	(0.018)	(0.013)
Observations	1526	1526

Note: Estimates are the intent-to-treat effect of assignment to treatment on the dependent variable specified. Robust standard errors in parentheses. $^{+}p < 0.10$, $^{*}p < 0.05$, $^{**}p < 0.01$, $^{***}p < 0.001$.

To understand how precarity shapes redistributive preferences, we need to identify the local average treatment effect for individuals who report precarity because they received the COVID

prime. We do so by estimating the model given by Equation (4.3), with the results shown in Table 4.5. Each column of Table 4.5 provides the results for an estimated model for the dependent variable specified.

The first column of Table 4.5 shows the impact of precarity on preference for redistributive policy. The coefficient is negative and statistically significant at the 90% confidence level. Specifically, precarity decreases support for social insurance by about 70%. This result is consistent with Hypothesis 1: precarious individuals are more likely to prefer redistributive policies that are distributed on the basis of need (i.e., social assistance) over those based on employment (i.e., social insurance). Contrary to the findings in the existing literature (see, e.g., Berens, 2015*a,b*; Baker and Velasco-Guachalla, 2018, for works that use informality status as a proxy for precarity), our results support the claim that risk exposure does generate divergent preferences for redistribution. Precarious individuals tend to favor social assistance because they expect little to no protection from social insurance as they either receive low benefits from or do not qualify for such employment-based social policies. Meanwhile, people who have stable and secure employment are more likely to support social insurance schemes because the benefits stand in direct relationship to their contributions, and are earned through regular payments.

Table 4.5: Estimated Effect of Precarity on Preferences for Redistribution

	(1) Prefer Social Insurance	(2) Prefer More Redistribution
Precarity	-0.703[+]	-0.114
	(0.385)	(0.250)
Constant	1.111***	0.950***
	(0.336)	(0.217)
Observations	1356	1356

Note: Estimates are second-stage effects of the IV approach for the dependent variable specified. Robust standard errors in parentheses. $^{+}p < 0.10$, $^{*}p < 0.05$, $^{**}p < 0.01$, $^{***}p < 0.001$.

The second column of Table 4.5 reports the estimated effect of precarity on preferences for

increased social spending. Contrary to our expectation in Hypothesis 2, the IV estimate shows that precarity has no impact on the demand for redistribution. This result is consistent with recent studies which argue that disadvantaged groups (i.e., precarious or poor) only support policies where they expect to benefit from (Holland, 2018; Altamirano, 2019).

In the developing country context where welfare budgets are often small, precarious individuals may not support increased social spending because they have low expectations of benefiting from the state. This is suggestive evidence that the divergence between the theoretical and empirical works on the redistributive politics of the Global South is not only due to the operationalization of precarity as informality. It is also because the theory of redistributive demand does not explicitly take into account expectations of whether or not social policies redistribute risks or resources in favor of people facing high levels of uncertainty.

As summarized in Hypothesis 3, we expect informality to condition the effect of precarity on preferences for redistribution because of differential access to various social policies. Specifically, since formal workers can qualify for both employment-based and need-based policies, precarity should lead to divergent redistributive policy preferences within the formal sector. The first column of Table 4.6 indicates the effect of precarity on support for social insurance over social assistance on the sample of formal workers. The coefficient is negative and statistically significant at the 90% confidence level.

Consistent with our theory, we find that, among people employed in the formal sector, precarity weakens support for social insurance by 96%. In contrast, column 2 of Table 4.6 examines the impact of precarity on support for social insurance over social assistance among informal workers. Recall from the theory that because informal workers are excluded from employment-based social insurance schemes, they are indifferent to the type of redistributive policy that is enacted. The results bear this logic out. The coefficient of precarity on preferred social policy is negative, but not statistically significant. Taken together these two results provide suggestive support for Hypothesis 3.

Overall, our findings are consistent with the view that precarity relates with preferences for

Table 4.6: Estimated Effect of Precarity on Support for Social Insurance

	(1) Formal Sector Only	(2) Informal Sector Only
Precarity	-0.957[+]	-0.276
	(0.553)	(0.659)
Constant	1.372**	0.668
	(0.474)	(0.593)
Observations	778	415

Note: Estimates are second-stage effects of the IV approach for participants in the formal and informal sector, respectively. Robust standard errors in parentheses. $^{+}p < 0.10$, $^{*}p < 0.05$, $^{**}p < 0.01$, $^{***}p < 0.001$.

redistribution in several ways. First, we show that precarity creates preference divisions. In line with the social policy formation literature in the Global North, we find that precarious individuals are more likely to support social assistance policies that are non-contributory in nature and distributed based on needs over employment-based social insurance. Second, we show that precarity is not a significant driver of social spending demand. This result is consistent with work on redistributive preferences in developing countries, suggesting that precarious individuals show less support for redistribution in contexts where expectations of benefiting from the welfare state are low.

Lastly, we show that informality dampens the effect of precarity on redistributive preferences. The key insight of our study is that preferences for redistribution do change in response to shifts in risk exposure. Moreover, our measure of precarity is better suited to understand the political implications of labor market risk. The formal-informal dichotomy is inadequate because preferences are formed on the basis of expectations about current and future risks, not a momentary situation like sector of employment.

4.7 Conclusion

Recent scholarship on comparative political economy has shown that an individual's exposure to unemployment risk determines preferences for the scope and size of the welfare state. Yet, scholars adapting models of redistributive politics in the developing world do not find the stated relationship to be true. We argue that this is explained by the conceptual and empirical strategy of dichotomizing

risk based on the dualist notion that the informal sector is precarious, while the formal sector is not. Because precarious work exists in both formal and informal sectors, identifying which individuals are precarious is imperative to our understanding of redistributive politics in the Global South. While intuitive, our study shows that by reversing this strategy and operationalizing precarity at the individual-level the relationship between risk and redistribution becomes clearer: individuals in risky and precarious jobs are more likely to prefer redistributive policies that can protect them from an uncertain future.

To investigate this proposition, we conducted a priming experiment in Metro Manila, Philippines. Since we cannot randomly assign "more precarity", we leverage the ongoing COVID-19 pandemic as a blunt shock that can heighten perceptions of precarity and economic vulnerability. This measure is an improvement from risk inferred using group-level characteristics like informality status since different people can react differently to the same objective threat. In addition, perceived precarity is relevant in developing countries where objective measures of job insecurity is unavailable, even to the individuals themselves.

Using an instrumental variables design, we find support that precarity does lead to divisive views about redistribution. Precarious individuals are more likely to support social assistance, while their non-precarious counterparts favor social insurance. This finding is driven by the formal sector, which is contrary to the predictions in the existing literature that formal workers always support "exclusive" contributory social insurance benefits and oppose "free" non-contributory social assistance benefits (see, e.g., Carnes and Mares, 2013, 2016; Willmore, 2014). Precarity, however, does not lead to support for more redistribution, suggesting that citizens in developing countries have low expectations of benefiting from the welfare state.

Overall, our study demonstrates that the dualist view is restrictive, especially in light of the increasingly flexible labor markets in the developing world. Future research should consider that risk is not static. Better understanding of the dynamic nature of risk will help us gain a better grasp of preference formation that takes into account shifts in precarity over time. Moreover, the link between precarity and redistributive preferences should be contextualized in relation to household

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effects. Redistributive preferences based on the individual labor market situation might be different from preferences that take into account household welfare. Additionally, further research should investigate how variations in precarity influence the linkages between politicians and voters. As we have shown, precarity is not clustered across clearly identifiable groups (like the informal and formal sectors), which has implications for coordination and collective mobilization. It is thus important to identify the conditions under which individuals are successful in translating their preferences to policy outcomes.

5. CONCLUSION

Despite the abundance of research on the persistence and growth of the informal sector, few studies have analyzed the political dynamics of informality. This limitation is, in large part, due to the entrenched view of the informal sector as a monolithic group of marginalized people. Because they tend to be either self-employed entrepreneurs or wage earners in small firms and thus socially atomized, informal workers are seldom seen as political actors. In this dissertation, I address the political dimensions of informality by examining the different and varied ways the informal sector experience and connect with the state. The main contribution of this research lays in developing theories to understand the ways in which the heterogeneity within the informal sector influence state responses. The findings in my dissertation provide important insights into the governance implications of pervasive and persistent informality in weak states.

Building on the literature of political budget cycles, the second chapter of this dissertation demonstrates how political competition shapes the tax structure in developing countries. Empirical analyses using tax data reveal the incentives of politicians to adopt short-term fiscal policy measures prior to competitive elections in order to garner political support from the informal sector. Paradoxically, as politicians commit to abstaining from enforcement of informal sector taxation (i.e., direct income tax, presumptive tax), they tend to rely on regressive instruments that indirectly tax the informal sector, thereby increasing the latter's tax burden. The findings of this chapter provide suggestive evidence of the differential effects of taxation on various groups within the informal sector.

In the third chapter, I explore the effects of the linkages between the formal and informal sector on formalization. I show that by supplying underprovided public goods, formal firms can encourage formalization through state registration. This positive effect on state legibility, however, is accompanied by a negative impact on state-building in that non-state service provision weakens citizen support for the fiscal exchange. These competing effects lead to quasi-formality wherein informal firms register but not for tax purposes. Therefore, reforms that bundle registration for

legal status and tax registration would not be effective in encouraging formalization if the effect on beliefs about the fiscal contract is stronger than the impact on legibility. The results of this chapter demonstrate the restrictiveness of the formal/informal dichotomy, and provide an explanation for why firms display differing levels of informality.

The findings in the fourth chapter reveal that labor market risk, particularly in developing countries, cannot be mapped neatly into the dualist notion that the informal sector is precarious, while the formal sector is not. By leveraging the ongoing COVID-19 pandemic as a blunt shock, I provide an individual-level measure of precarity. This measure is an improvement from risk inferred using group-level characteristics like informality status since different people can react differently to the same objective threat. By disentangling precarity from informality, I find that precarity does lead to divisive views about redistribution: precarious individuals are more likely to support social assistance, while their non-precarious counterparts favor social insurance.

Taken together, the findings in this research reveal the need for further examination of the political dynamics of informality. Building on the results discussed in chapter two, the dynamics of sub-national informal sector taxation warrant further examination. Local governments may have better information about informal sector participants in their localities and can thus be more effective in taxing parts of the revenue base that are out of the reach of national governments. As such, local politicians may have more opportunities to target informal benefits from short-term leniency to particular groups in the informal sector. Short-term reductions in tax collection may thus be more beneficial to local politicians as they reap the electoral benefits of forbearance better than their national counterparts. By considering the different dynamics of patron-client networks in the sub-national level, we might also find variation in the dependence on different sources of sub-national financing, and therefore different incentives to tax the informal sector.

The findings in chapter three reveal the increasingly interdependent relations between the formal and informal sector. A potential subject for exploration is the different strategies of the state to coordinate, manage, and support non-state service delivery. Under what conditions do formal firms become complements of the state? How might these relations affect the steps towards formality?

Additionally, future research should consider the conditions under which formal firms play a governance role and supply underprovided public goods.

Based on the results in chapter four, future work can explore preference formation that takes into account shifts in precarity over time. If labor market risk is dynamic, how might that affect the demand for redistribution? Moreover, the link between precarity and redistributive preferences should be contextualized in relation to household effects. Redistributive preferences based on the individual labor market situation might be different from preferences that take into account household welfare. Would a precarious worker still prefer social insurance over social assistance if her household has access to social security benefits?

Overall, this dissertation provides insights that improve our understanding of the nature of relations between the informal sector and the state, and opens many avenues for future research on the politics of informality.

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APPENDIX A

SUPPLEMENTARY MATERIAL FOR CHAPTER 2

A.1 Descriptive Statistics

Table A.1: Descriptive Statistics of Informal Sector Size in Election Years

		Mean	Std. Dev	Min	Max	N/n/T-bar
Contested elections = 0	overall	37.552	10.224	17.866	63.164	42
	between		10.116	17.965	63.164	28
	within		1.801	32.286	43.408	1.5
Contested elections = 1	overall	39.617	10.749	16.006	71.417	351
	between		9.956	16.399	66.194	84
	within		2.769	31.140	54.354	4.179
Competitive elections = 0	overall	39.640	10.465	16.006	67.388	237
	between		9.510	16.312	65.153	81
	within		2.938	28.759	50.521	2.926
Competitive elections = 1	overall	39.027	11.072	16.360	71.417	156
	between		10.875	16.486	66.560	54
	within		2.090	29.760	50.466	2.889

Note: The reported standard deviations reveal the variation in each respective variable relative to the previous year and the observed variation within country over time, respectively. The within number for min and max refers to the deviation from each panel's global average. N is the total number of observations, n is the number of panels (countries), and T-bar is the average number of years under observation.

Table A.2: Descriptive Statistics of Control Variables

		Mean	Std. Dev	Min	Max	N/n/T-bar
Polity score	overall	1.979	6.138	-9	10	3005
	between		4.443	-7.926	10	87
	within		4.336	-13.547	14.720	34.540
Non-tax revenue	overall	0.052	0.063	0	0.424	2092
	between		0.056	0.004	0.247	87
	within		0.030	-0.106	0.289	24.046
Logged GDP	overall	7.641	1.044	5.150	9.875	2326
	between		0.973	5.730	9.472	87
	within		0.363	6.430	8.834	26.73563
Per capita growth	overall	1.336	6.563	-50.236	91.673	2571
	between		2.089	-3.378	12.784	87
	within		6.240	-48.340	93.569	29.552
Agriculture	overall	23.835	14.939	1.819	96.577	2288
	between		13.717	4.222	57.480	87
	within		6.110	-2.083	85.812	26.299
Imports	overall	37.381	18.512	-17.139	144.616	2401
	between		15.617	9.591	81.238	87
	within		10.386	-31.009	118.319	27.598
Inflation	overall	96.537	799.365	-29.173	26762.020	2578
	between		230.451	3.134	1234.593	87
	within		764.641	-1131.948	25623.960	29.632

Note: The reported standard deviations reveal the variation in each respective variable relative to the previous year and the observed variation within country over time, respectively. The within number for min and max refers to the deviation from each panel's global average. N is the total number of observations, n is the number of panels (countries), and T-bar is the average number of years under observation.

Figure A.1: Box Plots for Countries in Different Years
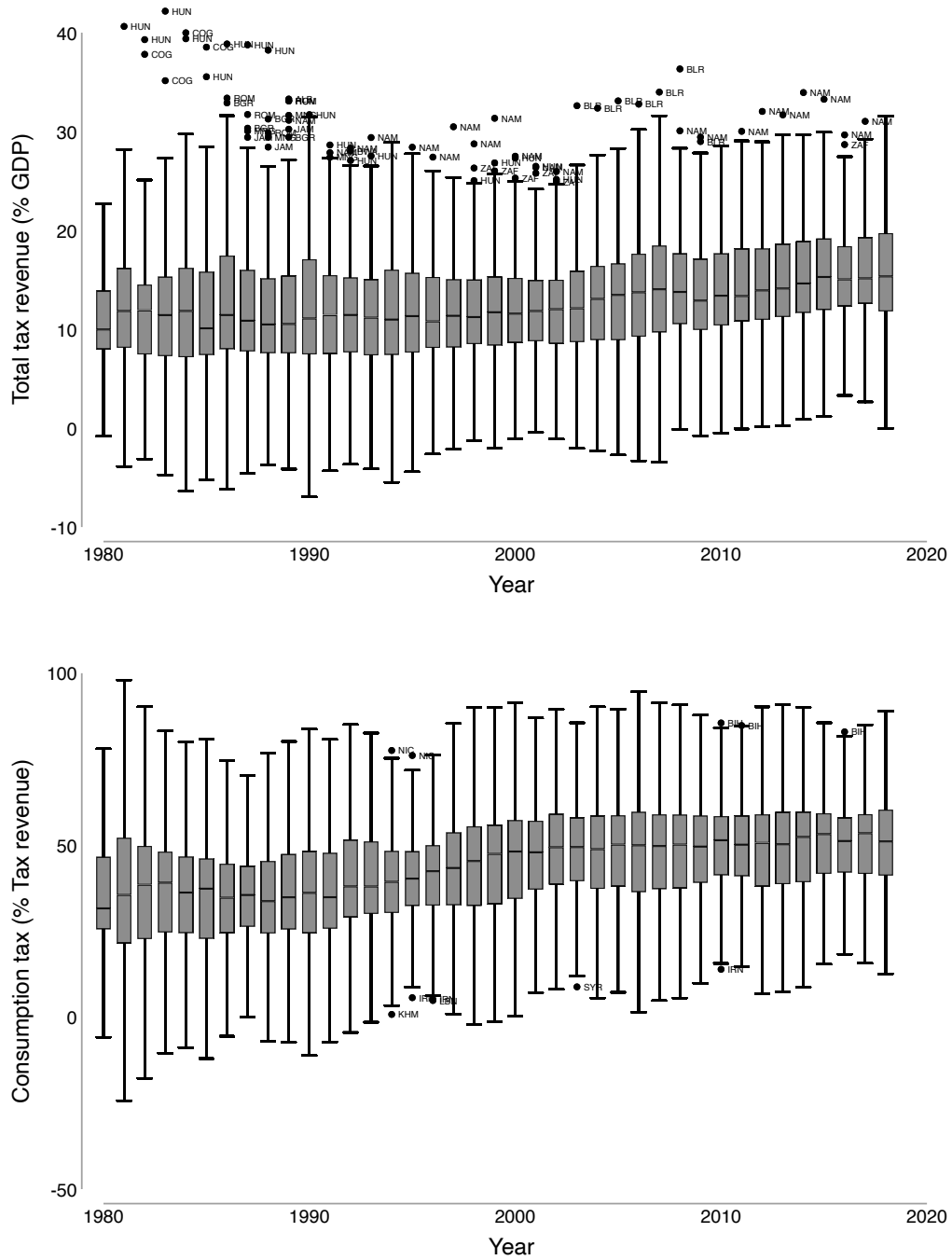
Note: The boxes indicate the lower and upper quartiles of the variable being plotted. The median is represented by a line subdividing the box. The whiskers depict the interquartile range (IQR). Outliers are labeled using ISO country codes. Values are calculated by year.

A.2 Regression Results

Table A.3: Effect of Informal Sector Size on Total Tax Revenue

	(1) Fixed-effects	(2) LDV
Total tax (T-1)	0.814***	0.948***
	(0.022)	(0.011)
Informal sector size	-0.009	0.005
	(0.040)	(0.005)
All elections=1	-0.120	-0.160*
	(0.080)	(0.086)
Constant	4.474	-0.341
	(5.135)	(0.640)
Observations	1733	1733
Countries	84	84
R^2	0.708	0.941

Note: Standard errors are reported in parentheses. Fixed-effects results are calculated with robust standard errors. Lagged dependent variable (LDV) models are estimated with clustered standard errors. Estimates include the set of control variables, but they are not reported here to conserve space. $^*p < 0.10$, $^{**}p < 0.05$, $^{***}p < 0.01$.

Figure A.2: Marginal Effects of Informal Sector Size on Total Tax Collection

(a) Contested Election   (b) Competitive Election
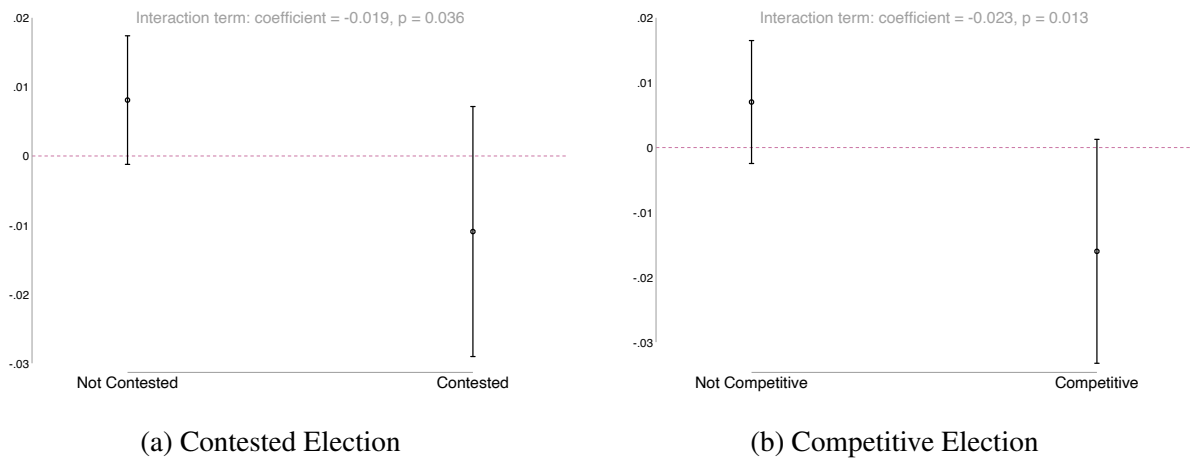
Note: Marginal effects are estimated using a lagged dependent variable model. *Contested Election* is equal to 1 if the election is multiparty and includes a legal opposition. *Competitive Election* takes the value of 1 if the government wins 60% or less of all the seats in government, and 0 otherwise.

Figure A.3: Marginal Effects of Informal Sector Size on Consumption Tax Collection
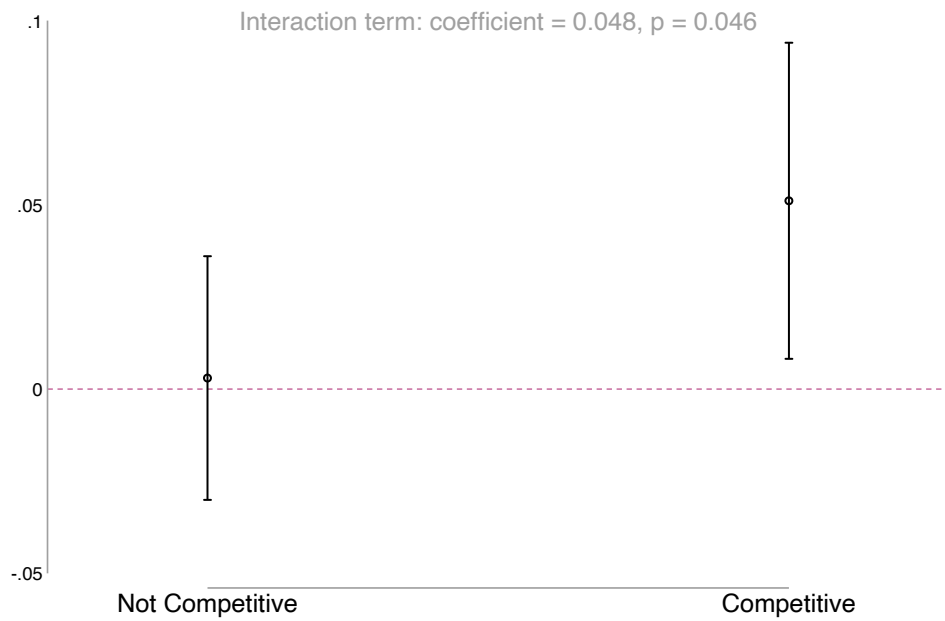
Note: Marginal effects are estimated using a lagged dependent variable model. *Political Competition* takes the value of 1 if the government wins 60% or less of all the seats in government, and 0 otherwise.

APPENDIX B

SUPPLEMENTARY MATERIAL FOR CHAPTER 3

B.1 Survey Instrument

Varieties of Informality: Evidence from the Philippines Study
Questionnaire - English

1. General Information

1.1. What year were you born? [_____] *[If year > 2003, end survey.]*
1.2. Which of the following best describes your gender?
   o Male
   o Female
1.3. What is the highest level of education you have completed?
   o No grade completed
   o Elementary school graduate (Grade 6)
   o High school graduate (Grade 10 or 4th year high school)
   o Senior high school graduate (Grade 12)
   o Some college (1st year to 4th year college or higher)
   o College graduate
   o Postgraduate (M.A./M.S./Ph.D./JD/MD)
   o Vocational
1.4. Are you the owner or the principal decision-maker in the operation of this store? *[If `No', end survey.]*
   o Yes
   o No
1.5. Do you or any of your family members contribute to any of the following? (Select all that apply.)
   Social Security Services (SSS)
   Government Service Insurance System (GSIS)
   PhilHealth (Individually Paid)
   PhilHealth (Employed)
   PhilHealth (Indigent Program)
   Private Health Insurance (HMO)
   Private Insurance (like Philam Life, Pru Life, Sun Life)

2. Store Information

2.1. In what province is your store located? In what city/municipality is your store located?
   [_____]
2.2. In which type of premise do you conduct your store's activities?
   o In my own home
   o Not in my own home but on my own land
   o In a rented space

        o   In a home belonging to a relative/acquaintance

2.3. *[Skip if `In my own home' in 2.4.]* How long does it take you to reach your store from your place of residence (one way)?
- Less than 15 minutes
- 15-30 minutes
- 31-60 minutes
- More than one hour

2.4. In what year was this store established? [_____]

2.5. What was your main reason for engaging in this business?
- Prefer to be own boss/take control of own time
- It pays more than salaried work/employee salary
- To supplement income from salaried work/employee salary
- Could not get salaried work/work as employee
- It is a family tradition
- Other (specify): [_____]

2.6. How many persons, including yourself, work in the store daily? [_____]

2.7. How many persons are salary workers/paid employees? [_____]

2.8. Based on your estimate, what is your total revenue/sales in a typical week of operation?
- Less than PhP 5,000 per week
- PhP 5,000 to PhP 13,999
- PhP 14,000 to PhP 19,999
- PhP 20,000 to PhP 29,999
- PhP 30,000 to PhP 59,999
- PhP 60,000 to PhP 149,000
- Above PhP 150,000 per week

2.9. When restocking your inventory, how do you get the stocks or products?
- I buy all my stocks from another store (like grocery, market, wholesale).
- My suppliers provide and deliver all the stocks to my store.
- I have some suppliers that provide and deliver stocks, but I buy most of my stocks from another store (like grocery, market, wholesale).

2.10.   *[Skip* if `I buy all the stocks from another store myself' in 2.8] Do you have a formal agreement with your suppliers?
- Yes, I have a formal agreement with all my suppliers.
- Yes, I have a formal agreement with only some of my suppliers.
- No, I have no formal agreement with any of my suppliers.

3. **Credit and loans**

3.1. Within the past 12 months, did you borrow money for use in your store operation?
- Yes

o No

3.2. *[Skip if `No' in 3.1.]* Where did you borrow money for use in your store operation?
(Select all that apply.)

        Family or friends
        Suppliers
        Money lender
        Bank
        Microfinancing institution
        Government
        Other (specify): [_____]

3.3. How likely or unlikely are you to apply for a business loan from the following?

	Very unlikely	Unlikely	Likely	Very likely
3.3a. Suppliers	1	2	3	4
3.3b. Money lenders	1	2	3	4
3.3c. Bank	1	2	3	4
3.3d. Microfinancing institution	1	2	3	4
3.3e. National government agency	1	2	3	4
3.3f. Local city/municipal government	1	2	3	4

4. Reasons for Informality

4.1. Do you have any of the following? (Select all that apply.) *[If checked all, end survey.]*
        Department of Trade and Industry (DTI) permit (1)
        Barangay business clearance (2)
        Mayor's business permit (3)
        Bureau of Internal Revenue (BIR) business permit (Form 1901) (4)
        Bureau of Internal Revenue (BIR) Tax Identification Number (TIN) (5)

4.2. *[Ask if (1) in 4.1 is unchecked.]* What is the main reason that you do not have a DTI permit?
o The upfront costs of getting a DTI permit are too high
o I am worried that I will pay other fees or more tax if I get a DTI permit
o I get no benefit from getting a DTI permit
o The DTI registration system is very complicated
o The DTI registration system is corrupt
o I do not know if I have to get a DTI permit
o I do not need to get a DTI permit
o I have not gotten around to it
o Other (specify): [_____]
o I refuse to answer

4.3. *[Ask if (2) in 4.1 is unchecked.]* What is the main reason that you do not have a Barangay business clearance?
- o The upfront costs of getting a Barangay clearance are too high
- o I am worried that I will pay other fees or more tax if I get a Barangay clearance
- o I get no benefit from getting a Barangay clearance
- o The Barangay registration system is very complicated
- o The Barangay registration system is corrupt
- o I do not know if I have to get a Barangay clearance
- o I do not need to get a Barangay clearance
- o I have not gotten around to it
- o Other (specify): [_____]
- o I refuse to answer

4.4. *[Ask if (3) in 4.1 is unchecked.]* What is the main reason that you do not have a Mayor's business permit?
- o The upfront costs of getting a Mayor's permit are too high
- o I am worried that I will pay other fees or more tax if I get a Mayor's permit
- o I get no benefit from getting a Mayor's permit
- o The city/municipality registration system is very complicated
- o The city/municipality registration system is corrupt
- o I do not know if I have to get a Mayor's permit
- o I do not need to get a Mayor's permit
- o I have not gotten around to it
- o Other (specify): [_____]
- o I refuse to answer

4.5. *[Ask if (4) in 4.1 is unchecked.]* What is the main reason that you do not have a BIR business permit (Form 1901)?
- o The upfront costs of getting a BIR permit are too high
- o I am worried that I will pay other fees or more tax if I get a BIR permit
- o I get no benefit from getting a BIR permit
- o The BIR registration system is very complicated
- o The BIR registration system is corrupt
- o I do not know if I have to get a BIR permit
- o I do not need to get a BIR permit
- o I have not gotten around to it
- o Other (specify): [_____]
- o I refuse to answer

4.6. How satisfied or dissatisfied are you with the way that the national government has spent the money they collect from taxes?
- o Not satisfied at all
- o Somewhat unsatisfied

   o Somewhat satisfied

   o Very satisfied

   o I refuse to answer

4.7. How satisfied or dissatisfied are you with the way that your local city/municipality government has spent the money they collect from taxes?

   o Not satisfied at all

   o Somewhat unsatisfied

   o Somewhat satisfied

   o Very satisfied

   o I refuse to answer

4.8. Are you aware of any national government program that provides support for small business owners like you?

   o Yes

   o No

4.9. *[Skip if `No' in 2.7.]* What are these programs? [_____]

4.10. How about local government programs? Are you aware of any programs from your city/municipality that provides support for small business owners like you?

   o Yes

   o No

4.11. *[Skip if `No' in 2.9.]* What are these programs? [_____]

5. Access to Services

5.1. Do you have access to the following services at your store?

	Yes, Provided by the Government	Yes, Provided by a Private Entity	No, Service is not available	I don't know
5.1a. Piped water directly to the place of your business	1	2	3	98
5.1b. Electricity from wires outside your place of business	1	2	3	98
5.1c. Trash collection	1	2	3	98
5.1d. Pipes for sewage or sewage collection	1	2	3	98
5.1e. Paved road right outside your place of business	1	2	3	98
5.1f. Street lights on the road/street of your place of business	1	2	3	98

5.1g. A primary school within a 15-minute walk of your place of business	1	2	3	98
5.1h. A clinic or doctor within a 15-minute walk of your place of business	1	2	3	98

5.2. *[For each `Yes' in 5.1.]* For each of these services that you have at your place of business, how satisfied or dissatisfied are you with that service?
  o   Not satisfied at all
  o   Somewhat unsatisfied
  o   Somewhat satisfied
  o   Very satisfied
  o   I refuse to answer

6. Taxation

6.1. Here is a list of public services. Let's assume that the national government develops a new program to provide important public services to Filipinos. Each barangay will hold a town hall meeting to ask you and your fellow citizens if you would be willing to undertake a 1% business income tax rate increase to fund the provision of the public service. For each one, how willing or unwilling are you to pay the 1% additional business income tax to receive improved services?

	Very unwilling	Somewhat unwilling	Somewhat willing	Very willing	I refuse to answer
6.1a. Roads	1	2	3	4	99
6.1b. Public transportation	1	2	3	4	99
6.1c. Utilities (like electricity, water)	1	2	3	4	99
6.1d. Education	1	2	3	4	99
6.1e. Healthcare	1	2	3	4	99
6.1f. Security	1	2	3	4	99
6.1g. Telecommunications	1	2	3	4	99
6.1h. Banks and credit institutions	1	2	3	4	99
6.1i. Social services (like SSS, GSIS, *ayuda*)	1	2	3	4	99
6.1i. Courts (the justice system)	1	2	3	4	99
6.1j. Regulation (like Department of Labor and Employment)	1	2	3	4	99

6.2. Which one of these two statements is closer to your own personal view?

Statement A: Citizens should always pay their taxes, even if they disagree with the government and its actions.
Statement B: Citizens should only pay their taxes when they agree with their government.
- o Agree very strongly with Statement A
- o Agree with Statement A
- o Agree with Statement B
- o Agree very strongly with Statement B

6.3. The government should spend more on helping the poor. To what extent do you agree or disagree with this statement?
- o Strongly agree
- o Agree
- o Disagree
- o Strongly disagree

7. Perceptions of State Capacity

7.1. Based on your best estimate, how long does it take to apply for and receive the following documents:

	7.1a. DTI Permit	7.1b. Barangay Business Permit	7.1c. Mayor's Business Permit	7.1d. BIR Business Permit (Form 1901)	7.1e. Tax ID (TIN)
Less than 1 week	1	1	1	1	1
2-4 weeks	2	2	2	2	2
2-6 months	3	3	3	3	3
More than 6 months	4	4	4	4	4
I don't know	98	98	98	98	98

7.2. How likely do you think is it that the DTI would punish people who do not have a DTI permit?
- o Very unlikely
- o Unlikely
- o Likely
- o Very likely

7.3. How likely do you think is it that the Barangay would punish people who do not have a Barangay business clearance?
- o Very unlikely

- o Unlikely
- o Likely
- o Very likely

7.4. How likely do you think is it that the local city/municipal government would punish people who do not have a Mayor's business permit?

- o Very unlikely
- o Unlikely
- o Likely
- o Very likely

7.5. How likely do you think is it that the BIR would punish people who do not have a BIR business permit (Form 1901)?

- o Very unlikely
- o Unlikely
- o Likely
- o Very likely

8. Treatment

8.1a. State Treatment *[Randomize to appear only for half of the respondents.]*

Sari-sari store owners like you may need additional credit because of COVID-19 and other economic difficulties. Please read the following information about a business loan program allows small business owners like you to borrow capital at a low-interest rate and no collateral requirement. This business loan program is funded by taxes paid to the government.

Have you heard of this program before? (Options: Yes, No)
Have you availed of this program before? (Options: Yes, No)

WHAT IS P3?

The program **Pondo sa Pagbabago at Pag-asenso** (P3) is an initiative by the **government** to assist **small business owners** like you by providing affordable business loans so you can grow your business.

HOW TO GET A LOAN

STEP 1. GO TO THE DTI
Find the **DTI** office nearest you.

STEP 2. BRING DOCUMENTS
- Copy of valid ID
  - ✓ Passport, driver's license, postal ID, voter's ID
- Copy of business registration or DTI permit
- Copy of barangay clearance
- 1 x 1 photo

checklist

STEP 3. GET APPLICATION FORM
Fill-out application form.

STEP 4. WAIT FOR THE RESULTS
Submit all documents and wait!

WHY P3?
Because of the taxes, like income tax, collected by the government, the P3 and other similar services have funds. It is important to pay taxes for the government to offer and finance services and programs for small business owners like you.

8.1b. Formal Firm Treatment *[Randomize to appear only for half of the respondents.]*

Sari-sari store owners like you may need additional credit because of COVID-19 and other economic difficulties. Please read the following information about a business loan program that allows small business owners like you to borrow capital at a low-interest rate and no collateral requirement. This business loan program is funded by the profits earned by the privately-owned corporation, Puregold.

Have you heard of this program before? (Options: Yes, No)
Have you availed of this program before? (Options: Yes, No)

WHAT IS TNAP?

The program **Tindahan ni Aling Puring Puhunan Plus** (TNAP) is an initiative by **Puregold** to assist **small business owners** like you by providing affordable business loans so you can grow your business.

HOW TO GET A LOAN

STEP 1. GO TO PUREGOLD

Find the **Puregold** supermarket nearest you.

STEP 2. BRING DOCUMENTS

- Copy of valid ID
  - ✓ Passport, driver's license, postal ID, voter's ID
- Copy of business registration or DTI permit
- Copy of barangay clearance
- 1 x 1 photo

STEP 3. GET APPLICATION FORM

Fill-out application form.

STEP 4. WAIT FOR THE RESULTS

Submit all documents and wait!

WHY TNAP?

This program is brought to you by Puregold so they can be your partner in your business. The growth and success of your store is beneficial to Puregold because small business owners like you are one of the biggest clients of the supermarket.

8.2. Which of the following provides credit loans for small business owners like you?
- o   Government
- o   Private business

9. Intent to Formalize and Tax Morale

9.1. How likely or unlikely are you to apply for a DTI permit?
- o Very unlikely
- o Unlikely
- o Likely
- o Very Likely

9.2. How likely or unlikely are you to apply for a Barangay business clearance?
- o Very unlikely
- o Unlikely
- o Likely
- o Very Likely

9.3. How likely or unlikely are you to apply for a Mayor's business permit?
- o Very unlikely
- o Unlikely
- o Likely
- o Very Likely

9.4. How likely or unlikely are you to apply for a BIR business permit (Form 1901)?
- o Very unlikely
- o Unlikely
- o Likely
- o Very Likely

9.5. How likely or unlikely are you to apply for a business loan from the following?

	Very unlikely	Unlikely	Likely	Very likely
9.5a. Suppliers	1	2	3	4
9.5b. Money lenders	1	2	3	4
9.5c. Bank	1	2	3	4
9.5d. Microfinancing institution	1	2	3	4
9.5e. National government agency	1	2	3	4
9.5f. Local city/municipal government	1	2	3	4

9.6. Which one of these two statements is closer to your own personal view?
Statement A: Citizens should always pay their taxes, even if they disagree with the government and its actions.
Statement B: Citizens should only pay their taxes when they agree with their government.
- o Agree very strongly with Statement A
- o Agree with Statement A

    o Agree with Statement B

    o Agree very strongly with Statement B

9.7. Think about other sari-sari stores in your neighborhood. How likely or unlikely do you think is that they regularly pay taxes on their business?

    o Very unlikely

    o Unlikely

    o Likely

    o Very likely

9.8. How important do you think are taxpayer-funded public services to small business owners like you?

    o Very important

    o Somewhat important

    o Somewhat not important

    o Not important at all

9.9. Here is a list of public services. Let's assume that the national government develops a new program to provide important public services to Filipinos. Each barangay will hold a town hall meeting to ask you and your fellow citizens if you would be willing to undertake a 1% business income tax rate increase to fund the provision of the public service. For each one, how willing or unwilling are you to pay the 1% additional business income tax to receive improved services?

	Very unwilling	Somewhat unwilling	Somewhat willing	Very willing	I refuse to answer
9.9a. Roads	1	2	3	4	99
9.9b. Public transportation	1	2	3	4	99
9.9c. Utilities (like electricity, water)	1	2	3	4	99
9.9d. Education	1	2	3	4	99
9.9e. Healthcare	1	2	3	4	99
9.9f. Security	1	2	3	4	99
9.9g. Telecommunications	1	2	3	4	99
9.9h. Banks and credit institutions	1	2	3	4	99
9.9i. Social services (like SSS, GSIS, *ayuda*)	1	2	3	4	99
9.9i. Courts (the justice system)	1	2	3	4	99
9.9j. Regulation (like Department of Labor and Employment)	1	2	3	4	99

10. Compensation

10.1. Thank you for participating in our research. Please choose the method of compensation. (Please note that you may only receive the compensation once, and fraudulent responses are invalid.)
- o GCash
- o Globe/TMobile load
- o Smart/Talk 'N Text load

10.2. Please enter your cellphone number for the compensation.

B.2 Regression Results

Table B.1: Estimated Effect of Formal Firm vs. State Treatment on Formalization Outcomes

	(1) Business Registration	(2) District Permit	(3) Local Permit	(4) Tax Registration	(5) Formalization	(6) Low Formalization	(7) High Formalization
Formal Firm	-0.132	0.051	-0.140	-0.115	-0.105	-0.061	-0.120
	(0.096)	(0.141)	(0.093)	(0.088)	(0.078)	(0.091)	(0.084)
Constant	2.891***	3.035***	2.923***	2.833***	2.895***	2.885***	2.873***
	(0.069)	(0.106)	(0.067)	(0.064)	(0.057)	(0.067)	(0.060)
Observations	265	115	286	329	331	280	330
R^2	0.007	0.001	0.008	0.005	0.005	0.002	0.006

Note: Robust standard errors are reported in parentheses. $^*p < 0.10$, $^{**}p < 0.05$, $^{***}p < 0.01$. The first four outcomes are based on a four-point Likert item, ranging from 1 to 4. The last three outcomes are constructed indices. Formalization combines the first four constituent outcomes. Low formalization combines business registration (for legal status) and district permit registration. High formalization combines local government permit registration and tax registration.

Table B.2: Estimated Effect of Formal Firm vs. State Treatment on Formalization Outcomes

	(1) Business Registration	(2) District Permit	(3) Local Permit	(4) Tax Registration	(5) Formalization	(6) Low Formalization	(7) High Formalization
Formal Firm	-0.175	0.092	-0.241**	-0.217**	-0.174*	-0.065	-0.233**
	(0.121)	(0.161)	(0.114)	(0.109)	(0.098)	(0.118)	(0.104)
Constant	2.935***	3.108***	3.000***	2.905***	2.963***	2.907***	2.953***
	(0.091)	(0.127)	(0.082)	(0.083)	(0.074)	(0.090)	(0.078)
Observations	181	82	193	220	220	189	220
R^2	0.011	0.004	0.023	0.018	0.014	0.002	0.022

Note: Robust standard errors are reported in parentheses. $^*p < 0.10$, $^{**}p < 0.05$, $^{***}p < 0.01$. The first four outcomes are based on a four-point Likert item, ranging from 1 to 4. The last three outcomes are constructed indices. Respondents who failed the manipulation check are excluded.

Table B.3: Estimated Effect of Formal Firm vs. State on Willingess to Pay Tax for Services

	(1) Services, Index	(2) Roads	(3) Public Transportation	(4) Utilities	(5) Education	(6) Healthcare	(7) Security	(8) Telecom	(9) Credit Institutions	(10) Social Services	(11) Judiciary	(12) Regulation
Formal Firm	-0.237**	-0.216*	-0.253**	-0.275**	-0.224*	-0.184	-0.369***	-0.357***	-0.157	-0.147	-0.098	-0.122
	(0.093)	(0.111)	(0.118)	(0.117)	(0.117)	(0.113)	(0.117)	(0.118)	(0.130)	(0.107)	(0.121)	(0.114)
Constant	1.391***	1.771***	1.539***	1.720***	1.692***	1.678***	1.909***	2.230***	1.553***	1.539***	1.391***	1.409***
	(0.227)	(0.247)	(0.227)	(0.213)	(0.260)	(0.248)	(0.263)	(0.287)	(0.229)	(0.232)	(0.234)	(0.241)
Observations	189	173	177	181	182	182	181	182	169	174	167	172
R^2	0.392	0.329	0.316	0.324	0.284	0.299	0.274	0.200	0.281	0.398	0.349	0.359

Note: Robust standard errors are reported in parentheses. $^*p < 0.10$, $^{**}p < 0.05$, $^{***}p < 0.01$. Each model includes pre-treatment responses to the same questions to control for latent demand for services. Respondents who failed the manipulation check are excluded.

SUPPLEMENTARY MATERIAL FOR CHAPTER 4

C.1 Alternative Specification of Precarity

As discussed in the section on the measurement of precarity, we devise an alternative opera-tionalization of precarity that measures job insecurity, namely, the likelihood of involuntary job loss. To do so, we ask the survey participants the following question:[1]

> Would you say that your job is very secure, quite secure, a bit insecure or very insecure?
> (A secure job, for example, is a regular job you cannot be easily fired from.)
>
> (1) Very secure
> (2) Quite secure
> (3) A bit insecure
> (4) Very insecure

For ease of interpretation, we generate a binary variable that is equal to 0 (not precarious) if the respondent answers "very secure" and "quite secure" and 1 (precarious) if the response is "a bit insecure" or "very insecure". We label this variable $Insecurity$. As illustrated in Figure C.1, the mean job insecurity is 0.37 for the control group and 0.46 for the treatment group. The difference in means is statistically significant, where the p-value is 0.0048.

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[1] A similarly worded question of cognitive job insecurity can be found in some of the surveys fielded by the International Social Survey Program and the European Social Survey.

Figure C.1: Group Means of Precarity by COVID-19 Prime Treatment Status
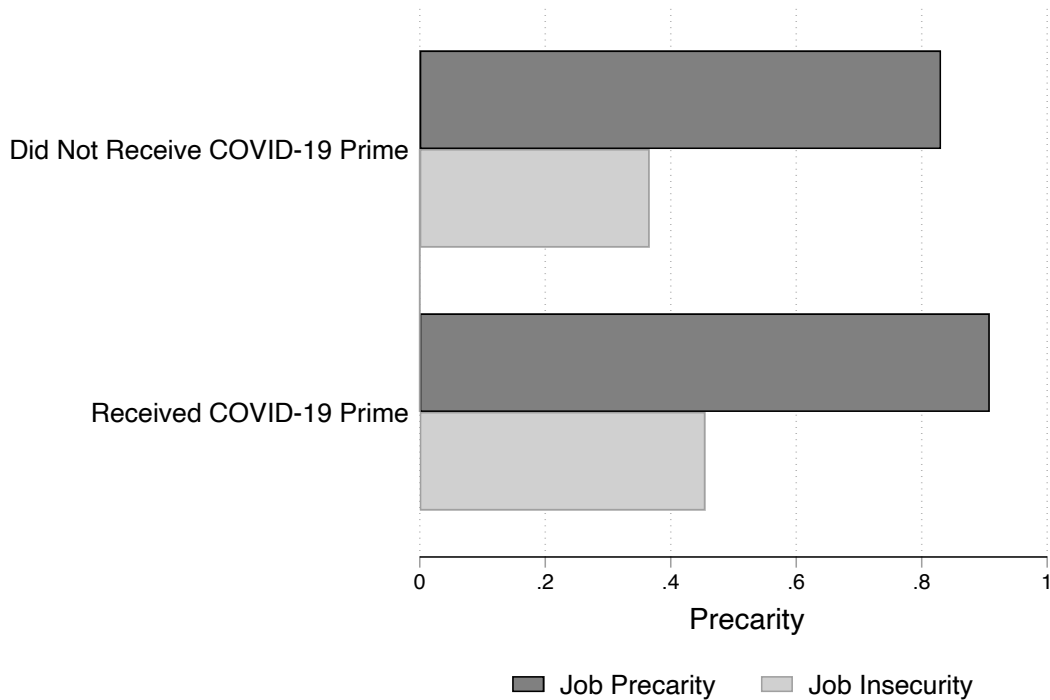
Note: Treatment refers to the receipt of the randomly assigned COVID-19 prime. Job precarity captures the difficulty of finding a comparable job. Job insecurity measures the likelihood of losing current job. The differences in means between the treatment and control groups are statistically significant at the 95% confidence level.

We estimate Equations (4.2) and (4.3) with job insecurity as the endogenous regressor and report the results in Table C.1. The first column corresponds to the causal effect of the randomized COVID prime on job insecurity. The coefficient of 0.089 indicates that the treatment increases perceptions of precarity by 8.9 percentage points. This effect is significant, with a p-value of 0.005. In columns 2 and 3, we report the estimated effects of job insecurity on redistributive preferences. We find that the results in Table 4.5 are robust to this alternative specification of precarity. Specifically, we confirm that job insecurity reinforces support for social assistance. It, however, has no impact on social spending demand.

Table C.2 reports the results for the sub-samples of participants in the formal and informal sector, respectively. The coefficients in the first and third columns are the estimated intent-to-treat

Table C.1: Estimated Effect on Preferences for Redistribution

	(1) IV-First Stage	(2) Prefers Social Insurance	(3) Prefers More Redistribution
Received COVID-19 Prime	0.089**		
	(0.031)		
Insecurity		-0.809$^+$	0.013
		(0.477)	(0.254)
Constant	0.366***	0.852***	0.849***
	(0.022)	(0.197)	(0.105)
Observations	976	976	976

Note: Column 1 provides the estimated first-stage effect of the IV approach. The local average treatment effect for the dependent variable specified are reported in columns 2 and 3. Robust standard errors in parentheses. $^+p < 0.10$, $^*p < 0.05$, $^{**}p < 0.01$, $^{***}p < 0.001$.

effect of assignment to treatment on job insecurity. While COVID prime receipt increased job insecurity among participants in the formal sector, it has no impact on those in the informal sector. Additionally, the coefficients in columns 2 and 4 are not statistically different from zero, indicating that job insecurity has no effect on preferences for redistributive policy among the respective group of formal and informal workers.

Table C.2: Estimated Effect on Support for Social Insurance

	Formal Sector Only		Informal Sector Only	
	(1) IV-First Stage	(2) IV-Second Stage	(3) IV-First Stage	(4) IV-Second Stage
Received COVID-19 Prime	0.082*		0.087	
	(0.037)		(0.056)	
Insecurity		-1.183		-0.130
		(0.731)		(0.664)
Constant	0.299***	0.956***	0.517***	0.517
	(0.025)	(0.250)	(0.041)	(0.374)
Observations	661	661	315	315

Note: Columns 1 and 3 report the first-stage effect of the IV approach for participants employed in the formal and informal sector, respectively. The values in columns 2 and 4 are the estimates of the local average treatment effect for each sub-sample. Robust standard errors in parentheses. $^+p < 0.10$, $^*p < 0.05$, $^{**}p < 0.01$, $^{***}p < 0.001$.

We do recognize that precarity is multi-dimensional. Arguably, an individual with insecure employment could identify as not precarious if she expects job continuity elsewhere.[2] As such, we generate a precarity variable that takes into consideration both the probability of job loss and finding a comparable job. We interact $Precarity$ and $Insecurity$, where the value of 1 indicates secure employment (i.e., low likelihood of losing current job) and stable prospects (i.e., high likelihood of finding a comparable job). We label this variable $Precarity \times Insecurity$. The results in Tables C.3 and C.4 are consistent with the findings reported in the results section of the main text.

Table C.3: Estimated Effect on Preferences for Redistribution

	(1) IV-First Stage	(2) Prefers Social Insurance	(3) Prefers More Redistribution
Received COVID-19 Prime	0.105***		
	(0.031)		
Precarity × Insecurity		-0.682[+]	0.011
		(0.374)	(0.214)
Constant	0.337***	0.786***	0.850***
	(0.021)	(0.147)	(0.084)
Observations	976	976	976

Note: Column 1 provides the estimated first-stage effect of the IV approach. The local average treatment effect for the dependent variable specified are reported in columns 2 and 3. Robust standard errors in parentheses. $^{+}p < 0.10$, $^{*}p < 0.05$, $^{**}p < 0.01$, $^{***}p < 0.001$.

C.2 Alternative Specification of Informality

We recognize that many developing countries lack the state capacity to enforce taxation. As such, we create an alternative measure of informality that is centered on state registration. A respondent is employed in the informal sector if she lacks an employment contract or a business registration. This coding choice is informed by the observation that informal micro-enterprises in the Global South often exhibit varying levels of informality, in which some conform to formal rules and regulations in some regards but not others (Williams, Shahid and Martínez 2016). Additionally, firms can also

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[2]In our sample, 21% of respondents with insecure jobs classify their employment as not precarious. That is, while they say that their current job is insecure, they expect that finding a comparable or better job is easy.

Table C.4: Estimated Effect on Support for Social Insurance

	Formal Sector Only		Informal Sector Only	
	(1) IV-First Stage	(2) IV-Second Stage	(3) IV-First Stage	(4) IV-Second Stage
Received COVID-19 Prime	0.087*		0.127*	
	(0.036)		(0.056)	
Precarity $\times$ Insecurity		-1.108$^+$		-0.089
		(0.649)		(0.448)
Constant	0.278***	0.911***	0.470***	0.492*
	(0.025)	(0.210)	(0.041)	(0.242)
Observations	661	661	315	315

Note: Columns 1 and 3 report the first-stage effect of the IV approach for participants employed in the formal and informal sector, respectively. The values in columns 2 and 4 are the estimates of the local average treatment effect for each sub-sample. Robust standard errors in parentheses. $^+p < 0.10$, $^*p < 0.05$, $^{**}p < 0.01$, $^{***}p < 0.001$.

exploit the intensive margin of informality by hiring workers "off the books", wherein the firm is formal but the workers are not (Ulyssea 2018). The registration-based variable $Formal2$ is thus equal to 1 if the respondent is employed in the formal sector, and 0 if she is in the informal sector.

The coefficients in columns 2 and 4 of Table C.5 correspond to the causal effect of precarity on preferred redistributive policy for respondents in the formal and informal sector, respectively. While precarity engenders divided views on social insurance within the formal sector, it does not have a divisive impact within the informal sector. These results are consistent with the findings in Table 4.6 in the results section of the paper.

Table C.5: Estimated Effect on Support for Social Insurance

	Formal Sector Only		Informal Sector Only	
	(1) IV-First Stage	(2) IV-Second Stage	(3) IV-First Stage	(4) IV-Second Stage
Received COVID-19 Prime	0.094***		0.038	
	(0.024)		(0.030)	
Precarity		-0.714[+]		-0.900
		(0.414)		(1.524)
Constant	0.810***	1.142**	0.885***	1.267
	(0.019)	(0.356)	(0.024)	(1.379)
Observations	815	815	378	378

Note: Columns 1 and 3 report the first-stage effect of the IV approach for participants employed in the formal and informal sector, respectively. The values in columns 2 and 4 are the estimates of the local average treatment effect for each sub-sample. Robust standard errors in parentheses. $^{+}p < 0.10$, $^{*}p < 0.05$, $^{**}p < 0.01$, $^{***}p < 0.001$.