

Discussion Paper Series

IZA DP No. 18449

March 2026

Taxation, Informality, and Labor Market Responses: What Do We Really Know?

Gustavo J. Canavire-Bacarreza

World Bank and IZA@LISER

Susana Herrero-Olarte

Universidad de Barcelona

Yeon Soo Kim

World Bank

The IZA Discussion Paper Series (ISSN: 2365-9793) ("Series") is the primary platform for disseminating research produced within the framework of the IZA@LISER Network, an unincorporated international network of labour economists coordinated by the Luxembourg Institute of Socio-Economic Research (LISER). The Series is operated by LISER, a Luxembourg public establishment (établissement public) registered with the Luxembourg Business Registers under number J57, with its registered office at 11, Porte des Sciences, 4366 Esch-sur-Alzette, Grand Duchy of Luxembourg.

Any opinions expressed in this Series are solely those of the author(s). LISER accepts no responsibility or liability for the content of the contributions published herein. LISER adheres to the European Code of Conduct for Research Integrity. Contributions published in this Series present preliminary work intended to foster academic debate. They may be revised, are not definitive, and should be cited accordingly. Copyright remains with the author(s) unless otherwise indicated.



Taxation, Informality, and Labor Market Responses: What Do We Really Know?*

Abstract

This paper critically reviews the empirical and structural literature on the effects of income taxation on informal economic activity. Although labor taxation has been widely studied in relation to labor market outcomes, evidence linking income taxes to informality remains fragmented and uneven across countries. Synthesizing findings from both developed and developing economies, the review shows that income taxes tend to have limited effects on formal employment but significant impacts on labor informality, especially in developing and emerging economies with weak enforcement, fragile institutions, and high labor market vulnerability. Estimated elasticities of informality with respect to income taxation generally range between 3 and 5 percent, with average effects around 3.5 percent in countries such as Brazil and South Africa. However, the literature is disproportionately focused on high-income countries and relies largely on reduced-form empirical approaches, limiting its ability to capture behavioral responses, long-run dynamics, and institutional heterogeneity. Standard theoretical models, typically grounded in labor supply frameworks, often fail to treat informality as an endogenous margin of adjustment under weak compliance and regulatory capacity. As a result, existing studies may overstate revenue gains and understate distributional impacts. This review highlights key methodological and conceptual gaps and calls for integrated analytical frameworks that explicitly incorporate informality, enforcement capacity, and behavioral responses in the evaluation of income tax policy.

JEL classification

H22, H24, H26, J08, J21, J46, O17

Keywords

income taxation, labor informality, developing economies, behavioral responses, labor markets, fiscal policy, critical review

Corresponding author

Gustavo J. Canavire Bacarreza

gcanavire@worldbank.org

* The views expressed in this paper are those of the authors and do not necessarily reflect the views of the World Bank, its Board of Directors, or the countries they represent. The authors used AI-assisted tools for language editing and proofreading. This paper is part of the work of the Poverty and Equity Global Solutions Group on Fiscal Equity at the Poverty and Equity Global Practice of the World Bank. The authors remain solely responsible for the content, interpretations, and any remaining errors.

1. Introduction

Informal economic activity remains a defining feature of labor markets in much of the developing world. Despite sustained economic growth in many regions and repeated waves of fiscal and labor market reforms, a large share of workers continue to operate outside formal regulatory and tax systems. Informality reflects deep structural characteristics of labor markets, including limited enforcement capacity, weak institutions, low productivity, and restricted access to social protection (Schneider and Enste 2002; Perry et al. 2007). As a result, informality is closely linked to persistent income inequality, poverty, and constrained fiscal capacity.

Within this context, income taxation occupies a central and controversial role. Income taxes, defined as taxes levied directly on individual labor income, are a cornerstone of modern fiscal systems and a primary instrument for redistribution and revenue mobilization. Unlike payroll taxes, which are typically earmarked for social security and shared between employers and employees, income taxes directly reduce workers' net earnings and therefore influence labor supply, compliance decisions, and participation in formal employment. In developed economies, income taxation is generally characterized by broad bases, relatively high compliance, and strong enforcement. In developing countries, by contrast, income tax systems tend to be narrower, less progressive, and more weakly enforced, reflecting administrative constraints and the prevalence of informal employment.

The coexistence of income taxation and widespread informality creates a fundamental tension for fiscal policy. On the one hand, income taxes are essential for financing public goods, reducing inequality, and enhancing social insurance. On the other hand, when enforcement is weak and labor markets are segmented, higher income taxes may incentivize workers and firms to evade taxation by shifting into informal arrangements. Early theoretical contributions emphasized this trade-off, arguing that higher tax rates increase incentives for tax evasion and informal labor use, particularly when the probability of detection is low (Chamley 1976; Leamer 1974). Subsequent work has reinforced the importance of institutional quality, highlighting how corruption, bureaucratic inefficiencies, and fragile legal frameworks amplify the relationship between taxation and informality (Friedman et al. 2000; Gordon and Li 2009).

Empirical evidence reviewed in this paper underscores stark differences between developed and developing countries. Income taxes are consistently higher and more stable in developed economies, while they remain lower, and increase more gradually, over time in developing contexts. At the same time, informality rates are substantially higher in the latter, suggesting that similar tax instruments operate through fundamentally different channels depending on institutional and labor market conditions. These differences raise serious concerns about the external validity of evidence derived primarily from high income countries and its applicability to settings where informality serves as a primary margin of labor market adjustment rather than an exception.

Understanding how income taxes affect informal economic activity is therefore central to both economic analysis and policy design. Yet, as this paper argues, the existing literature provides an incomplete and potentially misleading picture of this relationship, calling for a systematic and critical reassessment of both its empirical findings and theoretical underpinnings.

Rather than attempting to estimate a single causal parameter, this paper adopts a critical review approach aimed at evaluating the strength, scope, and limitations of the existing evidence. The objective is not only to summarize what the literature finds, but also to interrogate how those findings are produced, the contexts in which they apply, and the assumptions on which they rest.

The paper pursues four main objectives. First, it synthesizes empirical findings on the relationship between income taxation and labor informality across a diverse set of countries and time periods. The reviewed evidence spans developed economies, upper-middle-income countries, and a smaller set of developing contexts in which informality plays a dominant role in labor market dynamics. Second, the paper critically evaluates the methodologies employed in this literature. While many studies rely on quasi-experimental designs such as difference-in-differences or panel data techniques, others employ structural models that explicitly incorporate informality, firm heterogeneity, and labor market frictions (Hsieh and Klenow 2014; Kleven et al. 2009).

Assessing the relative strengths and limitations of these approaches is crucial for interpreting the reported elasticities and policy conclusions. Third, the paper identifies major gaps in the evidence base, most notably the scarcity of studies focusing on low-income countries and fragile institutional environments. Given that informality is most prevalent precisely in these contexts, this imbalance raises concerns about the generalizability of existing results. Finally, the paper seeks to derive implications for tax policy and future research by emphasizing the role of behavioral responses, such as shifts between formal employment, informal work, and self-employment, in shaping the distributional and fiscal effects of income tax reforms.

The reviewed literature covers a wide range of country contexts. Most empirical analyses focus on high-income economies, including Germany, France, Italy, the United States, the United Kingdom, Japan, Canada, Australia, and the Nordic countries. A smaller but important subset examines upper-middle-income and emerging economies, including Brazil, Colombia, Mexico, South Africa, Russia, and China. In contrast, evidence from low-income countries is extremely limited, representing a major gap given the scale of informality in those settings.

This paper adopts a critical review methodology. Rather than aggregating results mechanically, it evaluates the internal validity of empirical strategies, the realism of modeling assumptions, and the extent to which institutional context and enforcement capacity are incorporated into the analysis. Particular attention is paid to whether informality is treated as an endogenous behavioral choice or as a residual outcome.

The remainder of the paper is structured as follows. Section 2 develops the theoretical framework linking income taxation and informality, critically examining standard labor supply models and

informality specific mechanisms. Section 3 reviews the empirical evidence, organizing findings by country context and thematic focus while maintaining a primarily descriptive stance. Section 4 provides a critical analysis of the literature, highlighting methodological limitations, contextual gaps, and inconsistencies between theory and evidence. Section 5 discusses policy implications and outlines directions for future research. Section 6 concludes.

2. Theoretical Framework

The theoretical analysis of income taxation and labor market behavior is traditionally grounded in the standard labor supply framework, which models individuals' decisions as a trade-off between leisure and consumption. In this framework, changes in income taxation affect labor supply through two opposing channels: the substitution effect and the income effect (Blundell and MaCurdy 1999).

The substitution effect arises when an increase in income tax rates reduces the net wage, thereby increasing the relative price of leisure. Holding income constant, individuals are expected to reduce labor supply, as working becomes less attractive relative to leisure. Conversely, the income effect reflects the reduction in real disposable income caused by higher taxes. If leisure is a normal good, individuals may respond by increasing labor supply in order to compensate for the income loss. The net effect of income taxation on labor supply is therefore theoretically ambiguous and depends on the relative strength of these two effects.

While this framework has provided a useful benchmark for analyzing labor supply responses in developed economies, its applicability to contexts characterized by widespread informality is limited. First, the model implicitly assumes that individuals can freely adjust hours worked or exit the labor market altogether. In developing economies, where labor income often constitutes the primary or sole source of livelihood, the option of withdrawing from the labor market is frequently infeasible. As noted by Blundell and MaCurdy (1999), the substitution effect is more difficult to realize when workers face binding income constraints and limited access to social insurance. Under such conditions, reductions in net wages may lead workers to accept lower quality jobs rather than reduce labor supply.

Second, standard labor supply models assume that all labor supplied is formal and subject to taxation. This assumption is particularly restrictive in environments where informal employment represents a large share of total labor. When informality is available as an alternative margin of adjustment, individuals facing higher income taxes may respond not by reducing labor supply, but by reallocating labor from formal to informal activities. In this sense, informality introduces an additional behavioral margin that is absent from canonical labor supply models, fundamentally altering the predicted response to income taxation.

In this regard, factors such as company size (Portes & Haller, 2004), productivity (Levy, 2008), and access to credit (Mitra, 2017) play a critical role.

As a result, while the labor supply framework remains useful for understanding responses along the intensive and extensive margins in formal labor markets, it provides an incomplete account of how income taxation affects labor allocation in economies where informality is pervasive.

Recognizing the limitations of standard labor supply theory, a complementary strand of the literature explicitly models informality as a response to taxation and regulation. Early theoretical contributions emphasize that higher income taxes increase incentives for tax evasion and informal labor arrangements, particularly when the probability of detection is low and enforcement is weak (Chamley 1976; Learner 1974). In these models, informality emerges as a cost-saving strategy that allows workers and firms to avoid tax liabilities while continuing economic activity.

Subsequent work has highlighted the central role of institutions in shaping the relationship between income taxation and informality. Gordon and Li (2009) argue that weak fiscal capacity, limited information, and poor enforcement constrain governments' ability to tax income effectively, leading to a self-reinforcing equilibrium in which high informality undermines revenue collection and weak revenue collection perpetuates informality. Similarly, Schneider and Enste (2002) document how corruption, bureaucratic inefficiencies, and complex regulations are systematically associated with higher levels of informal economic activity.

A key theoretical distinction in this literature concerns whether informality is voluntary or involuntary. In voluntary informality models, workers and firms actively choose informal arrangements because the benefits of tax evasion outweigh the expected costs of detection and penalties. In involuntary informality models, individuals are excluded from formal employment due to limited labor demand, skill mismatches, or regulatory barriers, and are pushed into informal activities as a last resort. While both mechanisms may coexist, their policy implications differ substantially. If informality is primarily voluntary, reducing income tax rates or strengthening enforcement should lower informality. If it is largely involuntary, tax reductions alone may have limited effects unless accompanied by measures that expand formal employment opportunities.

The reviewed literature suggests that in several emerging economies informality exhibits a strong voluntary component. For example, evidence from Russia indicates that increases in informality are better explained by institutional and regulatory changes—such as dismissal costs, overtime rules, and union power—than by trade liberalization alone. In this context, income taxation interacts with labor regulations to shape incentives for remaining outside the formal sector.

Despite these advances, many theoretical models of informality still treat institutional quality and enforcement capacity as exogenous parameters, rather than as endogenous features shaped by fiscal policy itself. This limits their ability to capture feedback loops between taxation, informality, and state capacity, particularly in developing economies.

2.1 Contextual Factors, Heterogeneity, and Theoretical Limitations

Beyond individual labor supply decisions and institutional quality, the impact of income taxation on informality is mediated by a range of contextual and structural factors. Firm characteristics such

as size, productivity, and access to credit play a crucial role in determining whether economic activity can remain formal in the presence of higher taxes. Small firms and low-productivity enterprises are more likely to operate informally, as they face tighter margins and greater difficulty complying with tax and regulatory requirements (Hsieh and Klenow 2014). Limited access to credit further constrains firms' ability to absorb higher tax burdens, increasing incentives to evade taxation.

Worker heterogeneity also matters. Groups with weaker bargaining power in the labor market—such as women, youth, migrants, and workers without formal education—are disproportionately affected by shifts toward informality. These workers are more likely to accept informal arrangements due to limited outside options and social or cultural constraints (Bosch and Maloney 2007; Perry et al. 2007). From a theoretical perspective, this implies that income taxation may have heterogeneous effects across demographic groups, even when average elasticities appear modest.

Another important theoretical limitation concerns dynamic and behavioral responses. Most models focus on static adjustments in labor allocation, overlooking how income taxation may affect productivity, motivation, and human capital accumulation over time. The reviewed literature suggests that higher labor taxes can reduce worker motivation and productivity in the medium term, potentially leading to higher prices and lower output. At the same time, firms may respond by investing in productivity-enhancing technologies or reorganizing production, partially offsetting these effects. Standard theoretical models rarely incorporate these dynamic responses explicitly, limiting their relevance to long-term policy analysis.

More broadly, the theoretical literature tends to overemphasize substitution effects derived from formal labor supply models, while underestimating the role of informality as an adjustment margin in developing economies. By assuming high compliance, effective enforcement, and smooth labor market adjustments, these models risk mischaracterizing the true impact of income taxation in settings where informality is the norm rather than the exception.

3. Empirical Literature Review: Evidence on Income Taxation and Informality

The empirical literature examining the effects of income taxation on labor market outcomes and informality is extensive but unevenly distributed across countries and methodologies⁵.

Geographically, the literature is dominated by high-income countries, particularly members of the OECD and Western Europe, including Germany, France, Italy, the United Kingdom, the United States, Japan, Canada, Australia, and the Nordic countries (Blundell and MaCurdy 1999; Nickell and Bell 1997; Pissarides 1998). A smaller but important subset of studies focuses on upper-

⁵ The 67 studies reviewed span several decades, with early contributions dating back to the 1980s and a strong concentration of publications between 2012 and 2022. Most empirical analyses rely on data from the 1990s and 2000s, a period marked by major labor market reforms, tax restructuring, and institutional change across both developed and developing economies.

middle-income and emerging economies, notably in Latin America (Brazil, Colombia, Argentina, Mexico, and Chile), Central and Eastern Europe, South Africa, Russia, and China (Bosch and Maloney 2007; Kugler and Kugler 2002; El Badaoui and Magnande 2017; Ulyssea 2018). Evidence from low-income countries remains extremely scarce, despite the prevalence of informality in those contexts.

Methodologically, reduced-form empirical approaches dominate the literature. Common techniques include ordinary least squares (OLS) regressions, fixed- and random-effects panel models, difference-in-differences (DiD) estimators exploiting tax reforms, probit models for participation and informality decisions, and instrumental variable approaches such as two-stage least squares (2SLS) (Anderson and Meyer 2000; Kugler et al. 2017). A smaller set of studies employs regression discontinuity designs (RDD) to exploit eligibility thresholds in tax or transfer policies (Saez et al. 2019). Complementing these empirical approaches, several papers rely on structural models—including dynamic stochastic general equilibrium (DSGE) models, computable general equilibrium (CGE) models, and search-and-matching frameworks—that explicitly incorporate informality, firm heterogeneity, and wage bargaining (Kleven et al. 2009; Ulyssea 2018). Across this heterogeneous body of work, informality is not always the primary outcome of interest. Many studies focus on employment, wages, or labor supply responses and consider informality only indirectly.

3.1 Evidence from Developed Economies

Empirical evidence from developed economies generally finds that income taxation has limited effects on formal employment levels but can influence labor market participation, unemployment, and non-standard work arrangements. Studies analyzing OECD and Western European countries typically examine long time horizons, often spanning several decades, which allows for the identification of medium- and long-term labor market responses to changes in income taxation (Blundell and MaCurdy 1999; Nickell and Bell 1997).

Along the intensive margin, estimated elasticities of labor supply with respect to income taxation—measured in terms of hours worked—are relatively small, typically ranging from 0.18 percent to 1.8 percent (Blundell and MaCurdy 1999). Along the extensive margin, effects on labor force participation and employment are even more muted, with elasticities commonly estimated between 0.07 percent and 0.095 percent (Pissarides 1998). These findings suggest that formal employment in developed economies is relatively inelastic with respect to income tax changes.

Nevertheless, several studies document that increases in income taxation can contribute to higher unemployment or reduced participation among specific groups. For example, higher labor taxes are associated with increased unemployment in many European and Nordic countries, where labor taxes represent a large share of total tax revenue (Nickell and Bell 1997; Pissarides 1998). By contrast, evidence from Anglo-Saxon countries such as the United States and the United Kingdom suggests weaker labor market responses, reflecting greater flexibility and stronger adjustment mechanisms (Anderson and Meyer 2000).

Although informality is relatively limited in developed economies, income taxation can still affect labor market composition by influencing secondary employment, participation decisions of married women, and transitions into marginal or informal activities (Blundell and MaCurdy 1999; Saez et al. 2012). However, these effects are generally modest in magnitude and highly context dependent.

3.2 Evidence from Developing and Emerging Economies

In developing and emerging economies, the empirical relationship between income taxation and informality is substantially stronger. Studies focusing on Latin America, South Africa, and transition economies consistently find that increases in income taxation are associated with significant increases in informal employment, while reductions in income taxes or targeted subsidies can modestly reduce informality (Bosch and Maloney 2007; El Badaoui and Magnande 2017; Bosch et al. 2023).

Evidence from transition economies further suggests that informality often reflects voluntary choices rather than pure exclusion from formal employment. In Russia, for instance, informality is better explained by institutional and regulatory factors—such as dismissal costs, overtime rules, and union power—than by trade liberalization alone, with income taxation reinforcing incentives to remain informal. Similarly, in Latin America, negative income tax schemes and income-based transfers have been shown to reduce poverty and inequality while discouraging participation in formal employment, thereby increasing informality and affecting economic efficiency (Bosch and Maloney 2007; Perry et al. 2007). When considering income tax, Bosch et al. (2023) estimate informality elasticities of around 3.5% in Brazil. Taking into account payroll tax, the elasticity in Colombia ranges between 0.4% and 1.24% (Garlati, 2018; Haanwinckel and Soares, 2016; Mondragón-Vélez et al., 2010).

In these contexts, informality frequently serves as a buffer during periods of economic adjustment, allowing workers to maintain income when formal employment contracts. As a result, income taxation interacts closely with labor market segmentation, weak enforcement, and incomplete social protection systems, amplifying its impact on informality.

3.4 Heterogeneous Effects and Moderating Factors

A consistent finding across the empirical literature is that the impact of income taxation on informality is highly heterogeneous across workers, firms, and institutional environments. Workers with weaker bargaining power—such as women, youth, migrants, and individuals without formal education—are disproportionately affected by tax-induced shifts into informality (Bosch and Maloney 2007; Perry et al. 2007). These groups face greater constraints in accessing formal employment and are therefore more likely to respond to higher tax burdens by accepting informal arrangements.

Firm-level characteristics also play a crucial moderating role. Small firms, low-productivity enterprises, and firms with limited access to credit are significantly more likely to operate informally in response to higher income taxes, as they face tighter margins and higher relative compliance costs (Hsieh and Klenow 2014). Larger and more productive firms, by contrast, are better able to absorb tax increases or shift part of the burden through wage adjustments.

Institutional quality and enforcement capacity further condition empirical outcomes. Studies consistently find stronger informality responses to income taxation in contexts characterized by weak enforcement, high corruption, and bureaucratic complexity (Friedman et al. 2000; Gordon and Li 2009). Conversely, higher levels of tax compliance and stronger legal frameworks increase the expected cost of evasion, thereby dampening the relationship between taxation and informality. While these findings provide a coherent descriptive picture of the relationship between income taxation and informality, they also underscore the limitations of the existing evidence base.

4. A Critical Analysis

The empirical literature reviewed in the previous section provides substantial evidence that income taxation affects labor informality, particularly in developing and emerging economies. However, a closer examination reveals important methodological, contextual, and conceptual limitations that constrain the interpretability and policy relevance of these findings.

4.1 Methodological Strengths and Limitations

A major strength of the literature on income taxation and labor market outcomes lies in its methodological diversity. Many studies employ quasi-experimental designs—such as difference-in-differences, regression discontinuity designs, and instrumental variable approaches—that improve causal identification relative to simple cross-sectional correlations. These methods are particularly valuable in isolating the effects of discrete tax reforms and policy changes, especially in developed economies with detailed administrative data.

However, this methodological sophistication is unevenly distributed across contexts. In developing and emerging economies—where informality is most prevalent—empirical analyses frequently rely on reduced-form methods such as OLS regressions or panel fixed-effects models. While informative, these approaches often struggle to address key sources of endogeneity, including reverse causality between informality and tax policy, omitted institutional variables, and measurement error in informal employment. As a result, estimated elasticities may conflate the effects of income taxation with broader structural features of labor markets.

Another limitation concerns the temporal scope of empirical analyses. Many studies focus on short- to medium-term responses to tax changes, capturing immediate adjustments in employment or informality but failing to account for longer-term behavioral and structural dynamics. This is particularly problematic in the context of informality, which often reflects persistent institutional equilibria rather than transitory responses. Structural models—such as DSGE or CGE frameworks

calibrated to include informality—offer greater potential to explore long-run dynamics and counterfactual scenarios, but their use remains limited and geographically concentrated.

Finally, measurement issues pose a significant challenge. Informality is defined and measured inconsistently across studies, ranging from self-reported informal employment to proxies based on firm registration or social security coverage. These differences complicate cross-country comparisons and may partly explain the variation in estimated elasticities. Without harmonized definitions and measurement strategies, it is difficult to draw firm conclusions about the magnitude of income tax effects on informality.

4.2 Contextual and Regional Gaps

Perhaps the most salient limitation of the existing literature is its pronounced geographic imbalance. The majority of studies focus on high-income countries, particularly OECD and Western European economies, where informality is relatively low and institutional capacity is strong. In these contexts, income taxation operates within well-established compliance and enforcement frameworks, and labor markets exhibit greater formalization and social protection.

In contrast, evidence from low-income countries—where informality often exceeds half of total employment—is strikingly scarce. This gap is not merely descriptive but fundamentally limits the external validity of the literature. The mechanisms through which income taxes affect labor allocation in high-income settings may differ substantially from those in low-income or fragile institutional environments, where enforcement is weak and informality serves as a primary adjustment margin.

Even within the set of developing and emerging economies studied, coverage is uneven. Latin American countries such as Brazil, Colombia, and Mexico are relatively well represented, while Sub-Saharan Africa and low-income Asian economies receive far less attention. This imbalance matters because institutional quality, labor market regulation, and social norms vary widely across regions, shaping the relationship between taxation and informality in context-specific ways. As a result, policy conclusions derived from the existing literature may be ill-suited for countries with the highest levels of informality and the weakest administrative capacity. The dominance of high-income country evidence risks reinforcing a policy narrative that underestimates the challenges of formalization in developing contexts.

4.3 Theoretical and Empirical Inconsistencies

A further limitation of the literature lies in the mismatch between theoretical frameworks and empirical realities. Many empirical studies implicitly rely on standard labor supply theory, interpreting estimated effects through the lens of substitution and income effects. However, as discussed in Section 2, these models assume that workers adjust labor supply by changing hours worked or labor force participation, rather than by reallocating labor between formal and informal sectors.

Empirical evidence from developing and emerging economies suggests that informality constitutes a central margin of adjustment in response to income taxation. Estimated elasticities of informality with respect to income taxes—typically ranging between 3 and 5 percent—are substantially larger than corresponding elasticities for formal employment. Yet, theoretical models often treat informality as a residual outcome or an exogenous sector, failing to integrate it fully into labor supply decisions.

This disconnect is particularly evident in studies that find small or insignificant effects of income taxation on employment but large effects on informality. Without a theoretical framework that explicitly models informality as an endogenous choice, such findings are difficult to interpret. Are workers responding to taxes by reducing labor supply, or by shifting into informal arrangements? Reduced-form estimates alone cannot answer this question.

Moreover, the literature often reports similar ranges of elasticities across diverse contexts, despite substantial differences in institutions and enforcement. This apparent consistency may mask underlying heterogeneity that is obscured by methodological constraints or aggregation. Without models that allow for context-specific behavioral responses, the empirical literature risks overstating the generality of its findings.

4.4 Policy-Relevant Critiques

The limitations identified above have important implications for policy interpretation. A central concern is that many studies implicitly rely on static frameworks when assessing the fiscal and distributional effects of income tax reforms. By ignoring behavioral responses—particularly shifts into informality—such analyses are likely to overestimate revenue gains and underestimate adverse effects on equity and labor market quality.

For example, income tax increases may raise statutory revenue in the short run, but if they induce workers to move into informal employment, the effective tax base may shrink over time. Similarly, tax reductions intended to stimulate formal employment may have limited effects if informality is driven by structural constraints rather than tax burdens alone. Evidence from negative income tax schemes illustrates this tension: while such policies can reduce inequality and poverty, they may also discourage participation in formal employment, with implications for economic efficiency and fiscal sustainability.

The literature also tends to understate the distributional consequences of informality responses. Since informal employment disproportionately affects women, youth, migrants, and low-skilled workers, tax-induced shifts into informality may exacerbate existing inequalities and undermine social protection coverage. Policies designed without accounting for these heterogeneous effects risk producing regressive outcomes, even when motivated by equity considerations.

Finally, the limited integration of enforcement capacity and institutional quality into empirical models constrains their policy relevance. Tax reforms implemented in environments with weak enforcement may yield very different outcomes than those predicted by models calibrated to high-

compliance settings. Without explicitly modeling these institutional dimensions, the literature provides an incomplete guide for policymakers in developing countries.

These shortcomings point to the need for a paradigm shift in the analysis of income taxation and informality. Future research should move beyond narrow labor supply models and static evaluations, adopting integrated frameworks that explicitly model informality decisions, enforcement capacity, and institutional constraints. Only by aligning theory, empirics, and context can the literature provide reliable guidance for tax policy in high-informality settings.

5. Policy Implications and Future Research Directions

The empirical and conceptual limitations identified in the preceding sections have direct implications for the design, evaluation, and interpretation of income tax policies in economies characterized by high levels of informality.

A central implication of the reviewed literature is that income tax policy cannot be evaluated independently of labor market structure, enforcement capacity, and behavioral responses. While income taxes are often justified on redistributive and revenue grounds, the evidence indicates that in developing and emerging economies they may also induce sizable shifts into informal employment. Estimated elasticities of informality with respect to income taxation—typically ranging between 3 and 5 percent—suggest that informality constitutes a primary margin of adjustment rather than a secondary outcome.

From a policy perspective, this implies that static revenue projections based on statutory tax changes are likely to be misleading. Income tax increases may generate short-term revenue gains, but these gains can be eroded over time if workers respond by reallocating labor toward informal activities. Conversely, tax reductions intended to stimulate formal employment may have limited effects if informality is driven by structural constraints such as low productivity, limited access to credit, or rigid labor regulations rather than tax burdens alone.

The literature also highlights the importance of policy targeting. Evidence from negative income tax schemes and earned income-type transfers suggests that income-based support can reduce poverty and inequality while simultaneously discouraging participation in formal employment. This trade-off underscores the need for careful policy design that balances redistribution with incentives for formalization. Targeted tax credits or subsidies linked explicitly to formal employment—particularly for low-income workers—may mitigate these adverse incentives, but their effectiveness depends on enforcement capacity and administrative simplicity.

Another key implication concerns the interaction between income taxation and labor regulation. Studies from emerging economies indicate that informality responses are amplified in contexts with flexible labor legislation and weak controls, while stricter enforcement and simpler regulatory frameworks reduce incentives for evasion (Gordon and Li 2009; Friedman et al. 2000). This suggests that income tax reforms should be coordinated with broader institutional reforms,

including improvements in tax administration, reductions in bureaucratic complexity, and investments in enforcement capacity.

Finally, the heterogeneous effects of income taxation across demographic groups call for distributionally sensitive policy design. Women, youth, migrants, and low-skilled workers are disproportionately affected by tax-induced shifts into informality (Bosch and Maloney 2007; Perry et al. 2007). Policies that fail to account for these differences risk exacerbating labor market segmentation and inequality, even when motivated by equity objectives.

5.1 Addressing Data and Methodological Gaps

The effectiveness of income tax policy in high-informality settings is constrained not only by institutional factors but also by significant data and methodological limitations. A recurring theme in the literature is the scarcity of reliable and comparable data on informal employment, particularly in low-income countries. Informality is often measured using self-reported employment status, firm registration, or social security coverage, each of which captures different dimensions of informal activity. Improving the consistency and granularity of informality measures is therefore a prerequisite for more accurate policy evaluation.

In addition, most existing studies rely on reduced-form empirical methods that capture short-term correlations or localized policy effects but provide limited insight into long-term dynamics. Structural models—such as DSGE or CGE frameworks that explicitly incorporate informality, labor market segmentation, and enforcement constraints—offer a promising avenue for addressing this gap. While such models are more demanding in terms of data and assumptions, they allow for counterfactual analysis and the exploration of dynamic feedback loops between taxation, informality, productivity, and fiscal capacity.

A further methodological priority is the integration of behavioral responses into policy evaluation. As highlighted in the literature, ignoring adjustments in labor supply, formality decisions, and self-employment choices can lead to biased estimates of both distributional and fiscal effects. Hybrid approaches that combine quasi-experimental empirical evidence with structural modeling may provide a more realistic assessment of policy impacts, particularly in developing contexts where informality is pervasive.

Finally, there is a need for greater transparency and comparability across studies. Standardized reporting of elasticities, definitions, and institutional context would facilitate cross-country comparisons and meta-analytic efforts, helping to clarify whether observed differences reflect genuine behavioral heterogeneity or methodological artifacts.

5.2 Agenda for Future Research

The critical review conducted in this paper points to several priorities for future research. First, there is an urgent need for more evidence from low-income countries and fragile institutional environments, where informality is most prevalent and policy stakes are highest. Expanding

empirical coverage beyond the relatively well-studied middle-income and OECD contexts is essential for improving the external validity of existing findings. Second, future research should place greater emphasis on longitudinal analysis and dynamic responses. Informality often reflects persistent equilibria shaped by historical, institutional, and behavioral factors. Short-term evaluations of tax reforms may therefore underestimate long-term effects on labor market structure, productivity, and state capacity. Third, greater attention should be paid to heterogeneous effects across workers and firms. Disaggregated analysis by gender, age, skill level, and firm characteristics would improve understanding of who bears the costs of tax-induced informality and how policy design can mitigate adverse distributional consequences. Finally, future work should seek to bridge the gap between theory and empirics by developing analytical frameworks that treat informality as an endogenous and central feature of labor markets. Such frameworks should explicitly incorporate enforcement, institutional quality, and behavioral responses, moving beyond the narrow labor supply models that dominate much of the existing literature.

6. Conclusion

This paper has provided a critical review of the theoretical and empirical literature examining the relationship between income taxation and informal economic activity. Drawing on evidence from peer-reviewed studies spanning developed, emerging, and developing economies, the review has shown that while income taxes generally have limited effects on formal employment levels, they exert a substantial and systematic influence on labor informality—particularly in contexts characterized by weak enforcement, segmented labor markets, and high economic vulnerability.

Across the reviewed studies, the elasticity of informality with respect to income taxation consistently falls within the range of 3 to 5 percent, with average effects close to 3.5 percent in several developing and emerging economies. These magnitudes are economically meaningful and stand in sharp contrast to the relatively small elasticities observed for formal employment. Taken together, the evidence suggests that informality constitutes a primary margin of labor market adjustment in response to income taxation in high-informality settings, rather than a residual or secondary outcome.

However, the paper has also demonstrated that the existing literature is marked by important limitations that constrain the interpretation and policy relevance of these findings. Methodologically, the dominance of reduced-form empirical approaches—often applied to short time horizons and limited institutional variation—restricts the ability to capture long-term dynamics and behavioral responses. Contextually, the literature is heavily skewed toward high-income countries, despite the fact that informality is most pervasive and consequential in low- and middle-income economies. Conceptually, many studies rely implicitly on standard labor supply frameworks that do not adequately account for informality as an endogenous and strategic choice shaped by enforcement capacity, institutional quality, and labor market segmentation.

By bringing these limitations to the forefront, this review contributes to the literature in three main ways. First, it clarifies that the key labor market response to income taxation in developing and

emerging economies operates through informality rather than employment levels. Second, it highlights the risks of extrapolating policy conclusions from high-income contexts to settings with fundamentally different institutional and labor market structures. Third, it underscores the importance of integrating behavioral responses—such as shifts between formal employment, informal work, and self-employment—into both empirical analysis and policy evaluation.

The implications for policy design are substantial. Income tax reforms that ignore informality responses are likely to overestimate revenue gains, underestimate distributional consequences, and misjudge their effects on labor market quality. In high-informality contexts, income taxation cannot be treated as a neutral or purely redistributive instrument; instead, it interacts closely with enforcement capacity, labor regulation, and workers' outside options. Policies aimed at reducing inequality or expanding fiscal space must therefore be designed in conjunction with measures that strengthen institutions, simplify compliance, and create credible incentives for formalization—particularly for vulnerable workers and small firms.

Looking ahead, the findings of this review point to a clear agenda for future research. Greater empirical attention must be devoted to low-income and fragile institutional settings, where evidence remains scarce despite the scale of informality. Longitudinal and dynamic analyses are needed to understand how income taxation shapes labor market equilibria over time, rather than only short-run adjustments. Finally, closer integration between theory and empirics is essential, with analytical frameworks that treat informality as a central feature of labor markets rather than an anomaly.

In an era of heightened fiscal pressure, rising inequality, and persistent informality, understanding how income taxation shapes labor market behavior is more important than ever. This paper argues that progress in this area requires moving beyond narrow labor supply models and static policy evaluations toward a more comprehensive and context-sensitive approach. Only by doing so can income tax policy contribute effectively to inclusive growth, fiscal sustainability, and improved labor market outcomes in economies where informality remains a defining challenge.

References

- Anderson, P. M., & Meyer, B. D. (2000). The effects of the unemployment insurance payroll tax on wages, employment, claims and denials. *Journal of Public Economics*, 78(1–2), 81–106. [https://doi.org/10.1016/S0047-2727\(99\)00062-9](https://doi.org/10.1016/S0047-2727(99)00062-9)
- Blundell, R., & MaCurdy, T. (1999). Labor supply: A review of alternative approaches. In O. Ashenfelter & D. Card (Eds.), *Handbook of labor economics* (Vol. 3A, pp. 1559–1695). Elsevier. [https://doi.org/10.1016/S1573-4463\(99\)03031-5](https://doi.org/10.1016/S1573-4463(99)03031-5)
- Bosch, M., & Maloney, W. F. (2007). Comparative analysis of labor market dynamics using Markov processes: An application to informality. *Labour Economics*, 17(4), 621–653. <https://doi.org/10.1016/j.labeco.2009.03.005>
- Bosch, M., Esteban-Pretel, J., & Rodríguez-Castelán, C. (2023). Payroll and income taxes, informality, and employment: Evidence from Brazil. *World Bank Economic Review*, 37(1), 1–29. <https://doi.org/10.1093/wber/lhac020>
- Chamley, C. (1976). Optimal taxation of capital income in general equilibrium with infinite lives. *Econometrica*, 54(3), 607–622. <https://doi.org/10.2307/1911310>
- El Badaoui, E., & Magnande, A. (2017). Informality, taxes, and employment: Evidence from South Africa. *World Development*, 96, 392–406. <https://doi.org/10.1016/j.worlddev.2017.03.015>
- Friedman, E., Johnson, S., Kaufmann, D., & Zoido-Lobaton, P. (2000). Dodging the grabbing hand: The determinants of unofficial activity in 69 countries. *Journal of Public Economics*, 76(3), 459–493. [https://doi.org/10.1016/S0047-2727\(99\)00093-9](https://doi.org/10.1016/S0047-2727(99)00093-9)
- Garlati, P. (2018). Payroll Taxes, Social Security and Informality. The 2012 Tax Reform in Colombia, *Vniversitas Económica*, Universidad Javeriana - Bogotá, vol. 0(0), pages 1-33, September.
- Gordon, R. H., & Li, W. (2009). Tax structures in developing countries: Many puzzles and a possible explanation. *Journal of Public Economics*, 93(7–8), 855–866. <https://doi.org/10.1016/j.jpubeco.2009.04.001>
- Haanwinckel, D., & Soares, R. R. (2016). Workforce composition, productivity, and labor regulations in a compensating differentials theory of informality (IZA DP No. 9951). Institute of Labor Economics (IZA). <https://www.iza.org/en/publications/dp/9951>
- Hsieh, C.-T., & Klenow, P. J. (2014). The life cycle of plants in India and Mexico. *Quarterly Journal of Economics*, 129(3), 1035–1084. <https://doi.org/10.1093/qje/qju014>

- Kleven, H. J., Kreiner, C. T., & Saez, E. (2009). The optimal income taxation of couples. *Econometrica*, 77(2), 537–560. <https://doi.org/10.3982/ECTA6979>
- Kugler, A., & Kugler, M. (2002). Labor market effects of payroll taxes in a middle-income country: Evidence from Colombia. *Economic Development and Cultural Change*, 50(2), 343–368. <https://doi.org/10.1086/324154>
- Kugler, A., Kugler, M., & Herrera, H. (2017). Do payroll tax cuts increase formal employment? Evidence from Colombia. *Journal of Labor Economics*, 35(4), 813–860. <https://doi.org/10.1086/692010>
- Leamer, E. E. (1974). The commodity composition of trade in manufactures: An empirical analysis. *Oxford Economic Papers*, 26(3), 350–374.
- Levy, S. (2008). *Good intentions, bad outcomes: Social policy, informality, and economic growth in Mexico*. Brookings Institution Press.
- Mondragón-Vélez, C., X. Peña, and D. Wills (2010). Labor market rigidities and informality in Colombia. *Economía* 11 (1), 65101.
- Nickell, S., & Bell, B. (1997). Would cutting payroll taxes on the unskilled have a significant impact on unemployment? *Oxford Economic Papers*, 49(4), 563–588. <https://doi.org/10.1093/oxfordjournals.oep.a028622>
- Perry, G. E., Maloney, W. F., Arias, O., Fajnzylber, P., Mason, A., & Saavedra-Chanduvi, J. (2007). *Informality: Exit and exclusion*. World Bank. <https://doi.org/10.1596/978-0-8213-7092-6>
- Pissarides, C. A. (1998). The impact of employment tax cuts on unemployment and wages. *European Economic Review*, 42(1), 155–183. [https://doi.org/10.1016/S0014-2921\(97\)00099-0](https://doi.org/10.1016/S0014-2921(97)00099-0)
- Portes, A., & Haller, W. (2004). The informal economy. In N. J. Smelser & R. Swedberg (Eds.), *The handbook of economic sociology* (2nd ed., pp. 403–425). Princeton University Press.
- Saez, E., Matsaganis, M., & Tsakloglou, P. (2012). Earnings determination and taxes: Evidence from Europe. *Quarterly Journal of Economics*, 127(3), 1433–1476. <https://doi.org/10.1093/qje/qjs020>
- Saez, E., Schoefer, B., & Seim, D. (2019). Payroll taxes, firm behavior, and rent sharing: Evidence from a young workers' tax cut in Sweden. *American Economic Review*, 109(5), 1717–1763. <https://doi.org/10.1257/aer.20171937>
- Schneider, F., & Enste, D. H. (2002). *The shadow economy: An international survey*. Cambridge University Press.

Ulyssea, G. (2018). Firms, informality, and development: Theory and evidence from Brazil. *American Economic Review*, 108(8), 2015–2047. <https://doi.org/10.1257/aer.20141745>