Macroeconomic Policy and
Financing for Development Division

POLICY BRIEF

Tax Compliance

Rationale and Behavioral Aspects of Taxpayer Motives

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Summary

The objective of this policy brief is to provide an easy-to-digest overview of the factors affecting tax compliance in developing countries, including taxpayer motives at the micro level (section II) and determinants of national tax capacities at the macro level (section III), as well as a summary of policy options based on the discussion (section IV). Section V describes the tax situation in Pakistan and discusses the main messages and insights of the policy brief for Pakistan.

I. INTRODUCTION

A typical tax system comprises two important parts. One, the definition of tax base, rates and remittance rules.[1] Two, the procedures for ensuring tax compliance, such as tax reporting requirements, monitoring mechanisms and penalties on tax evaders, which are also known as enforcement measures. In a healthy and effective tax system, these two parts support each other in addition to serving their own functions.

For developing countries, tax enforcement is arguably a much greater challenge. On the one hand, information sparsity, partly due to a larger informal economy, and a lack of economic and financial documentation severely constrains and complicates tax enforcement effort. On the other hand, tax authorities in developing countries are often constrained by capacity or resources to undertake necessary but technically demanding and administratively costly tax inspections and audits to ensure that tax potentials on paper are actually paid in full. As a result, weak tax compliance becomes a primary cause of unsatisfactory tax collection in developing countries. It also becomes a serious constraint on tax policy design as countries are cornered into a narrower tax base, such as formal sectors or salaried employment, where tax enforcement is more manageable.

[1] i.e. how legal tax liabilities are paid.

II. TAX COMPLIANCE MOTIVES: WHAT DO WE KNOW TO-DATE?

The traditional economic theory on tax compliance, as reasoned in Becker (1968) and Allingham and Sandmo (1972), views taxpayers as rational and risk-averse agents who act on the trade-off between potential benefits and risks of evading taxes, informed by a subjective belief on tax enforcement intensity, i.e., the probability of being caught. In addition, the time and resources committed to pay taxes should be taken into the equation as well, as they also affect the expected value of paying or evading taxes.

A. Taxpayer services, audits, and penalties to change taxpayers' pecuniary calculations

In the standard setting, the sole motive of taxpayers is utility maximization and the primary objective of tax enforcement is to tilt taxpayers' pecuniary calculations in favor of compliance. This can be achieved through two main channels. The direct channel is to change the actual utility payoffs on tax compliance and evasion, such as through better tax services to reduce compliance costs, or strengthened information collection and tax audits to increase the chance of catching tax evaders, or through higher penalties on tax evasion.

There is broad consensus that audits and penalties are highly effective for improving tax compliance[2] and should be the primary policy tools at the disposal of tax authorities. Empirical studies also find that increasing audit probability has much greater deterrence effect on tax evasion than increasing penalties, and to some extent effective detection of tax evasion is a precondition for the penalties to work (Alm and Malézieux, 2021). In other words, the assurance that all tax evasion will be caught and published is much more effective in deterring noncompliance than penalties themselves. Audits may bring spillover benefits on tax compliance as well. For example, in value added tax (VAT) systems, audits or threats of audit are found to improve tax reporting of both the audit targets and companies that trade with them (Pomeranz, 2015). While visits of tax inspectors or deterrence letters may positively affect compliance of neighbours of the targeted households (Drago, Mengel and Traxler, 2020) or those hiring the same tax advisors (Boning and others,2020).

[2] But research on the long-term effect of tax audits and penalties remain limited. Some studies in developed countries, for example DeBacker and others (2015), report that taxpayers may increase evasion immediately after an actual audit on the opportunistic belief that they won't be audited again very soon.

However, tax inspections and audits, especially in-person visits, can be costly to conduct and thus developing country tax authorities are often forced to weigh the expected benefits of additional effort against their capacity and resources. Therefore, increasing the cost-efficiency of tax audits is very important. Several measures have been found effective for this purpose, yet often with negative side effects. For example, a dedicated large taxpayer office can help concentrate the limited tax inspection and audit capacity on potentially the most productive tax targets, although it is not necessarily conducive for broadening the tax base. Selective targeting[3] in tax audits based on evasion risk analysis is another approach for improving efficiency. But such selection mechanisms can be adversely affected by endogeneity issues that lead to repeated and self-fulfilling audits on the same groups of tax evaders while evaders not covered in the initial rounds of selection may be left outside the radar.

Third-party information and digital invoicing and tax administration can significantly reduce the necessity and costs of tax audits as well. For example, various withholding tax regimes that directly act upon third-party information for tax collection can substantially enhance tax receipts (Brockmeyer and Hernandez, 2018), while verifiable paper trails generated through the self-enforcing mechanism of VAT can achieve similar effects (Pomeranz and Vila-Belda, 2019). Meanwhile, pecuniary incentives, such as those for consumers to request registered receipts from sellers (Kumler, Verhoogen, and Frías, 2020) or for pensioners to request honest reporting on salaries by their employers (Naritomi, 2019) can be leveraged to encourage third-party information.

Digital invoicing and tax administration bring cross-cutting benefits for tax compliance through several channels. For instance, digital invoicing, together with automatic information sharing with the government, can significantly increase transaction and financial transparency and the availability of data for tax enforcement. Digitized tax filing and payment can significantly reduce compliance costs for taxpayers. And through digitalization, rather than traditional paperwork, tax authorities can also collect, store and analyze tax-related data much more cost-efficiently and reduce corruption in the process.

B. Proactive signaling on enforcement intensity and effectiveness for greater deterrence effect

The second and more implicit channel for tilting taxpayers' pecuniary calculations in favor of compliance is through taxpayer's subjective belief on the intensity and effectiveness of tax enforcement. For example, tax reminder letters, or even simple contact by the tax authority with no particular message, have long been found to be helpful in promoting compliance. This effect is usually attributed to the signaling effect – a reminder that they are under the radar of the tax

[3] Instead of random targeting.

authority. Since the probability and effectiveness of tax audits are usually not observable to the public, such deliberate signaling is critical for correcting taxpayers' tendency of underestimating the intensity and effectiveness of tax audits (Del Carpio, 2014; Hallsworth and others, 2017). Tax authorities can also leverage this behavioral effect to proactively shape taxpayers' subjective belief for greater deterrence effect on tax evasion without actually committing to additional high-cost enforcement measures. It is worth noting that some studies warn that empty threats may backfire on tax authority's long-term credibility and that truthful communication is usually more advisable (Carrillo, Pomeranz, and Singhal, 2017).

Regarding the different format of signaling, more direct wording with concrete evidence of the tax authority's awareness of evasion tends to carry more persuasion (Slemrod, 2019; Alm and Malézieux, 2021). While more personalized reminder messages, as opposed to standard group messages, and messages delivered in person may also be more powerful (Ortega and Scartascini, 2015; Dörrenberg and Schmitz, 2017). However, the cost advantage of personalized and person-delivered messages compared to actual enforcement measures can be small.

C. Tax morale and non-pecuniary motives for tax compliance

As a challenge to the traditional tax compliance theory, a growing body of literature suggests that pecuniary calculations and the fear of penalties are not the only motives for taxpayers to pay their taxes. For example, more than 60 per cent of respondents to the World Values Surveys believed that cheating on payment of tax is never acceptable and more than 80 per cent of respondents to the 2004 European Social Survey agreed with the statement that "citizens should not cheat on their taxes" (Luttmer and Singhal, 2014). Empirical studies also found high levels of compliance in self-reporting of income that could not be sufficiently explained by detection and penalty pressures, indicating the existence of voluntary tax compliance (Slemrod, 2007; Kleven and others, 2011). Moreover, the age, education, gender and religious backgrounds of taxpayers also have an influence on their tax compliance (OECD, 2019).

Tax morale is the umbrella term used to describe such non-pecuniary motives for tax compliance, and it can influence taxpayers' behaviour through four main channels (Luttmer and Singhal, 2014).

- First, intrinsic motives induce voluntary tax compliance, when such psychological factors as pride or self-image contribute to honesty and fulfilment of social duties.
- Second, reciprocal use of tax revenues for high-quality public services leads to a stronger perception of fairness of the tax system and taxpayer cooperation.
- Third, peer and social pressure reduces non-compliance by obliging potential tax evaders to change their behaviour.
- Fourth, cultural factors, such as established norms and consensus, also affect willingness to pay taxes.

However, in contrast to deterrence signaling and effectiveness of letters or messages to taxpayers, evidence related to appealing to tax morale is more mixed (Antinyan and Asatryan, 2019; Pomeranz and Vila-Belda, 2019). Evidence of the effectiveness of tax-morale related policy instruments, such as taxpayer education, moral suasion messages to taxpayers, or nudges through disclosure of tax compliance behavior and positive inducement, remain anecdotal rather than universal, implying that successful application of such instruments will need to be tailored to the local context. In Pakistan, evaluations of the Federal Board of Revenue's (FBR) mass media campaigns suggest that informative advertisements significantly increased tax filing rates, while moral suasion through television ads showed less pronounced effects, emphasizing the importance of clear and neutral messaging (Koumpias and Martinez-Vazquez, 2019). One successful example is the experiment on moral suasion messages appealing to national pride in Indonesia, which generated positive tax results (BIT and DJP, 2019).

While the effectiveness of tax morale applications at the micro policy level is not universal, the importance of tax morale in taxation at the macro level is rarely disputed. Alm and Malézieux (2021), through a meta-analysis on 70 papers examining individual tax evasion behavior, find that perception of fairness and progressiveness in the tax system seems a pre-condition for effective enhancement of tax compliance. They also find that the redistribution of taxes to participants and the investment of taxes in a real life public good, such as essential public services such as utilities, education and healthcare, have a positive and significant impact on tax compliance, indicating the importance of perceived reciprocity at the macro level as described in tax morale narratives.

D. Incentives for tax officials

Another important but often overlooked factor in determining tax compliance is the motives of tax officials, whose performance at job is critical for any tax enforcement strategy. The limited research on this subject suggests that performance pay and nonfinancial incentives for tax collectors, such as through performance-based posting, can both increase tax revenue substantially (over 30 per cent in the case of Pakistan) with similar scales of effectiveness (Khan, Khwaja and Olken, 2016; 2019). But performance pay may also increase tax related bribes as it increases the bargaining power of tax collectors vis-à-vis taxpayers (Khan, Khwaja and Olken, 2016). The digitalization of tax administration may partly resolve this problem and change the interactions of tax officials with taxpayers, as it can reduce the scope of the formers' discretion in determining tax liabilities (Okunogbe and Pouliquen, 2018).

III. DETERMINANTS OF MAXIMUM SUSTAINABLE TAX LEVELS OF COUNTRIES

A desirable and sustainable tax level in a country is essentially determined by an "equilibrium" between developmental payoffs of additional tax-funded public expenditure and opportunity costs of household consumption and private investment that are crowded out. Deliberate tax effort can push up the tax level above this equilibrium, yet significant deviations from it are unlikely to be sustained in the long run.

For instance, for a government beset with corruption, inefficiencies or weak accountability, excessive tax revenue mobilization that channels resources from the private sector and households into its hand most likely results in lost economic efficiency and deceleration in economic development. This in turn aggravates or protracts livelihood pressures on the people, generates public resentment and erodes tax morale. The accumulated effect over time is growing erosion in the tax base and political pressure on the ruling government, eventually leading to a change in either the de facto tax policy or the political status quo. In addition, artificially inflated tax revenues inevitably cause additional socioeconomic distortions, such as excessive concentration of tax burdens on specific sectors or groups or over-taxing the poor, and accelerates the erosion of tax morale and public consent, resulting in an even quicker change.

Therefore, tax revenue mobilization has its natural boundaries, which are shaped by a country's development status and traits. Knowing these boundaries is important for fiscal and tax strategies, while understanding the determining factors of these boundaries sheds light on potential directions for tax revenue enhancement efforts. Existing literature reveals a broad groups of candidate factors that may affect a country's maximum sustainable level of tax. These include:

- a country's income level and economic structure, where richer, formal and diversified economies are associated with broader tax base;
- social development indicators, such as education and income inequality, which boost tax morale and are positively linked to tax compliance;
- public governance quality, as reflected in sound economic and fiscal management and efficient and accountable public expenditure, which affect both the future economic and tax base and perceived reciprocity; and
- fiscal windfalls, such as natural resource rent or foreign aid, which correlate negatively with tax levels across countries.

Based on these general observations, ESCAP (2024)[4] conducted a stochastic frontier analysis (SFA) on maximum tax capacity and current tax effort[5] of Asia-Pacific countries. In addition to economic indicators public spending on education and income Gini coefficient were also used as proxies for social development, while the *Corruption Perceptions Index* of Transparency International was used as a proxy for public governance quality in the analysis. It finds significant variations in tax effort across Asia-Pacific countries. During the period 2017-2019, actual tax collection as a share of maximum tax capacity, i.e. the tax effort, ranges between 56 per cent and 94 per cent. The estimated space for further tax revenue enhancement, i.e. the gap between actual tax collection and estimated maximum tax capacity, ranges between 1.1 per cent and 6.1 per cent of GDP, with an average of 2.6 per cent (figure 1).[6]

It is worth highlighting that a low tax-to-GDP ratio doesn't automatically imply high tax potentials. For instance, estimated tax gaps in in Bangladesh, Pakistan and Sri Lanka are capped at modest levels due to their socioeconomic and governance constraints despite low revenue collection. This is a clear reminder that a narrow focus on strengthening tax collection may not go far without broader improvements in socioeconomic conditions and public governance. Indeed, take Pakistan as an example. It ranked only 133 among 180 countries in the global Corruption Perceptions Index, as a proxy to governance quality, in 2023. If it were to reduce its corruption to the global median, a level same as India, its additional tax potential (i.e. its tax gap) would more than quadruple from 1.4 per cent of GDP to 5.9 per cent of GDP (figure 1).

Similarly, if Pakistan could double its government expenditure on education, which affects taxpayers' ability and willingness to pay taxes, from 1.7 per cent of GDP to middle-income country average of 3.5 per cent, an additional 6.1 per cent of GDP in tax revenue potential could eventually be generated.[7]

Thus, we need to remember that tax revenue enhancement effort needs to be supported with broader socioeconomic progresses and improvements in public governance to bear long-term fruits.

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[4] Existing methodologies to estimate the overall effort and efficiency of tax collection inevitably have to rely on simplified assumptions and work with limited data. The inference provided by the models is dependent on the model structure and data sets used. Thus, while the numerical analysis on tax capacity and potential can provide useful insights, its verdict on individual countries should be interpreted with caution rather than viewed as a deterministic conclusion.

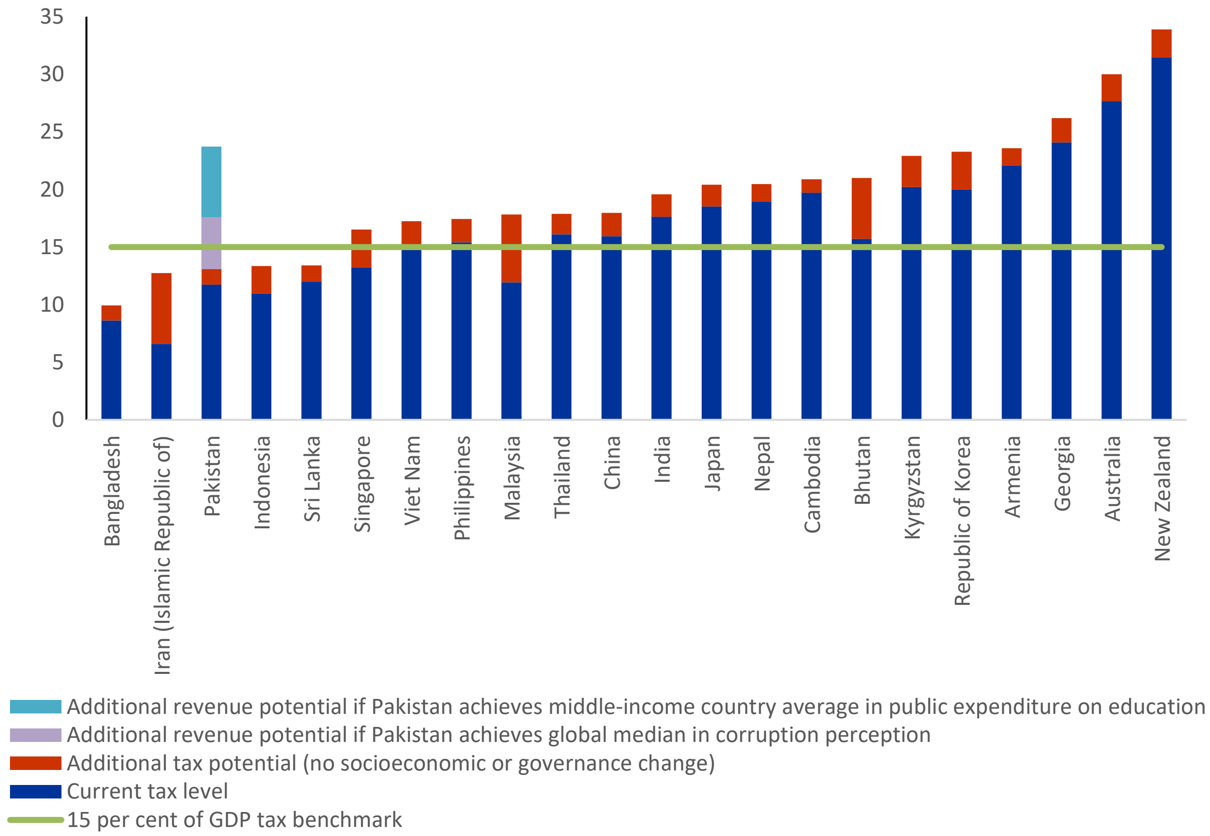
[5] Defined as the ratio of a country's current tax revenue over its estimated maximum tax capacity.

[6] As shown in figure 1, tax effort is only exceptionally low in countries with significant non-tax revenues, such as Iran, Malaysia or Bhutan and to a less extent in Indonesia and Singapore. For most other countries, the margin for revenue enhancement, without broad-based socioeconomic and governance improvements, is quite modest (around or below 15 per cent of their current revenue). It is worth highlighting that this revenue growth margin is theoretical and assumes a 100 per cent tax effort, which no country actually attains. Average tax effort of OECD countries is 88 per cent, implying a theoretical margin for revenue increase of 13.6 per cent of their current tax revenue. But few are calling for sweeping tax hikes in OECD countries. In other words, if the socioeconomic and governance constraints are considered, tax revenue levels in most countries are likely to be already at an equilibrium level. There is neither a silver bullet nor compelling economic justification for countries to significantly increase their tax revenue unless there are fundamental changes in their socioeconomic competitiveness or governance quality. This is probably why there are so many failed attempts to increase tax revenues on sustained basis, while cases of fast revenue enhancement remain the outliers.

[7] However, it should be note that these inferences are based on ESCAP's empirical modeling and the conclusions may change in different model settings or when different country samples or time periods covered in the analysis are used. To sum it up, the findings are informative, rather than conclusive.

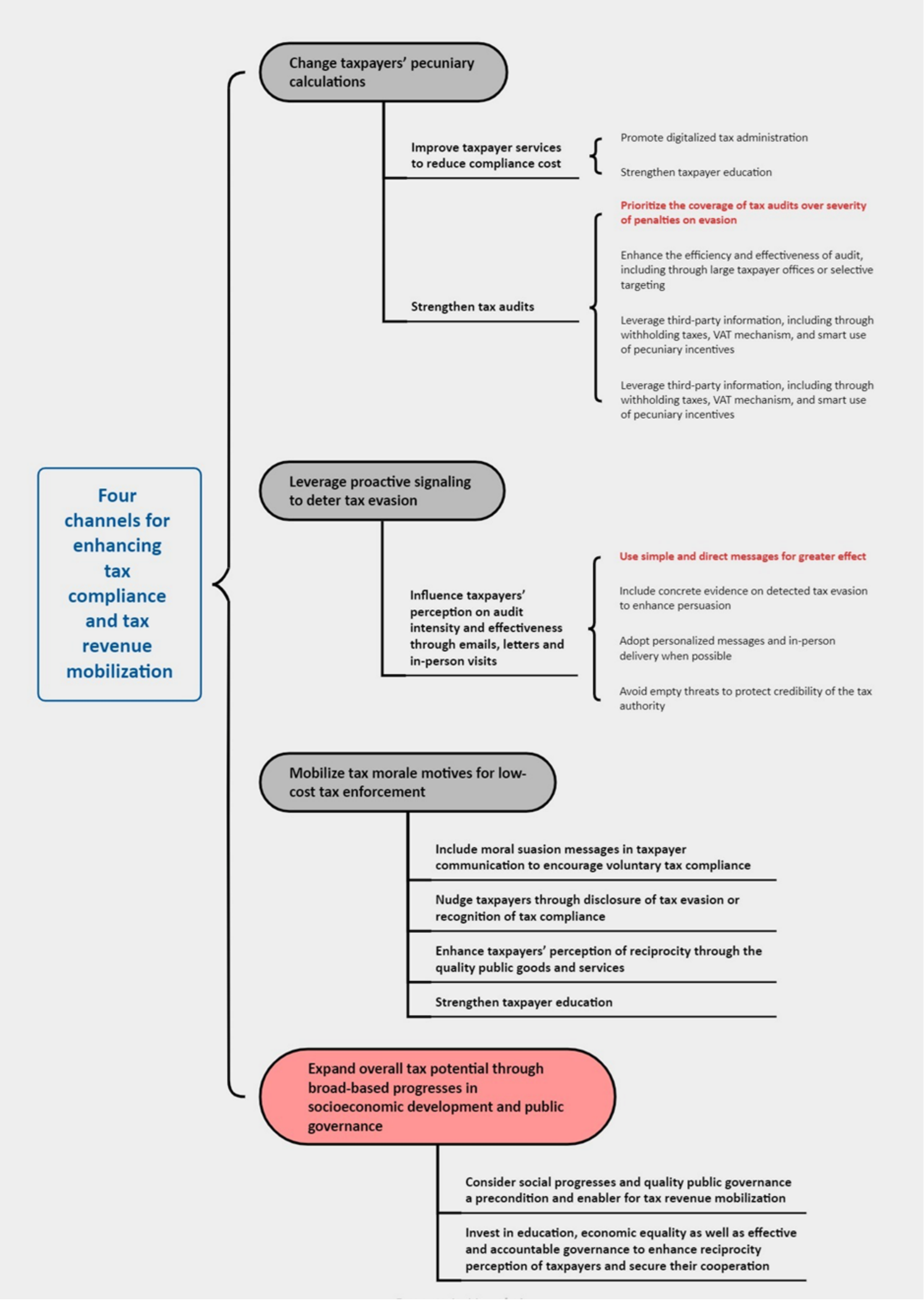
Figure 1 Estimated tax gaps/potentials in Asia-Pacific countries, 2017-2019 average

(Percentage of GDP)



Source: ESCAP analysis based on the IMF World Revenue Longitudinal Data set (accessed on 6 November 2023).

IV. SUMMARY OF POLICIES FOR IMPROVING TAX COMPLIANCE



V. TAX SITUATION IN PAKISTAN AND THE ISSUE OF TAX COMPLIANCE

Tax compliance in Pakistan presents a complex array of challenges, driven by both structural and behavioral factors. Despite numerous tax reform efforts over the decades, Pakistan's tax-to-GDP ratio remains persistently low, hovering around 8.5 per cent to 9 per cent, which is significantly below the average for countries with comparable income levels. This low ratio stems from a narrow tax base, significant tax evasion, and an overreliance on regressive indirect taxes that exacerbate socioeconomic inequality (Alm and Malézieux, 2021; Cyan, Koumpias and Martinez-Vazquez, 2016). For example, the State Bank of Pakistan (SBP) Report 2023-2024 notes that while non-tax revenues (like petroleum levies) increased, Federal Board of Revenue (FBR) tax collection showed only marginal growth, underscoring the urgent need for reforms in direct tax collection (SBP, 2024).

Efforts to broaden the tax base face significant hurdles, particularly in sectors like agriculture, retail, and property, which have historically evaded formalization. According to the Pakistan Development Update of the World Bank (2023), total revenue declined to 11.6 per cent of GDP in fiscal year 2023, driven by lower indirect tax revenue and a decline in non-tax revenues. This highlights the ongoing difficulties in expanding the tax base, especially in high-potential sectors like agriculture and real estate (World Bank, 2023).

The barriers to formalization in these sectors are both structural and behavioral. For instance, large agricultural landowners resist taxation due to their political influence, while small farmers face the burden of compliance costs and income volatility (Shakoor and others, 2018). In the retail sector, where 85 per cent of businesses operate informally, complicated regulatory requirements and a lack of trust in the government's ability to provide services in return for taxes disincentivize compliance (Shahid and Williams, 2020). Similarly, outdated land records and limited digitization in the property sector complicate efforts to formalize transactions (Kemal, 2007). Thus, both administrative costs and distrust in government undermine efforts to bring these sectors under the tax net.

To address these issues, policymakers have introduced initiatives like the Presumptive Tax Regime (PTR) for SMEs, aimed at reducing compliance burdens. However, weak enforcement and low awareness have limited its impact (Akhtar and others, 2019). Additional efforts to digitize land records and improve taxpayer education are critical to encourage voluntary compliance. The potential benefits of formalization extend beyond increasing the tax base, as it would also lead to positive spillovers, such as better access to credit for businesses and improved economic data for policymakers (Beg, 2019).

A. Complexity and costs of compliance

The administrative complexity and costs of compliance are also major deterrents in Pakistan, particularly for SMEs. Research shows that many businesses face complex filing procedures, ambiguous tax laws, and fear harassment by tax authorities (DeBacker and others, 2015). While digital tax filing systems have been introduced, they are underutilized in rural areas due to limited internet access and a dominant informal economy (Pomeranz, 2015). These factors underscore the need for broader infrastructure investments to support the transition to formalization, particularly in underserved regions (Cyan, Koumpias and Martinez-Vazquez, 2016).

Empirical studies on taxpayer behavior in Pakistan show that compliance simplicity is a critical factor in encouraging voluntary filing. According to Hassan, Naeem, and Gulzar (2021), simplicity in tax compliance processes has a greater impact on voluntary compliance than even trust in government spending. Although trust in government and perceived fairness of the tax system are important, the study emphasizes that perceived fairness mediates the relationship between tax morale and government spending. This suggests that transparent and efficient public spending—particularly in areas like education and health—can significantly improve tax compliance (Luttmer and Singhal, 2014; Cyan, Koumpias and Martinez-Vazquez, 2016). However, achieving this is challenging in Pakistan due to weak governance and inefficient public spending, which undermine trust in the system. Perceptions of unfair taxation further erode tax morale, as highlighted in the Federal Board of Revenue's 2023 Taxpayer Satisfaction Survey. This underscores the urgent need to address transparency and governance issues to rebuild public trust and enhance voluntary compliance.

B. Erosion of tax morale

The erosion of tax morale is a fundamental issue in Pakistan’s tax system. According to Cyan, Koumpias and Martinez-Vazquez (2016), perceptions of corruption, inefficiency, and misuse of public resources are key drivers of low tax morale. Their research shows that when taxpayers believe that taxes are consumed in corruption or wasted on unproductive projects, voluntary compliance diminishes. The Corruption Perception Index of Transparency International (2023) ranks Pakistan 133 out of 180, reflecting the low public trust in the government’s ability to effectively manage tax revenues. This undermines voluntary compliance, forcing the government to rely on coercive enforcement measures to meet revenue targets.

At an institutional level, Pakistan’s tax administration faces significant challenges in terms of inefficiencies and resource allocation, as highlighted by studies on property tax systems. Performance gaps, exacerbated by limited incentives for tax officials and a lack of accountability mechanisms, reduce overall effectiveness). In high-risk sectors like real estate, weak enforcement and fragmented systems hinder revenue collection. Addressing these inefficiencies requires targeted reforms, including the implementation of performance-based incentives and modernization of administrative practices (Khan, Khwaja and Olken, 2019).

C. Inflation, structural inefficiencies and tax compliance

Inflationary pressures further complicate the tax compliance landscape in Pakistan. High inflation acts as a hidden tax, reducing disposable income and affecting taxpayers' ability or willingness to meet their obligations (Khan and others, 2016). These pressures are compounded by structural challenges in key sectors, such as energy, where inefficiencies—including high subsidies and systemic distribution losses, capacity payments etc.—exacerbate fiscal constraints. Addressing these inefficiencies is critical, as they reduce the resources available for essential public services, which in turn can influence taxpayer perceptions of the government's ability to use revenues effectively.

Reforms in the energy sector, such as improving operational efficiency and better targeting of subsidies, are crucial not only for containing fiscal deficits but also for strengthening the overall fiscal framework. However, reliance on temporary revenue-raising measures or austerity-driven spending cuts risks undermining public trust and tax morale. Instead, focusing on preserving productive public expenditure and aligning energy sector reforms with broader socioeconomic strategies can help create a stable environment for long-term fiscal improvements and sustained tax compliance.

D. Two key streams for improving tax compliance

Given these challenges, Pakistan's path to improving tax compliance can be approached in two main streams.

1. **Strengthening and reforming the FBR:** This involves improving training, integrating technology, and allocating more resources to enhance tax collection capacity. Digitalization of tax administration should be accelerated and partnerships with technology firms and incentives for digital compliance, such as reduced filing fees or priority processing, should be strengthened to improve accessibility. Tailoring SME-specific tax regimes and offering incentives for formalization, such as temporary tax exemptions, are critical to broadening the tax base in under-taxed sectors like agriculture and retail.

2. **Addressing tax morale issues:** Key issues such as inefficiency, lack of accountability, and corruption undermine public trust and limit the tax potential. To rebuild trust, the government must improve transparency in public spending by clearly linking tax revenues to essential services like health and education. Taxpayer education campaigns should be prioritized to reduce misconceptions and foster a culture of compliance. Recognizing taxpayers through public awards or certifications can further encourage voluntary compliance.

As the World Bank report (2023) emphasizes, addressing structural issues such as broadening the tax base and formalizing the informal economy is central to long-term reform efforts. Expanding simplified tax regimes, digitalizing tax administration, and improving land titling systems are essential steps. Sector-specific reforms, such as tiered tax systems for high-risk sectors, could further incentivize formalization. Additionally, lessons from regional and global success stories—such as India's GST digitalization and Indonesia's moral suasion campaigns—can offer practical insights for Pakistan. Coupling these reforms with taxpayer education campaigns will enhance public understanding of the benefits of formalization, thereby improving compliance in both urban and rural areas. Ultimately, a comprehensive strategy that integrates targeted enforcement, formalization incentives, governance reforms, and cross-sector digitalization is crucial to achieving sustained improvements in Pakistan's tax compliance landscape.

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