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Policy Brief

Role of Regulators in Economic Wellbeing: Empirical Evidence from Pakistan

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Executive Summary

This Policy Brief examines the role of regulators in the economic well-being of Pakistan. It highlights that discussions in Pakistan often advocate for more regulations. However, these arguments lack clear empirical evidence. This Brief investigates whether regulations improve economic well-being in Pakistan or contribute to its decline.

Based on a Multiple Regression Model, the findings of this Brief depict that positioning Pakistan on a new economic trajectory of better economic well-being requires addressing numerous regulatory distortions as well as enhancing its quality. The existing regulatory environment has constrained competition and reduced incentives for innovation, leading to adverse effects of regulatory activities in the Pakistan economy.

Recommendations:

To address the adverse effects of regulatory activities, the following recommendations are offered:

- In Pakistan, past reforms were implemented without comprehensive consultation and discussion among stakeholders. As a result, the reforms resulted in suboptimal outcomes. For better outcomes, public-private dialogue forums are required to align the goals of policymakers, businesses, and civil society, reduce regulatory uncertainty, and foster public trust. For this, Pakistan also needs to conduct a comprehensive review of existing regulatory frameworks to identify issues in regulatory measures.
- Pakistan needs to develop regulatory frameworks that focus on promoting investment and sustainable growth rather than solely maximising fiscal and tariff revenue.

Introducing such regulatory reforms may promote competition and innovation as well as ensure the economic well-being of Pakistan.

1. Introduction

Over the years, researchers and policy practitioners have become increasingly interested in exploring the role and function of a regulatory regime in ensuring the economic security of a country. The main rationale for a regulatory regime is righting "market failures". It includes ensuring a "level business playing field" and reducing the adverse distributional effects of public and private enterprises, which arise when they create inequities in income, access to resources, or opportunities within society[1]. This often happens due to the presence of monopolies within public and private enterprises[2].

Regulations also play a significant role in the economic well-being of a country. They ensure a fair and safe marketplace and are essential for consumer protection. They safeguard individuals from harmful monopolistic practices by ensuring that products and services meet strict safety and quality standards. In doing so, regulations benefit consumers through better prices and services.

Regulations can often lead to issues, viz. political mismanagement and corruption, which resulted in their failure in some developing countries. Consequently, the proponents of deregulation perceive regulations as detrimental. According to them, regulations result in unequal income distribution and have a negative impact on employment. This has led to criticism and condemnation of the regulatory model[3][4].

However, due to their contrasting roles, regulations have produced mixed results around the globe. On the one hand, they have contributed to economic well-being in some developed countries. On the other hand, they lead to issues such as political mismanagement, and bureaucratic inefficiencies in some developing countries.

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[1] "Jalilian (2002). Conditions for international-business-expansion: the impact of regulation on economic growth in developing countries–a cross-country analysis. *Regulating Development"*.

[2] "Winston (2007). *Government failure versus market failure: Microeconomics-policy-research-and-government-performance*. Brookings-Institution-Press".

Market Failure: a situation when the market cannot allocate resources efficiently. More specifically, when the supply of goods does not meet its demand.

Level Playing Field: fair competition where all follows the same rules.

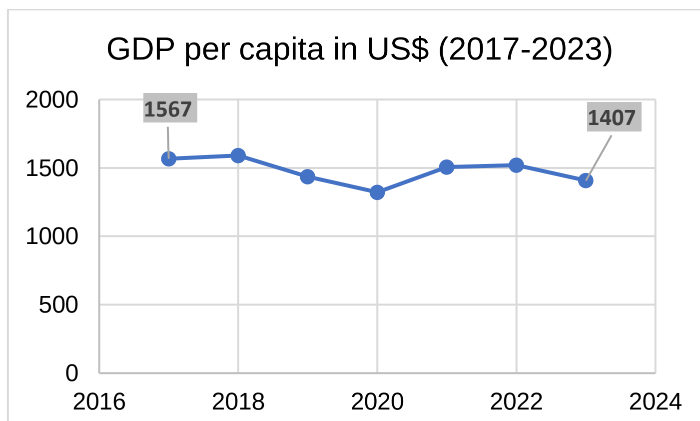
[3] "Jalilian (2002). Conditions for international-business-expansion: the impact of regulation on economic growth in developing countries–a cross-country analysis. *Regulating Development"*.

[4] A study by Winston (2007) qshowed the failure of the regulatory regime in multiple countries. https://citeseerx.ist.psu.edu/document?repid=rep1&type=pdf&doi=3845a0e11fede2c05da9fc4d4f1c8a4f2bec77b1

Over the years, the Government of Pakistan (GOP) has introduced multiple regulatory reforms[5] to achieve economic efficiency and promote inclusive development. Despite the introduction of multiple regulatory institutions, Pakistan economy is in a fragile state. The literature suggests that regulatory factors significantly impact a country's economic well-being. Implementing more or poor regulations consumes significant time and resources that could otherwise be allocated to productive activities. Hence, the role of regulatory factors becomes crucial, particularly in regions like Pakistan, where the topic of regulation has not been extensively explored despite the introduction of multiple regulatory reforms. In Pakistan, discussions tend toward advocating for an increase in regulations without clear empirical evidence on whether existing regulations are effective and why, despite their presence, Pakistan's economic well-being has continued to decline over the years (Figure 1). In essence, is it improving economic well-being or deteriorating it? or the GOP is increasing them without any economic rationale?

This Policy Brief aims to bridge this literature gap by providing quantitative evidence on the influence of regulatory policy on Pakistan's economic well-being. Using a multiple regression model, the study explores "what role the regulatory institutions play in economic well-being of Pakistan and identifies factors that may impede their success.

Figure 1: Economic Wellbeing of Pakistan



Source: WDI (2024)

The findings of this Brief depict that positioning Pakistan on a new economic trajectory of better economic well-being requires addressing numerous regulatory distortions as well as enhancing its quality. The existing regulatory environment has constrained competition and reduced incentives for innovation, leading to adverse effects of regulatory activities

[5] Such as the Competition Commission of Pakistan (CCP), Pakistan One Window, Securities and Exchange Commission of Pakistan (SECP), NEPRA, PEMRA, OGRA, and other institutions linked with FBR & TDAP)

in the Pakistan economy. Eliminating distortions in regulations will promote competition and innovation, ensuring economic well-being.

The rest of this Policy Brief is organised as follows: Section 2 briefly summarises the theoretical and empirical literature on the role of regulators. Section 3 discusses the methodology and the data set used in this brief. Section 4 reports the regression results. Finally, section 5 concludes and provides the implications and recommendations of the study. The outcomes of this policy brief ratify that the quality of state regulation impacts economic well-being.

2. Theoretical and Empirical Literature

A significant body of empirical and theoretical literature on economic regulation developed in the nineteenth century (Laffont and Tirole, 2000; Levy, 1994; Newbery, 1999). The theory of regulation is based on the premise of an uneven business and economic playing field, particularly in developing countries. In developing countries, market failures tend to be more evident (Stern, 1991). (Stiglitz, 1998) highlights that implementing market regulation does not always lead to improved economic welfare, especially in imperfect market conditions. has identified various scenarios in which regulation may actually reduce economic welfare rather than enhance it.

Cook (1999) analysed twelve infrastructure industries across six developing Asian economies. In Asia, regulatory changes after 1994 produced inadequate results in terms of economic well-being. Hodder (1999) likewise pointed out significant discrepancies in regulatory practices in the United Kingdom and the United States, highlighting a notable deviation from best practices. Cook argued that establishing effective regulation and a competitive environment is a challenging and lengthy process.

Recent research emphasises the complex role of regulatory institutions in promoting economic efficiency. Djankov et al. (2002) argue that effective regulatory frameworks can lower transaction costs, improve resource allocation and contribute positively to economic well-being. Furthermore, Rodrik (2007) states that streamlined regulations that are tailored to the local economy/context are essential for sustainable growth.

Hussain (2020) has shown that regulatory reforms led to significant economic benefits in South Asia. Highlighting the importance of sector-specific governance. Ahmed et al. (2021) explored the interplay between corruption control and regulatory effectiveness in

India, concluding that robust regulatory frameworks correlate positively with economic well-being and reduced income inequality.

These studies collectively illustrate that while governance broadly influences economic outcomes, the quality of regulation is a crucial determinant. However, Pakistan's regulatory framework faces distinctive challenges, and efforts to increase regulation have not translated into improved economic welfare (Waqar, 2022).

Moreover, the role of the new regulatory state remains under-explored (empirically), especially in countries like Pakistan. Countries like Pakistan have unique socioeconomic and institutional issues. This Policy Brief explores the relationship between regulatory governance and economic well-being. Meanwhile, focusing specifically on the role of regulators in economic well-being. In doing so, it adds to the body of existing literature. Traditionally, regulations are discussed in Pakistan as a determinant of productivity or income disparities (Martins, 2023). In doing so, it highlights the critical role of regulation in economic well-being in the case of Pakistan.

3. METHODOLOGY

This Policy Brief explores the role of regulatory factors affecting Pakistan's economic well-being using WDI data from 1995 to 2023. This section presents details about the methodology employed in designing, collecting, and analysing the data.

Multiple Linear regression

Multiple linear regression (MLR) is a method to examine the relationship between dependent variables (DV) and independent variables (IV). The MLR is based on the Ordinary Least Squares (OLS) estimation that identifies how different independent variables influence the DV and determines the direction and nature of their relationships. Based on Hall (2021), mathematically, the relationship is:

$$Y_t = \beta_o + \beta_1 X_{1t} + \beta_2 X_{2t} + \ldots + \beta_k X_t + \varepsilon_t \quad (1)$$

Where

Y_t the effect or (DV) dependent variable

X is the source of the cause, or the (IV) independent variable

β_s is unknown, fixed parameters are intercept and slope.

ε_t random error term

t is the time-period ranges from 1995 to 2023

Using the MLR model, this study regresses the GDP per capita (DV) on a set of IVs. The coefficients depicted by the model capture the impact of regulatory institutions on economic well-being.

Variables of the Study

Studies conducted globally use macroeconomic factors viz. trade openness, tariffs, and government involvement in economic activities, to evaluate the impact of regulatory bodies on economic well-being. Based on Jalilian (2002) and Kraay (2022), this Policy Brief use all these variables in the analysis (details of the variable provided hereunder).

The regulatory or institutional quality measures data is available on the World Bank website: WDI (World Development Indicators). Regulation indicators used in this study are regulatory quality and government effectiveness measures (these indicators can be found in Smith (2019) and Kraay (2022) and are highly correlated with regulations).

The data set used in the analysis covers 1995 to 2023. Information on regulatory governance is available. However, the tariff data was unavailable for 2022 and 2023. Hence, the WTO data was used for 2022 and 2023.

As stated, the DV in this study is GDP per capita. This DV is commonly used as a vigorous measure of economic well-being. This metric shows the average economic output per person and helps capture the living standards within a country. By utilising GDP per capita, the study aims to provide meaningful insights into the role of regulators on the economic well-being of Pakistan.

The IV include multiple governance and economic indicators provided by the WDI (World Bank). The data is based on the views on the quality of regulations provided by many enterprise, citizen and expert survey respondents in industrial and developing countries, including Pakistan. These data are gathered from several survey institutes, think tanks, international organisations, non-governmental organisations, and private sector firms. Specific details about the variables used in this study is provided hereunder:

"Regulatory Quality" is used to capture the effectiveness of regulations in ensuring a fair and efficient economic environment. It shows how well regulations support business activity without imposing excessive burdens.

"Voice and Accountability" depicts the ability of citizens to participate in governance and hold authorities accountable. It shows the quality of democratic institutions.

Political Stability/Absence of Violence indicates the level of stability and security in the country. Stable political environments encourage investment and economic activities, while violence deters economic-well-being.

“Control of Corruption” shows/measures efforts to limit corruption and allows efficient use of resources. It, however, promotes trust in institutions.

“Government Effectiveness” captures the quality of public services and policy implementation. Effective governance is crucial for creating an environment conducive to inclusive development.

“Tariffs” is a measure of market/economy openness. Lower tariffs promote trade liberalisation. Meanwhile, high tariffs protect domestic industries but may hinder competitiveness. These variables collectively represent Pakistan’s overall regulatory environment.

Parameter estimates and data for a specific regulatory entity are unavailable in Pakistan. For some entities, data for a few years is only available, but it would not be individually reliable due to degrees of freedom issues[6]. This is the case for using broader WDI variables that this study intends to use in the analysis, such as government effectiveness (GE) and regulatory quality (RQ). Such variables are highly correlated with economic growth and, therefore, included in the same regression to estimate the contribution of each variable.

4. Regression Results and their Interpretations

This section shows the regression results and interprets the Policy Brief’s results in the context of evaluating the role of regulators in Pakistan’s economic well-being. It focuses on explaining the relationship between the IV (regulators) and the DV (economic well-being).

Based on Equation 1, results of the regression model are provided hereunder:

Table 1: Regression Statistics		
DV: GDP per capita (In US$)		
IVs	*Coefficients*	*Significance*
Intercept	2170.92	***
Regulatory Quality	-1124.33	***
Voice/Accountability	1022.97	***

[6] Hall (2021). *Applied-econometrics*. Bloomsbury-Publishing.

Political Stability/Terrorism/Absence of Violence	-241.60	***
Corruption Control	1188.15	***
Effectiveness of Government	290.04	*
Tariffs	-111.07	**
R^2: (0.84)		
Note: "***","**", and "*", shows 5%, 10%, and, 15 significance level, respectively.		
Source: Author's estimations, based on WDI data from 1995 to 2023		

The above results reported in Table 1 are based on the MLR model and WDI country data. Table 1 reports eight coefficients containing multiple independent variables from the data set. The regression coefficients between the regulatory governance indicators, namely government effectiveness and regulatory quality, etc., have positive signs. However, other variables have negative signs. The model has an R square (goodness of fit) value of 0.85, which shows that the results of the model are reliable[7].

Interpretation of Results

This segment explains the relationship between the regulators and economic well-being. Regulatory Quality, with a coefficient of -1124.33 and a p-value of 0.01, shows that, in Pakistan's case, higher regulatory quality is associated with decreased GDP per capita. It indicates that regulatory frameworks in Pakistan are not properly implemented. It is restrictive or misaligned with economic well-being objectives. Effective regulation typically enhances economic performance. However, in Pakistan, a challenging business environment marked by strict regulatory enforcement creates significant costs as firms spend resources navigating these regulatory hurdles, which negatively impact economic well-being as individuals face hurdles in their business and economic activities[8].

In essence, this negative coefficient for regulatory quality presents a paradox. It suggests that regulatory frameworks are counterproductive in their current state/form. This implies the rationale for regulations is to promote economic efficiency. However, their poor design, weak enforcement, or excessive complexity deter rather than support economic well-being in the case of Pakistan.

The meagre impact of government effectiveness, despite its theoretical importance, highlights the disconnect between policy formulation and implementation in Pakistan. This

[7] Ibid.

[8] World Bank (2023). Transforming-Pakistan's-Private-Sector. Discussion-Note 3.

stems from capacity constraints, bureaucratic inefficiencies and sludges, or a lack of public sector accountability, which undermine effective governance's potential benefits. Such issues resonate with challenges other developing countries face, where institutional indolence and political instability hinder governance reforms.

Comparing these findings with those of other developing nations reveals similarities and unique challenges. For instance, countries like India and Bangladesh have faced similar issues of regulatory inefficiency but have made progress through targeted reforms. However, Pakistan's persistent political instability and lower levels of institutional trust exacerbate the impact of these challenges, making regulatory reform even more critical to achieving sustainable economic growth.

Voice and Accountability, with a coefficient of 1022.97 and a p-value of 0.00, show a positive and significant relationship. It moreover suggests that greater public participation and accountability are conducive to higher GDP per capita in the case of Pakistan. This states the importance of governance structures that enable transparency and inclusivity in regulatory and institutional processes.

Control of Corruption with a coefficient of 1188.15 and p-value of 0.001 shows a strong positive and significant coefficient, showing that better control of corruption correlates with improved economic outcomes. It highlights the critical role of further reducing corruption in enhancing the effectiveness of regulatory institutions.

The positive signs/relationships, in the context of Pakistan, are due to Pakistan's efforts to implement new laws such as the Right to Information (RTI) law, Punjab Transparency and the Right to Information Act 2013 [9]. These laws helped Pakistan increase transparency in governance, allow citizens to access government records, and reduce corruption. Such efforts have imp.

Political Stability and Absence of Violence/Terrorism with a coefficient of -241.60 and p-value of 0.03. The (negative) coefficient indicates that the current state of stability does not benefit the economy significantly. Although the government has undertaken regulatory and governance reforms, such as digitising public services and enhanced accountability mechanisms. However, these initiatives have yet to yield substantial economic shares due to issues such as political instability and weak institutional coordination.

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[9] Sultan (2023).nRight-to-information-Act-2013in-Khyber-Pakhtunkhwa-Pakistan

Tariffs with a coefficient of -111.07 and p-value of 0.07 have a negative sign. This indicates that higher tariffs slow-down economic growth. This also found in the international trade theories. Theories states that excessive tariffs create trade barriers and reduce economic efficiency/well-being. This negative coefficient results from multiple strict trade regulations, restrictions-on-imports, and the use of tariffs as a revenue source by the GOP. Similar results are also stated in Kalemli (2019). The study states that an increase in the Indian tariffs negatively impacted its economy[10].

5. Conclusions

This Policy Brief states that the quality of regulation affects the economic functioning of an economy (based on the World Bank (WDI) data). The results suggest a connection between regulatory/quality and economic well-being. In Pakistan, ensuring effective regulatory structures requires more than increasing regulatory bodies. It needs reforms in the technical design of regulatory instruments. It also depends on the quality and functionality/implementation of regulatory institutions.

In summary, putting Pakistan on a new economic trajectory requires addressing multiple distortions and improving the quality of regulations. As stated, the current regulatory environment has multiple issues. The variables used for the regulatory quality show that they are negatively impacting the economic well-being of the country. Removing detrimental regulations is needed to spur competition, innovation, and ensure economic well-being.

Further research is needed to determine how economic growth and regulatory quality are causally related. Although there are solid theoretical reasons to believe that better regulation spurs economic expansion. An increase in economic performance may also impact the quality of regulations.

Moving forward, future research should focus on exploring the causal relationships between declining regulatory quality and economic performance to better understand the underlying mechanisms. Additionally, sector-specific analyses of regulatory impacts can be explored, particularly in key industries like energy, telecommunications, and finance, to provide targeted insights for policymakers.

Recommendations

[10] Chen (2019). Effects-of-corruption-&-regulation-on-business-entrepreneurship.

This Policy Brief concludes that the role of regulators is suboptimal in Pakistan. To address these issues, the following recommendations are provided:

- Previous reforms that have been carried out based on less consultation/discussion have suboptimal results (as shown in this Brief). Incorporate public-private dialogue forums to align the goals of policymakers, businesses, and civil society, reducing regulatory uncertainty and fostering trust. Pakistan need to conduct a detailed, comprehensive review of existing regulatory frameworks to identify issues, overlaps, and restrictive measures.
- Establish a working/functioning one-stop regulatory body near busness hubs to handle economy/business-related processes. This will ensure efficiency and reduce bureaucratic delays by reducing time and hierarchical levels.
- Develop regulatory frameworks with a focus on promotion investment and sustainable growth rather than solely maximising tariff revenue.
- Introduce performance-based incentives for regulators and businesses within a 2-year period to encourage compliance and innovation.
- Develop standardised-communication-protocols and regular joint meetings to reduce friction and clarify agency objectives.
- Involve experts from academia, government, and business community. Invest in capacity-building programs for regulators to improve enforcement capabilities and reduce discretionary practices.

Action Matrix

Action Area	Pathways to Solution	How to Implement Each Solution	Actor Responsible	Timelines
National Regulatory Body	Rather than revenue collection targets, economic well-being oriented regulatory framework with a focus on creating a positive regulatory environment that fosters long-term economic development.	Align economic wellbeing with 5E framework in parallel with regulations.	SECP, CCP, NEPRA, FBR	Short-term: CCP with a clear mandate and political will. Long-term: Regulatory Commission of Pakistan that redesign the regulatory framework and ensure harmony in terms of non-contrasting goals/objectives
Communication Barrier	Strengthen coordination/communication across regulatory bodies to streamline reforms and outcomes of policies as well as avoid conflicts in goals/objectives.	A communication network between agencies and stakeholders, ensuring review meetings.	Ministry of Information	Short-term: Develop coordination protocols and cross-agency working groups.

				Long-term: Establish a unified platform for continuous communication and reform alignment.

About the authors

Dr. Aneel Salman holds the distinguished OGDCL-IPRI Chair of Economic Security at the Islamabad Policy Research Institute (IPRI) in Pakistan. As a leading international economist, Dr Salman specialises in Monetary Resilience, Macroeconomics, Behavioural Economics, Transnational Trade Dynamics, Strategy-driven Policy Formulation, and the multifaceted challenges of Climate Change. His high-impact research has been widely recognised and adopted, influencing strategic planning and policymaking across various sectors and organisations in Pakistan. Beyond his academic prowess, Dr Salman is a Master Trainer, having imparted his expertise to bureaucrats, Law Enforcement Agencies (LEAs), military personnel, diplomats, and other key stakeholders furthering the cause of informed economic decision-making and resilience.

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