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How Political Competition and Political Institutions Influence Inflation: Empirical Evidence from Developing Countries

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Abstract

The study empirically explores the impact of political competition and political institutions on inflation rates in emerging economies, taking into account political institutions' moderating role. This study examined data from 57 developing countries spanning 2000 to 2018. The empirical analysis was performed using a two-step System Generalized Method of Moments (system-GMM) estimation technique. The analysis yields two key findings. In a democratic regime, effective competition among politicians lowers inflation. However, the effect of political competition on inflation is conditional on political institutions. Nations with strong institutional structure and balanced competition are associated with better inflation performance.

Keywords: democratic regime, inflation, political competition, political institutions, GMM

JEL Codes: D72, P16, E31, C33

Introduction

Inflation is a complicated economic phenomenon that has far-reaching consequences for economic growth, income inequality, poverty, and general economic stability. Inflation control is a critical task, especially for emerging nations, owing to its broad economic and social ramifications. While traditional economic factors, such as money supply, demand-pull impacts, and cost-push shocks are frequently emphasized in inflation studies, institutional factors are critical in comprehending inflationary trends (Cukierman et al., [1992b](#)). Institutional economists (North, [1990](#)) stressed that institutional differences are the primary explanation for comparative growth. They contend that weak institutions lead to poor macroeconomic performance. Likewise, countries with deficient

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institutions may experience sluggish and unpredictable growth, together with elevated inflation rates (Aisen & Veiga, [2006](#)).

Among institutions, Institutional economists agree that political institutions, like economic institutions, shape long-run economic growth (Acemoglu, [2005](#)). However, they point out the possibility of disagreement among different groups to choose among underlying political institutions that may lead towards inappropriate policy options. This is political competition among different groups that leads to disagreement that shapes institutional setup (Alfano & Baraldi, [2016](#); Batool & Haq, [2024](#); Stigler, [1972](#)). Political competition is characterized by the existence of various parties or candidates with various policy platforms, ideologies, or leadership philosophies, providing voters with the chance to make decisions depending on their preferences and values (Kriesi et al., [2012](#)).

Inflation is a significant economic indicator that influences countries' economic well-being and stability. Understanding the drivers of inflation is important, especially in developing nations, where economic structures and political institutions are often unstable. This study investigates the influence of political variables on the sample of emerging nation's inflation rates. Previous researchers have thoroughly examined the economic drivers of inflation, including monetary policy, fiscal deficits, and supply shocks (Barro, [1995](#); Fischer, [1993](#)). However, the political causes of inflation have attained very little attention, especially in developing nations. Therefore, the current study seeks to answer the question, how does political competition influence inflation? Political competition increases responsibility and pressure for sensible macroeconomic policies, thereby lowering inflation by limiting unsustainable budgetary practices and raising accountability (Keefer & Stasavage, [2003](#)). Intense competition, on the other hand, can lead to short-term, populist measures aimed at obtaining political support, which fuels inflationary pressures (Nordhaus, [1975](#)).

Similarly, political stability is critical in ensuring that economic policies are consistent and long-term, lowering the chance of rapid changes that might destabilize pricing. Frequent government changes and changes in policy in politically insecure contexts can lead to irregular inflationary tendencies, hurting the economy and its growth prospects. Political stability possibly leads to more predictable and beneficial economic strategies (Aisen & Veiga, [2006](#); Cukierman et al., [1992a](#); Telatar et al., [2010](#)). Subsequently, in exploring the association between political competition

and inflation, this study tries to address the gap in the current knowledge about how political competition impacts inflation while considering the moderating effect of political stability.

The kind of political system (presidential, parliamentary, or semi-presidential) also modifies the impact of political competition on inflation. Each system has different levels of executive authority concentration, checks and balances, and legislative supervision, which can affect how economic policies are developed and implemented (Batool & Haq, [2024](#)). For instance, under presidential systems, the executive branch may have greater autonomy over fiscal and monetary choices, often at the price of balances on authority that might prevent inflationary policies (Persson & Tabellini, [2003](#)). Parliamentary systems, on the other hand, may benefit from increased legislative control, fostering balanced and stable policy structures that are more responsive to inflation (McManus & Ozkan, [2018](#); Roubini & Sachs, [1989](#)). These structural disparities highlight the necessity to comprehend how political institutions shape economic policy choices, especially when considering the setting of developing nations with changing institutional framework. In this perspective, the study at hand attempts to address a gap in existing research by exploring how political competition affects inflation while accounting for the moderating function of political systems.

This study makes two major contributions to the body of literature. Firstly, the current study attempted to fill a significant gap in the field by investigating the influence of political competition on inflation in 57 developing countries between 2000 and 2018. Furthermore, this study tackles endogeneity problems that arise in macroeconomic studies, including political variables, by applying a two-step system (GMM) method. Using this strategy, robust estimates may be attained while minimizing biases caused by “reverse causality” or “omitted variable bias”, both of which are two major issues in panel data analysis (Blundell & Bond, [1998](#)). This technique is especially appropriate for the current study. This is because it provides a better understanding of the dynamic nature of inflation as well as potential relationships between political influences and economic outcomes.

Secondly and more crucially, it looks at how political competition is channeled via political institutions. So, this study indicates how the kind of political system (presidential, parliamentary or semi-presidential system)

and the level of political stability provide conditional effects of political competition on inflation. Previous empirical work has often ignored these interaction effects, usually analyzing institutional design or political competitiveness individually instead of together. This study provides an expanded view of how political factors shape price stability by explicitly modeling both the direct and conditional effects. It also offers policy insights into how developing nations can create institutions that benefit from political competition without experiencing higher inflation. Furthermore, the reported empirical findings are validated by the use of marginal effects analysis, which also reveal the asymmetries in the impacts across several levels on the underlying variables.

Literature Review

For decades, economists and political experts have worked on exploring the dynamics of political struggle and inflation. Political competition, which is often defined by competition between political parties, has the potential to impact economic policies and results, including inflation. The purpose of this literature review is to combine current research on the link between political competition and inflation, pointing out major ideas, empirical results, and research gaps in the field.

Theoretical Review of Literature

The relationship between political competition and inflation has been researched from a variety of theoretical perspectives. The political business cycle hypothesis asserts that politicians use fiscal as well as monetary policy to affect election consequences (MacRae, [1977](#); Nordhaus, [1975](#)). According to this theory, to strengthen their prospects of re-election, politicians may increase spending or reduce taxes before elections, resulting in greater inflation after the election (Sieg & Batool, [2012](#)). Additionally, Hibbs ([1977](#)) proposed the partisan hypothesis, which contends politicians have different economic priorities and that left- and right-wing parties have distinct economic agendas. Left-wing parties emphasize employment above inflation, which may result in greater inflation rates, whereas right-wing parties concentrate on lowering inflation at the risk of increased unemployment. According to Alesina and Tabellini ([1990](#)), increased political competition increases policy uncertainty since frequent government transitions might result in conflicting economic policies. This uncertainty may erode the legitimacy of anti-inflationary policies, resulting

in increased inflation. However, according to Rogoff (1985) and subsequent academics, independent central banks may reduce inflationary pressures caused by political competition by prioritizing long-term price stability above short-term political advantages.

This corpus of theoretical research emphasizes the complex and diverse character of the link between political competition and inflation, with a focus on election cycles, party ideology, policy uncertainty, and the independence of institutions in influencing inflationary outcomes.

Empirical Literature

Empirical research has repeatedly shown that political competition may lead to increased inflation, particularly in contexts with weak institutional structures. Alesina and Roubini (1992) examined OECD nations (The Organization for Economic Co-operation and Development) and discovered that frequent elections and increased political competition often lead to greater inflation as a consequence of opportunistic fiscal and monetary measures designed to secure electoral support. Drazen (2000) conducted a detailed study, demonstrating how political instability and great competitiveness frequently lead to short-sighted economic decisions, imposing inflationary pressures. Bonomo and Terra (2005) observed that a higher level of political competition is typically linked with greater inflation, especially in nations that hold weaker institutional frameworks.

Desai et al. (2003) examined how income inequality and democracy shape inflation outcomes by measuring political competitiveness through democracy. The authors started from the idea that there are two opposing theoretical mechanisms. These include *the populist view*, which holds that democratic competition raises inflation because politicians react to public demands for transfers generated by inflation taxes. The second one is *the state-capture view*, which holds that democratic competition lowers inflation because elites lose their power and are unable to use inflation to extract rents. In order to determine which effect is more dominant under which circumstances, the authors constructed a model in which the overall impact of democracy on inflation is contingent upon the prevailing degree of economic disparity. Using dynamic panel estimators and panel data for over 100 countries between 1960 and 1999, the authors demonstrated that democracy has a conditional impact on inflation. In low-inequality countries, democratic competition reduces inflation, but in high-inequality

countries, populist redistribution pressures increase inflation. Their findings demonstrated that political competition's inflationary effects are not consistent across circumstances rather rely on underlying structural factors.

Aisen and Veiga ([2008](#)) conducted further research to support these results. The authors considered 100 countries' data from 1960 to 1999 and applied the system-GMM model to correct the endogeneity and persistence in inflation. The authors revealed a clear link between political instability, competition, and high inflation. Furthermore, the significance of institutional quality was also emphasized in buffering these effects. According to Samimi and Motameni ([2009](#)), a stable political climate allows a country to implement inflation control measures. These include fiscal and monetary policies, which may help stabilize prices and reduce uncertainty. However, economic activity can be disrupted by political upheaval, which makes it more difficult to put reasonable inflation control measures into place. Batool and Sieg ([2009](#)) conducted an empirical analysis of how macroeconomic conditions affect German election results and discovered compelling evidence that economic performance has a major impact on voter behavior and the stability of political power.

Similarly, Telatar et al. ([2010](#)) examined how political instability and political freedom affect inflation for the time period 1983-2002 by using a system-GMM panel of 39 countries. They showed that political instability increases inflation in emerging and high-inflation nations, with the effect being higher in politically-freer regimes. Their findings indicated that the influence of political instability on inflation varies per nation, depending on both the inflation environment and the extent of political freedom. One of the most thorough cross-country evaluations of the relationship between macroeconomic success and the kind of democratic administration is offered by McManus and Ozkan ([2018](#)). They analyzed inflation, inflation volatility, economic development, and inequality under presidential and parliamentary administrations using data from over 100 countries between 1950 and 2015. The authors demonstrated that compared to parliamentary regimes, presidential regimes are linked to average inflation that is around four percentage points greater and more unpredictable. These empirical studies highlight the important impact of political competition and political institutions on inflation.

Methodology

The methodology section comprises four subsections. Section 1 specifies the empirical models, while section 2 explains the definition and structure of the variables under discussion. Lastly, subsection 3 describes an estimation technique.

Empirical Models

This section presents the empirical specifications to empirically assess the influence of political competition on inflation while taking into consideration the moderating role of political institutions. The empirical analysis is conducted by estimating three distinct empirical specifications to meet the study objectives.

$$\text{Inf}_{it} = \beta_0 + \beta_1 \text{pc}_{it} + \beta_2 \text{pi}_{it} + \sum_{j=1}^n \gamma_j X_{it} + \varepsilon_{it} \quad (1)$$

In the above equation, Inf_{it} indicates the inflation rate in country i at period t . pc_{it} represents political competition, which is our variable of interest. Similarly, X_{it} is the vector of control variables that includes economic growth (g_{it}), age dependency (dep_{it}), urbanization ($urbn_{it}$), unemployment rate ($unem_{it}$), and trade (top_{it}). ε_{it} indicates the error term that captures all omitted factors in the empirical model.

To investigate the influence of political competition on political institutions, we include an interaction term in our baseline model (eq. 1). Following (Alesina et al., 1996; Barro, 1991), two aspects of political institutions were captured, namely political system and political stability. We employ Partial derivatives of equation (2) to evaluate the marginal impact of political competition on inflation rate across different political system values.

$$\text{INF}_{it} = \beta_0 + \beta_1 \text{pc}_{it} + \beta_2 \text{sys}_{it} + \beta_3 (\text{pc}_{it} * \text{sys}_{it}) + \beta_3 \text{regm}_{it} + \sum_{j=1}^n \gamma_j X_{it} + \varepsilon_{it} \quad (2)$$

Where, sys_{it} denotes political system, and $(\text{pc}_{it} * \text{sys}_{it})$ is the interaction term of political competition and political system.

$$\text{INF}_{it} = \beta_0 + \beta_1 \text{pc}_{it} + \beta_2 \text{stab}_{it} + \beta_3 (\text{pc}_{it} * \text{stab}_{it}) + \beta_3 \text{regm}_{it} + \sum_{j=1}^n \gamma_j X_{it} + \varepsilon_{it} \quad (3)$$

Similarly, stab_{it} indicates stability of institutions, and $(\text{pc}_{it} * \text{stab}_{it})$ is the interaction term of political competition and institutional stability that

captures the effect of political competition on inflation rate, conditional on the stability of institutions. We also include the democratic regime variable($regm_{it}$); which identifies a country's political system as either democracy or autocracy.

Definition and Construction of Variables under Consideration

The empirical inquiry is carried out on a panel of 57 developing countries from 2000-2020¹ The dependent variable is inflation rate(Inf_{it}), and we have used consumer price index (CPI). Among independent variables, political competition (pc_{it}) is our primary variable of interest, which is the composite index based on the determinants of the “competitiveness and regulation of political participation”. To assess the role of political institutions, we consider their constitutional arrangements (political systems) sys_{it} and stability($stab_{it}$). In terms of system, different political systems (e.g., presidential, parliamentary) may have different responses to governance performance. We also incorporate the democratic regime variable($regm_{it}$); which captures a country's political state, that either democracy or autocracy.

Political competition is a basic aspect of democratic regimes. However, political competition of varied kinds and degrees may exist in all systems, even those that might not be entirely democratic. To summarize, democratic regimes require political competition, but these terms are not purely interchangeable. Keeping in view the standard inflation models, we used a set of control variables. Table 1 shows a description of the variables utilized in this study along with data sources.

Table 1

Variable Description and Data Sources

Variables	Name	Description	Data Sources
Inflation Rate	Inf_{it}	A rise in the average level of prices for goods and services over a given time in an economy is known as ‘inflation’. The consumer price index (CPI) measures inflation by calculating	WDI, World

¹The sample is split into lower middle and upper middle nations to prevent any potential heterogeneity.

Variables	Name	Description	Data Sources
Political Competition	PC _{it}	the annual percentage change in the cost to the typical consumer of obtaining a basket of goods and services that can be set or updated on a regular basis, such as once a year. The Laspeyres formula is commonly used. We measure Political competition by using a composite measure of overall political competition, namely ‘POLCOMP’ from the Polity IV dataset. This is the “composite index” that is based on the determinants of the competitiveness and regulation of political participation. It is scaled from 1 to 10, the higher numbers signifying stronger political competition.	Polity V dataset ²
Political Systems	SYS _{it}	The presidential system is a single executive system in which the president is chosen directly by an electoral college. The parliamentary system, on the other hand, is a political system in which a parliamentary legislature elects the chief executive. The political system is treated as "2" if a parliamentarian system exists, otherwise "0" for a presidential system, and “1” for an assembly-elected president (Gerring et al., 2008)	DPI of the World Bank (Beck et al., 2001)
Political Stability	stab _{it}	Political stability is the capacity of a government or political system to maintain continuity and avoid significant shocks or conflicts that would endanger its legitimacy and	Polity V dataset

²Polity V dataset is constructed by “Center for Systematic Peace”.
<https://www.systemicpeace.org/polityproject.html>

Variables	Name	Description	Data Sources
Regime	regm _{it}	its ability to function. 'DURABLE' is used as a proxy for political stability, using the Polity V dataset that captures the lifespan of a polity. The variable is treated as a dummy; it takes 1 if a country's political regime is democratic otherwise, it takes 0.	Polity V dataset
Economic Growth	g _{it}	The GDP per capita growth rate is used to measure economic growth.	WDI, World Bank
Age Dependency	dep _{it}	Age dependence ratio is a ratio of dependents. (Those under the age of 15 to those beyond the age of 64) to those of working age. The statistics is shown as a proportion of dependents, each 100 persons of working age.	WDI, World Bank
Urbanization	urbn _{it}	According to national statistics agencies, the total number of people who live in cities is referred to as the urban population.	WDI, World Bank.
Unemployment Rate	unem _{it}	Unemployment can be described as the proportion of the labor force that is jobless but seeking work. The unemployment rate is calculated as a proportion of the total labor force.	WDI, World Bank.
Trade Openness	opp _{it}	Trade openness is measured through the trade-to-GDP ratio.	WDI, World Bank.

Estimation Technique

The study uses cross-sectional panel data, and the empirical models used in this study are of a dynamic nature. This is why, for the empirical analysis of the models, the GMM developed by Arellano and Bond ([1991](#)) was used.

Furthermore, the two-step system-GMM technique suggested by Arellano and Bover (1995) and Blundell and Bond (1998) has been employed to resolve the issues of endogeneity as well as heterogeneity across cross-sections, as the time is lower than the total number of cross-sections ($N=57 > T=18$). Moreover, for dynamic panel data models where past inflation levels influence present inflation, system GMM is perfect. By using lagged values as instruments, it effectively addresses endogeneity issues brought on by potential reverse causation between inflation and political factors (Blundell & Bond, 1998). So the difference GMM addresses the endogeneity of an empirical model using lagged variables, whereas system GMM combines level and difference equations into a single system.

In addition to addressing the trouble of weak instruments, applying “system GMM” boosts the confidence of estimations while examining inflation. Additionally, the two-step system GMM's efficacy and capacity to generate reliable standard errors led to its selection over the one-step version. Estimates are more accurate because they take into consideration likely heteroskedasticity and autocorrelation in cross-country data (Roodman, 2009). In addition, the Hansen test and the serial correlation test have been used to assess the consistency of the GMM estimators in accordance with Arellano and Bover (1995).

Empirical Results

This part of the study incorporates the results of the empirical models as illustrated in equations 1 to 3. So, Table 2 shows the estimated results of the empirical models in the overall sample of developing countries. As discussed earlier, the dependent variable is inflation rate(Inf_{it}). All specifications have the same set of standard control variables; however, variables of interest vary across specifications that allow for sensitivity analysis. The variable of interest is political competition(pc_{it}), holds a negative sign, and is statistically significant across all empirical models.

This result indicates that democratic regimes lower inflation rates in developing nations. Political practices driven by favoritism and rent-seeking are the cause of macroeconomic issues, as one of them is inflation. However, a democratic institutional structure that is defined by participation, contestation, and openness helps to reduce inflation. Democratic governments hold a parting of powers amid the executive and

legislative branches. As a result, it restricts politicians' latitude, keeps them from enacting economic policies that favor a specific socioeconomic class, and restrains them from making inefficient policies (Fenira, [2014](#)). Under these circumstances, these two branches (executive and legislative) effectively discipline one another and become more responsible to the people for the policies they choose (Satyanath & Subramanian, [2007](#)). Therefore, in the case of developing nations, there exists a negative relationship between democracy and inflation rate (Rodrik, [2000](#)).

As per model (4), the political system and political competition have a negative individual effect that is statistically significant at the 1 percent level. This finding highlights that political competition increases government efficiency. In parliamentary systems, the existence of greater accountability and collaboration may help reduce inflation rates. Parliamentary systems have direct accountability from the executive branch to the legislature, leading towards more responsible fiscal and monetary policies. They also require cooperation among political parties, resulting in more stable economic policies. Parliamentary systems offer greater policy stability due to smoother leadership changes, unlike presidential systems (Alesina & Summers, [1993](#)). However, the effect of political competition on inflation that is conditional on political systems is positive and statistically significant at the 1% level. Specifically, the magnitude of the interaction term is 2.645. The existence of polarization and a lack of sound political competition are linked with inefficiency and poor macroeconomic performance (Sørensen, [2014](#)). Politicians who are engaged in intense competitive politics may end up enacting populist measures, such as price restrictions or subsidies, which may impede the workings of the market and may raise inflation (Roubini & Sachs, [1989](#)).

It is also worth noting that the results of the disaggregated models are compatible with aggregated sample of countries with a slight change in the magnitude of the coefficients. Therefore, the outcomes of the disaggregated sample are given in Tables 3 and 4 along the explanation of the aggregated model results (Table 2).

Political stability is one of the important factors that plays a crucial role in reducing inflation. The results of the aggregate model (model 5 of Table 2) indicate that political stability has a negative and significant influence on the inflation rate, specifically; the size of the coefficient of political stability is 0.064. Political stability is crucial to reduce inflation, as instability may

lead towards higher rates due to uncertainty, while greater stability is more likely to result in lower inflation rates. Political instability, such as frequent cabinet changes, makes it challenging to sustain low inflation due to its uncertainty and short-term orientation (Aisen & Veiga, [2006](#)). The lower rates of inflation are more probable to be seen in nations with more political stability (Abaidoo & Agyapong, [2022](#); Telatar et al., [2010](#)).

However, the conditional effect of political competition and political stability ($pc_{it} * stab_{it}$) is positive and statistically significant at the 1 percent level as indicated in model 6 of Table 2. This result can be justified, as developing countries with competitive politics and stability may still have institutional weaknesses that hinder effective economic policy-making and enforcement, potentially contributing to inflation (Acemoglu & Robinson, [2008](#); Cukierman et al., [1992b](#)). In contrast to low- and middle-income countries, the effect of political competition conditional on political stability lowers the inflation rate, as Table 3 indicates the interaction term ($pc_{it} * stab_{it}$) which has a positive sign and is statistically significant. Institutional environment plays an important role in maintaining price stability. Hence, due to the relatively strong institutional structure and strong governance of upper- middle-Income countries, political competition with political stability helps to reduce inflation rates (Edwards & Magendzo, [2006](#)).

Moreover, the estimate of empirical models incorporates a large number of control variables that represent the effects of GDP per capita growth (g_{it}), age dependency ($agedep_{it}$), unemployment ($unemp_{it}$), urbanization growth ($urbn_{it}$), and trade (top_{it}) on inflation (Fenira, [2014](#); Tripathi, [2021](#); Vlandas, [2016](#)). Even if their results are not very pertinent to the investigation, their inclusion is necessary to precisely estimate the effects of the factors that are relevant variables. The removal of particular control variables may result in an omitted variable bias, whereby the indicators that are incorporated in the investigation—including the variables of interest—may have detected the impact of the omitted variables on inflation. This leads towards an overestimation or underestimation of the influence of the main variables. On the basis of the previously mentioned justification, every group of control variable across all models is incorporated in the all description of model.

Regarding control variables, economic growth (g_{it}) is included because it is believed that it has an important role in influencing the inflation rate.

GDP per capita growth negatively and significantly affects the inflation rate in developing countries. This finding is consistent with those of Fischer (1993) and Ghosh and Philips (1998). According to Fischer (1993), economic expansion frequently draws in foreign investment, which strengthens the national currency and lowers import prices, easing inflationary pressures. The age dependency variable ($agedep_{it}$), indicates a positive and significant effect on inflation in aggregate as well as disaggregate sample of developing countries. Lindh and Malmberg (1999) provided empirical data demonstrating that demographic transitions, particularly an aging population, are connected to inflationary pressures, since they alter both demand patterns as well as government expenditure.

Unemployment ($unemp_{it}$) is included as a control variable to account for its well-documented impact on inflation. Unemployment has an impact on inflation since it changes consumer demand and wages. The results indicate that unemployment lowers the inflation rate. This result aligns with the findings by Phillips (1958), Blanchard and Galí (2010), and Ball and Mankiw (2002).

The study added urbanization growth and trade openness as control variables since they have significant but opposite effects on inflation. Urbanization expansion ($urbn_{it}$) often raises prices because rising urban demand for housing, facilities, and services frequently outstrips supply, leading inflation higher. Cohen (2006) argues that growing urbanization, particularly in developing nations, causes demand-side pressures and infrastructural issues that lead to increased prices. Trade openness (top_{it}), on the other hand, often contributes to decreasing inflation by increasing competition, lowering product costs, and encouraging economic efficiency. Romer (1993) demonstrates that nations that are better integrated into global commerce have lowered inflationary pressures. This is because increased competition and availability of cheaper imports stabilize domestic prices.

Table 2

The Effect of Political Competition and Political Institutions on Inflation Rate for Aggregate Panel of Countries

Variables	Model 1 (GMM)	Model 2 (GMM)	Model 3 (GMM)	Model 4 (GMM)	Model 5 (GMM)	Model 6 (GMM)
$inf_{it} - 1$	-0.064*** (0.017)	-0.085*** (0.021)	-0.071** (0.033)	-0.063 (0.106)	-0.076*** (0.019)	-0.543*** (0.104)
$grow_{it}$	-0.221*** (0.076)	-0.238** (0.084)	-0.338** (0.381)	-3.097 (0.241)	-0.286** (0.128)	-0.360 (0.306)

Variables	Model 1 (GMM)	Model 2 (GMM)	Model 3 (GMM)	Model 4 (GMM)	Model 5 (GMM)	Model 6 (GMM)
dep _{it}	-0.265*** (0.062)	-0.346*** (0.078)	-0.085 (0.035)	-0.157* (0.076)	-0.113*** (0.021)	-0.096** (0.039)
unem _{it}	-0.463*** (0.068)	-0.090 (0.081)	-0.114 (0.089)	-0.695*** (0.186)	-0.303*** (0.081)	-0.278*** (0.091)
urbn _{it}	2.187** (0.241)	3.571*** (0.364)	4.811*** (0.522)	6.060*** (1.446)	1.094*** (0.257)	2.306* (0.611)
top _{it}	-0.013** (0.004)	-0.027** (0.006)	-0.149*** (0.029)	-0.192*** (0.061)	-0.014** (0.026)	-0.017** (0.098)
pc _{it}	-0.018* (0.073)	-2.146*** (0.586)	-4.296** (0.478)	-4.123** (2.823)	-0.307* (0.299)	-1.451** (0.573)
sys _{it}	-----	-2.146*** (0.586)	0.372** (0.355)	-12.135 (0.267)	-----	-----
stab _{it}	-----	-----	-----	-----	-0.064*** (0.015)	-0.467*** (0.064)
(pc _{it} * sys _{it})	-----	-----	-----	2.645*** (0.245)	-----	-----
(pc _{it} * stab _{it})	-----	-----	-----	-----	-----	0.059*** (0.008)
regm _{it}	-----	-----	-3.189* (2.530)	-4.201* (10.052)	-3.941** (1.410)	-4.172** (3.126)
const.	24.115*** (3.030)	26.165*** (3.654)	70.127*** (4.515)	30.440*** (16.809)	27.320*** (2.160)	30.951*** (1.604)
Observation	1,063	1,062	1,062	1,062	1,063	1,063
No of years	18	18	18	18	18	18
No of cross sections	57	57	57	57	57	57
No of Instruments	33	36	25	22	34	29
AR (2) Test (p-value)	0.252	0.146	0.260	0.269	0.234	0.360
Hansen Test (p-value)	0.213	0.141	0.150	0.274	0.242	0.233

Note. Standard errors are given in parentheses; ***, **, and * show the significance levels at 1%, 5%, and 10%, respectively.

Table 3

The Effect of Political Competition and Political Institutions on Inflation Rate for Lower and Low Middle-Income Countries

Variables	Model 1 (GMM)	Model 2 (GMM)	Model 3 (GMM)	Model 4 (GMM)	Model 5 (GMM)	Model 6 (GMM)
inf _{it} - 1	-0.050* (0.028)	-0.077* (0.039)	-0.174*** (0.039)	-0.225*** (0.036)	0.023** (0.028)	0.017** (0.084)

Variables	Model 1 (GMM)	Model 2 (GMM)	Model 3 (GMM)	Model 4 (GMM)	Model 5 (GMM)	Model 6 (GMM)
grow _{it}	-1.048*** (0.322)	-1.271** (0.520)	-2.415*** (0.618)	-0.431** (0.185)	-0.384* (0.207)	-3.031*** (0.678)
dep _{it}	0.239*** (0.041)	0.264*** (0.050)	0.328*** (0.077)	0.174*** (0.042)	0.191*** (0.022)	0.292*** (0.074)
unem _{it}	-0.197** (0.084)	-0.264* (0.129)	-0.508*** (0.097)	-0.592** (0.216)	-0.156 (0.118)	-1.154*** (0.399)
urbn _{it}	2.123* (0.613)	2.372* (0.608)	0.909 (0.900)	1.060*** (0.278)	1.093* (0.582)	2.657** (1.216)
top _{it}	-0.037** (0.016)	-0.020* (0.011)	-0.091*** (0.017)	-0.029* (0.015)	-0.022 (0.078)	-0.130*** (0.042)
pc _{it}	-0.305* (0.154)	-----	-0.243*** (0.067)	0.354*** (0.294)	-0.526* (0.268)	-6.911*** (1.172)
sys _{it}	-----	-0.092** (0.278)	-0.429** (0.021)	0.453** (0.322)	-----	-----
stab _{it}	-----	-----	-----	-----	-0.157*** (0.027)	-1.408*** (0.220)
(pc _{it} * sys _{it})	-----	-----	-----	(1.318) 0.092**	-----	-----
(pc _{it} * stab _{it})	-----	-----	-----	-----	-----	0.138*** (0.031)
regm _{it}	-----	-----	2.391** (0.221)	-8.654*** (0.411)	3.720** (1.584)	14.634* (7.208)
const.	29.242*** (4.160)	28.949*** (4.968)	47.363*** (5.460)	3.734 (3.243)	20.598*** (1.913)	54.811*** (9.475)
Observation	645	644	643	676	645	645
No of years	18	18	18	18	18	18
No of cross sections	35	35	35	35	35	35
No of Instruments	22	23	18	26	16	21
AR(2) Test (p-value)	0.321	0.141	0.338	0.290	0.397	0.246
Hansen Test (p-value)	0.291	0.121	0.205	0.142	0.236	0.284

Note. Standard errors are given in parentheses; ***, ** and * show significance levels at 1%, 5%, and 10% respectively.

Table 4

The Effect of Political Competition and Political Institutions on Inflation Rate for Upper Middle-Income Countries

Variables	Model 1 (GMM)	Model 2 (GMM)	Model 3 (GMM)	Model 4 (GMM)	Model 5 (GMM)	Model 6 (GMM)
$\text{inf}_{it} - 1$	-0.110*** (0.024)	0.243*** (0.028)	-0.143*** (0.019)	-0.137*** (0.044)	-0.126*** (0.031)	-0.015 (0.070)
grow_{it}	-0.217*** (0.055)	-0.181* (0.087)	-0.382*** (0.127)	-1.607*** (0.246)	-0.628*** (0.181)	-0.943* (0.452)
dep_{it}	0.050** (0.033)	0.058* (0.035)	0.028*** (0.023)	0.202*** (0.035)	0.331*** (0.048)	0.727*** (0.158)
unem_{it}	-0.463*** (0.068)	-0.090 (0.081)	-0.114 (0.089)	-0.695*** (0.186)	-0.172 (0.277)	-1.163** (0.492)
urbn_{it}	1.906*** (0.292)	0.540*** (0.187)	2.327*** (0.236)	2.102* (0.545)	4.734*** (0.651)	10.682*** (1.318)
top_{it}	-0.048*** (0.014)	-0.042*** (0.012)	-0.013* (0.007)	-0.035* (0.019)	-0.064*** (0.015)	-0.153*** (0.017)
pc_{it}	-1.277*** (0.189)	-----	0.763* (0.384)	-0.181** (0.073)	-1.401* (0.700)	-4.998** (1.824)
sys_{it}	-----	-1.524*** (0.067)	-2.570*** (0.265)	-3.840 0.017	-----	-----
stab_{it}	-----	-----	-----	-----	0.084*** (0.025)	0.327*** (0.170)
$(\text{pc}_{it} * \text{sys}_{it})$	-----	-----	-----	1.034*** (0.354)	-----	-----
$(\text{pc}_{it} * \text{stab}_{it})$	-----	-----	-----	-----	-----	-0.022** (0.013)
regm_{it}	-----	-----	- 12.883*** (1.964)	-11.53*** (6.122)	-16.799** (6.076)	-8.823 (14.174)
const.	24.260*** (1.802)	2.593 (2.443)	8.821*** (1.726)	23.016*** (5.171)	26.463*** (4.730)	48.868*** (9.519)
Observation	418	418	418	418	418	418
No of years	18	18	18	18	18	18
No of cross sections	22	22	22	22	22	22
No of Instruments	16	17	12	10	15	13
AR (2) Test (<i>p</i> -value)	0.209	0.246	0.664	0.126	0.265	0.178

Variables	Model 1 (GMM)	Model 2 (GMM)	Model 3 (GMM)	Model 4 (GMM)	Model 5 (GMM)	Model 6 (GMM)
Hansen Test (<i>p</i> -value)	0.177	0.162	0.226	0.134	0.125	0.214

Note. Standard errors are given in parentheses; ***, **and * shows significance levels at 1%, 5%, and 10% respectively.

Marginal Impact of Political Competition on Inflation in Different Political Systems

We estimate the marginal effects of political competition on inflation across various political systems. We take partial derivatives (equation 2) to assess the marginal influence of political competition on inflation across various values of the political system.³ The outcomes of the conditional analysis model offered in Table 5 indicate that political competition, along with the parliamentary form of government, increases inflation rate in aggregate as well as disaggregates the sample of developing countries. So, the political systems serve a moderator role in the link between political competition and inflation.

Table 5

Marginal Impact of Political Competition on Inflation in Different Political Systems

Variable	Aggregate Panel of Developing Countries	Lower and Low Middle-Income Countries	Upper Middle- Income Countries
0	-4.123** (0.120)	0.354* (0.307)	-0.181*** (0.225)
1	-1.478** (0.150)	1.672*** (0.109)	0.853* (0.189)
2	1.167*** (0.235)	2.99** (0.154)	1.887** (0.320)

Note. $\frac{\partial \text{INF}_{it}}{\partial pc_{it}} = \beta_1 + \beta_3 \times \text{sys}_{it}$, evaluated at various percentiles of the political system. Where ***, ** and * show significance levels at 1%, 5%, and 10%, respectively. Standard errors in parentheses.

³Model 4 undergoes conditional analysis, which takes all factors into account.

Marginal Impact of Political Competition on Inflation with Political Stability

The study estimated conditional analysis (as shown in Table 6) in order to assess the conditional influence of political competition on inflation at different percentiles (25th, 50th, and 75th) of the political stability variable. Partial derivatives of equation (3) were taken to assess the marginal effect of political competition on inflation at different percentiles of the political stability variable.⁴ Political competition, along with political stability, has a positive influence on inflation, giving conditional effects outcomes for the complete sample and low- to middle-income countries. When considering the upper-middle-income countries, the coefficient of conditional analysis of political competition on inflation indicates a negative and significant effect and the size of the coefficient decreases over higher levels of percentiles.

Table 6

Marginal Effect of Political Competition on Inflation with Political Stability

Percentiles of Stability	Aggregate Panel of Developing Countries	Lower and Low Middle-Income Countries	Upper Middle-Income Countries
25th (low)	1.156*** (0.554)	6.222*** (1.089)	-0.510*** (1.787)
50th (Medium)	0.744* (0.532)	5.258*** (0.034)	-5.264*** (0.438)
75th (High)	0.096 * (0.509)	3.743*** (0.260)	-5.508*** (0.668)

Note. $\frac{\partial INF_{it}}{\partial pc_{it}} = \beta_1 + \beta_3 \times stab_{it}$, evaluated at various percentiles of the political stability. Where ***, ** and * show significance levels at 1%, 5%, and 10%, respectively. Standard errors in parentheses.

Conclusion

The current study examines the link between political competition and inflation, taking into consideration the moderating role of political institutions. The research covered 57 developing nations from 2000 to 2018. To reduce the likelihood of internal heterogeneity, the sample is separated

⁴Model 6 undergoes conditional analysis, which takes all factors into account.

into two income categories: low- and upper-middle-income nations. The study's findings suggest that increased political competition leads towards lower inflation. This demonstrates that political competition begins with a statistically significant negative sign in every specification and collection of sample nations. Furthermore, the empirical results shed light on the importance of political institutions in the link between political competition and inflation rate. Political competition conditional on political systems causes greater inflation rates in emerging nations. This finding holds true even after the sample is disaggregated, revealing the significant impact of prevailing political systems on inflationary trends.

The conditional influence of political competition on inflation, which is contingent on political stability, produces complicated results. In the case of low- and lower-middle-income countries, rising political competition tends to drive up inflation. In contrast, in upper-middle-income nations, increased political competition, along with political stability, has a moderating impact, lowering inflation. These differing results imply that the economic repercussions of political competition are context-dependent, influenced by the institutional and income-level environments. The study suggests that strong institutional structure and balanced political competition are associated with better inflation performance.

Our findings indicate that political competition, political system type, and political stability all have an impact on inflation outcomes in emerging nations. The current study recommends that to reduce inflationary pressures, governments should promote political stability, implement clear electoral and fiscal rules, strengthen institutions and improve central bank independence. In increasingly unequal situations, targeted social measures and progressive taxes may help lessen the need for inflationary financing. These approaches enable developing countries to benefit from political responsibility while preserving price stability.

Conflict of Interest

The authors of the manuscript have no financial or non-financial conflict of interest in the subject matter or materials discussed in this manuscript.

Data Availability Statement

The data associated with this study will be provided by the corresponding author upon request.

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