Financial Dimensions of Inflationary Pressure in Developing Countries: An In-depth Analysis of Policy Mix

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Abstract

This study explores the relationship between inflationary pressure and policy mix in developing countries from 1995 to 2022. Money supply, unemployment rate, regulatory policies, currency rate, remittances, and amount of foreign debt are explanatory factors, whereas inflationary pressure is the dependent variable. Panel least squares and fixed effect models are utilized to assess the influence of these factors on inflation. The study's findings shed light on the complicated links between financial factors and inflationary pressures in developing nations. The study demonstrates that in developing countries, the money supply negatively and considerably influences inflation. The study found that unemployment had a favorable but insignificant effect on inflation pressures in emerging nations. Furthermore, the research demonstrates that regulatory measures negatively and considerably influence inflationary pressures. The exchange rate has been proven to positively and significantly impact inflationary pressures in emerging nations, highlighting the necessity of prudent exchange rate management in mitigating the inflationary implications of currency decline. Furthermore, remittances negatively and considerably influence inflationary pressures, implying that increasing financial inclusion and investment possibilities for remittance-receiving families might help stabilize inflation in developing countries. Finally, the study emphasizes that the quantity of foreign debt in emerging nations positively and considerably influences inflationary pressures. According to the study, careful monitoring and control of the money supply, addressing unemployment through labor market reforms and investments, implementing effective regulatory restrictions, prudent exchange rate management, promoting financial inclusion for remittance recipients, and pursuing sustainable debt levels are all important.

Keywords: Money Supply, Unemployment Rate, Regulatory Policies, Currency Rate, Debt.

Introduction

Developing countries face a significant macroeconomic challenge in maintaining price stability (Greenidge & DaCosta, 2009). The continuous rise in prices and the subsequent loss of absolute value of money have raised concerns, impacting the cost of living, investment opportunities, and overall economic and social well-being. Inflation, characterized by a sustained and significant increase in the general price level, poses complex challenges for these economies (Sriyana, 2022). It is essential to differentiate between temporary price fluctuations and proper inflation, which requires consistency and broad impacts across goods and services (Ellahi, 2017; Ngoo et al., 2021). Inflationary economies also grapple with the role of their national currency, as maintaining it as a reliable medium of exchange and store of value becomes increasingly challenging (Ndidi, 2013). Striking the right balance between economic growth and price stability is a critical aspect for policymakers. While moderate inflation levels have been argued

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to be beneficial for job creation (Lewis & Mizen, 2000; Sisay, 2022), unexpected and uncontrollable inflation presents macroeconomic problems.

Since the 1990s, many nations have undertaken significant macroeconomic reforms to limit policy discretion. Central bank independence is recognized for achieving lower and more stable inflation rates in advanced and emerging countries (Batini & Laxton, 2007; Gonçalves & Salles, 2008; Lin & Ye, 2009; Charles et al., 2022). Concurrently, governments have adopted fiscal policy principles to address persistent excessive deficits and curb procyclical measures. Well-designed budgetary rules have been associated with enhanced budgetary discipline and reduced procyclicality, as evidenced by numerous studies (Alesina & Perotti, 1995; Alesina et al., 1999; Debrun et al., 2008b; Combes et al., 2014; Tapsoba, 2012; Guerguil et al., 2017; Charles et al., 2022). Developing countries can draw valuable lessons from 1990's experiences to achieve price stability and sustainable economic growth. Implementing central bank independence can strengthen the monetary policy framework, enabling the central bank to focus on its primary objective of maintaining price stability. This can be achieved through a clear mandate and institutional autonomy.

Moreover, fostering a culture of transparency and accountability within the central bank can enhance the credibility of its policies. Similarly, adopting well-designed fiscal rules can provide a crucial anchor for budgetary policy, preventing excessive deficits and wasteful spending during economic upswings. Fiscal rules can take various forms, i.e., expenditure ceilings, debt limits, or balanced budget requirements, and their effectiveness relies on robust enforcement mechanisms (Von & Harden, 1995; Pama et al., 2022). Ensuring transparency in the budgeting process and fostering public awareness of fiscal targets can also bolster the effectiveness of fiscal rules.

The financial sector is a crucial funding source for productive economic activities in every economy. Financial intermediation is vital in facilitating monetary transactions by acting as an intermediary between savers and borrowers. Savers deposit their money in financial institutions, which lend to borrowers, such as businesses, governments, or individuals, who seek to invest in various ventures. Channeling funds from savers to borrowers fosters economic growth by promoting capital accumulation and technological advancements. The financial sector contributes to economic growth by encouraging a higher saving rate, offering valuable investment information, and enhancing capital allocation efficiency. Extensive research has been conducted on the relationship between the expansion of the financial sector and the inflation rate in economies. Studies have shown that the growth and development of the financial sector can have implications for inflation dynamics (Bose & Cothren, 1996, 1997; Saint-Paul, 1992; Pama et al., 2022). As the financial sector expands, the availability of credit and funds for investment increases, potentially stimulating economic activity and demand. This increased demand can lead to upward pressure on prices and contribute to inflationary pressures in the economy. Moreover, the efficient allocation of financial resources by the financial sector can influence investment decisions and contribute to overall aggregate demand and supply changes. These aggregate demand and supply changes can also impact the price level and inflation rates.

Empirical studies examining the influence of macroeconomic frameworks on policy outcomes have primarily focused on analyzing monetary and fiscal policy separately, overlooking their intricate interactions. However, theoretical literature emphasizes the significant linkages between optimal monetary and fiscal policies, especially when subject to binding constraints like the lower bound on nominal interest rates or currency union membership (Leeper & Leith, 2016; Alharthi, 2019). Models exploring macroeconomic institutions reveal that enhancing incentives for monetary and fiscal officials through institutional changes can impact their strategic interaction, potentially reducing the effectiveness of isolated policy improvements (Beetsma & Bovenberg, 1998; Dixit & Lambertini, 2003). In light of these insights, this study aims to investigate the policy mix and its financial dimensions as explanatory factors for inflationary pressure in developing countries. By considering monetary and fiscal policies, this research will shed light on how the combination of these policies influences inflation outcomes. By examining

the financial dimension of the policy mix, the study seeks to enhance our understanding of the mechanisms through which the financial sector can affect inflation rates in developing countries.

Literature Review

Price stability is a crucial indicator of an economy's overall health and stability. The continuous rise in the general price level, known as inflation, directly affects the public's and investors' welfare (Voukelatou et al., 2021; Ngoo et al., 2021). At the micro level, inflation raises the cost of living, healthcare, and education expenses while eroding people's purchasing power (Scavette, 2017; Bronchetti et al., 2019). Particularly vulnerable are fixed-income, middle, and lower-middle-income populations, who bear the brunt of inflationary pressure. On a macro level, fluctuations in the general price level influence nominal interest rates and interest payments for financial institutions and banks, impacting the confidence of both domestic and foreign investors. Given its significant implications for the general public and investors, inflation and its determinants have become a topic of intense discussion among policymakers. So, economies worldwide are strictly adopting inflation-targeting policies as their prime objective to maintain stable price levels (Gathogo & Sohn, 2015). Inflation is considered "a double-edged sword"; it has been empirically tested that undisciplined inflation leads to hyperinflation, whereas over-restricted inflation leads to economic deflation.

Studies have investigated the relationship between trade openness and inflation in various contexts. Terra (1998) focused on 20 developing nations categorized by their level of indebtedness, revealing a strong negative link between trade openness and inflation in severely indebted countries during the debt crisis period. Ashra (2002) explored 15 Asian G4 and G7 nations, finding a substantial negative influence of trade openness on inflation. Brumm (2006) also examined central bank independence and inflation, revealing a significant negative association in selected developing countries. Neyapti (2004) explored the relationship between revenue decentralization, central bank independence, and government expenditure, indicating a negative impact of revenue decentralization on inflation.

Studies by Mukhtar (2010) and Thushyanthan (2011) delve into the influence of trade openness, fiscal policies, and democracy on inflation in Pakistan and OECD countries. Additional studies by Aurangzeb and Haq (2012) and Arif and Ali (2012) analyze the impact of GDP, exchange rates, and government policies on inflation in Pakistan and Nigeria. Furthermore, studies by Joiya and Shahzad (2013) investigate the role of trade openness, government spending, and money supply on inflation in Pakistan.

Mehrara and Sajoudi (2015) investigate Iran's economic factors, revealing that the pace of money growth, economic growth rate, liquidity-to-GDP ratio, and energy costs have substantial and beneficial influences on inflation. Alexander et al. (2015) explore Nigeria's total imports, money supply, exchange rate, and inflation, finding a long-run equilibrium link between inflation and these factors. Undji and Kaulihowa (2015) study Namibia, identifying imports, government spending, money supply, and GDP as primary drivers of inflation. Venkadasalam (2015) explores Malaysia, finding that broad money, exports, GDP, and household final consumption expenditure are positively associated with the consumer price index. Lim (2015) analyzes 28 nations, differentiating between high and low-inflation environments and identifying factors influencing inflation in different contexts.

Sherri et al. (2018) focus on Malaysia, revealing that the tourism sector significantly impacts inflation in the long and short run. Franses and Janssens (2018) explore corruption and inflation in 47 African nations, discovering corruption's considerable and negative influence on inflation. Bolukbas and Mustafa (2018) studied inflation and government spending in Turkey, finding varying causal links between the two over different periods. Dikeogu (2018) examines the influence of public capital, recurring spending, money supply, and currency rate on Nigerian inflation, proposing effective expenditure channeling for infrastructure development. Milenkovi et al. (2020) investigate the impact of GDP, unemployment, real interest rate, savings,

government expenditure, and value-added tax on inflation in Balkan countries, identifying significant influences of GDP, unemployment, and value-added tax. Alharthi (2019) explores the link between GDP, corruption, and inflation in Gulf Cooperation Council (GCC) nations, finding a negative influence of GDP and a positive impact of crime on inflation. Danlami et al. (2019) analyze the link between the Sierra Leone currency rate and inflation, finding short-term inflationary effects of exchange rate shocks. Tolasa et al. (2022) analyze Ethiopia, identifying the long-term impact of real GDP, lending interest rates, and the short-term influence of broad money supply, population growth, savings, and imports on inflation. Iqbal et al. (2022) analyze Pakistan, emphasizing the significance of exchange rates, GDP, and money supply.

Over time, there is an extensive amount of literature (Kemmerer, 1942; Friedman, 1963; Lindberg & Maier, 1985; Lahiri & Ratnasiri, 2010; Lim, 2015; Mandala, 2020) that examines the different consequences and causes of inflation. There are four main types of inflation, i.e., creeping inflation, walking inflation, running inflation, and hyper-inflation or jumping inflation. Numerous studies considered inflation a monetary phenomenon (Cogley & Sargent, 2002; Totonchi, 2011; Mandala, 2020), and the rising inflation worldwide has attracted policymakers' attention. However, hardly any study examines the financial dimensions of inflation in developing countries. This study will be a healthy contribution to the respective literature.

The Model

One of the significant challenges that developing nations currently confront is maintaining price stability. Every economy is always concerned about high prices because they increase living expenses, discourage investment, and have a negative influence on both the economy and society as a whole. This rising price phenomenon is complex and multi-dimensional, termed inflation in literature, and characterized by a continuous price rise. Inflation is defined as a consistent, noticeable increase in prices overall. Not all price increases are referred to as inflation. For a rise in the general price level to be regarded as inflation, it must be continuous, long-lasting, maintained, affect practically all commodities, and not be seasonal (Ellahi, 2017). It is challenging for the national currency to serve as both a medium of exchange and a store of value in the presence of inflationary pressure; there is an inverse impact on income distribution, output, and employment in addition to a decline in the country's currency's value and an increase in the exchange rate when compared to other currencies (Ndidi, 2013). Numerous studies have claimed that unexpected and uncontrollable inflation is one of the main macroeconomic issues, although moderate inflation levels positively affect job creation (Lewis & Mizen, 2000).

Following the theoretical viewpoint, previous literature has presented two main theoretical justifications for the causes of inflation. First, the "Demand Pull Argument" claims that high overall demand for goods and services in both the goods and the factor markets causes inflation. According to this theory, the rise in prices results from increased government expenditure, increased money supply, and price hikes in an international price raise the domestic price.

Second, the "Cost-Push Argument" depicts that inflation rises due to the disastrous decline in aggregate supply. Because of this, there is low actual output and employment over the long and short run. Different studies claimed that despite disagreements between these two hypotheses, the two best methods to measure the causes of inflation still exist. Classical economists mention that a rising money supply increases aggregate demand, leading prices to rise steadily. Based on existing studies (Geske & Roll, 1983; Floros, 2004; Yeh & Chi, 2009; Den, 2000; Crosby, 2001; Boudoukh & Richardson, 1993; Graham, 1996; Choudhry, 2001; Ali et al., 2015; Ali, 2015; Ali Rehman, 2015; Arshad & Ali, 2016; Ali & Bibi, 2017; Ali & Audi, 2018; Ali, 2018; Ali, 2022) the model of this study become as:

$$INF_{it}=F(MS_{it}, UN_{it}, RP_{it}, REX_{it}, REM_{it}, DE_{it}) \quad (1)$$

INF= Inflationary Pressure

MS= Money Supply

UN= Unemployment Rate
RP= Regulatory Policies
REX= Exchange Rate
REM= Amount of remittance
DE= Amount of Foreign Debt
i= set of selected countries (113)
t= selected time-period (1995-2022)

To examine the responsiveness of the dependent variable for each independent variable, the econometric model can be written as:

$$INF_{it} = \alpha + \beta_1 MS_{it} + \beta_2 UN_{it} + \beta_3 RP_{it} + \beta_4 REX_{it} + \beta_5 REM_{it} + \beta_6 DE_{it} + U_{it} \quad (2)$$

α = constant/intercept
β_i = slope coefficients
U = error term

Table 1: Measurements of Variables

Term	Definition	Measurement
INF	Inflationary Pressure	Inflation as measured by the consumer price index reflects the annual percentage change in the cost to the average consumer of acquiring a basket of goods and services that may be fixed or changed at specified intervals, such as yearly. The Laspeyres formula is generally used.
MS	Money Supply	Broad money (IFS line 35L.ZK) is the sum of currency outside banks; demand deposits other than those of the central government; the time, savings, and foreign currency deposits of resident sectors other than the central government; bank and traveler's checks; and other securities such as certificates of deposit and commercial paper.
UN	Unemployment Rate	Unemployment refers to the share of the labor force that is without work but available for and seeking employment. Definitions of labor force and unemployment differ by country.
RP	Regulatory Policies	Regulatory Quality captures perceptions of the ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development. Estimate gives the country's score on the aggregate indicator, in units of standard normal distribution, i.e., ranging from approximately -2.5 to 2.5.
REX	Exchange Rate	The real effective exchange rate is the nominal effective exchange rate (a measure of the value of a currency against a weighted average of several foreign currencies) divided by a price deflator or index of costs. Real effective exchange rate index (2010 = 100)
REM	Amount of Remittances	Personal remittances comprise personal transfers and compensation of employees. Personal transfers consist of all current transfers in cash or in kind made or received by resident households to or from nonresident households. Personal transfers thus include all current transfers between resident and nonresident individuals. Compensation of employees refers to the income of border, seasonal, and other short-term workers who are employed in an economy where they are not residents and of residents employed by nonresident entities.

DE	Amount of Foreign Debt	Total debt service is the sum of principal repayments and interest paid in currency, goods, or services on long-term debt, interest paid on short-term debt, and repayments (repurchases and charges) to the IMF.

The data of selected variables have been taken from World Development Indicators, a database maintained by the World Bank. The developing nations included in this study were chosen for various reasonable reasons: Inflation is frequently a more significant issue in poor countries than in industrialized economies. Developing nations tend to have higher and more variable inflation rates because of structural restrictions, supply-side concerns, and sensitivity to external shocks. Therefore, understanding the causes and consequences of inflation in these economies is critical for successful policymaking. Understanding inflationary pressures in emerging nations can have far-reaching consequences for macroeconomic theory and policy. While certain variables influencing inflation may be exclusive to emerging nations, many links may be applied or relevant to other situations, including prosperous economies. As a result, research undertaken in developing nations can help better understanding of inflation dynamics in general.

Results and Discussion

The descriptive statistics provide intertemporal properties of the data series, e.g., Kurtosis, Skewness, Standard deviation, minimum, maximum, median, and mean values of the variables. The estimated results of the descriptive statistics have been given in Table 2. The findings indicate that all selected variables have reasonable properties for further empirical analysis.

Table 2: Descriptive Statistics

Variables	INF	MS	UN	RP	REX	REM	DE
Mean	10.78445	42.78219	8.837852	-0.335413	101.8373	5.071176	4.727848
Median	4.977916	36.45026	6.555000	-0.314938	100.0000	2.579429	3.614249
Maximum	1058.374	211.8916	38.80000	1.260209	511.0492	108.4032	73.28264
Minimum	-13.87678	0.009926	0.400000	-2.126586	46.24184	0.000000	0.061478
Std. Dev.	45.27870	29.74112	6.674576	0.541010	25.68752	8.275870	4.566717
Skewness	15.20962	2.013498	1.453537	-0.125984	5.669573	5.544650	4.543393
Kurtosis	289.7368	9.865734	5.327891	2.979741	71.67282	51.90802	51.42089
Jarque-Bera	4115595.	3136.073	686.5729	3.162979	239804.3	124490.8	120144.0
Sum	12811.92	50825.24	10499.37	-398.4706	120982.7	6024.557	5616.684
SumSq.Dev.	2433541.	1049942.	52880.81	347.4258	783240.7	81297.65	24754.77

The correlation matrix is shown in Table 3, the correlation matrix highlights the real exchange rate, remittances, unemployment, regulatory policies, foreign debt, as well as the money supply. There is no higher correlation among the explanatory variables, which raises the problem of multicollinearity among the chosen independent variables.

Table 3: Correlation Matrix

Variables	INF	MS	UN	RP	REX	REM	DE	INF
INF	1.000000							
MS	-0.13052	1.000000						
UN	-0.05098	0.105594	1.000000					
RP	0.144878	0.315585	0.383932	1.000000				
REX	0.284789	-0.06611	-0.09767	-0.24188	1.000000			
REM	-0.05653	-0.01500	0.098867	0.084109	0.046832	1.000000		
DE	-0.01220	0.051603	0.194640	0.262993	-0.15841	0.040113	1.000000	

To decide whether the panel data model should be estimated by using a fixed effects method or a random effects approach, the Hausman test is applied, the results are shown in Table 4. The test summary states that the p-value is 0.0000 and that the Chi-Square statistic is 31.544527 with 6 degrees of freedom (d.f.). Thus, the fixed effects model should be used to take into account the relationship between the independent variables and the unobserved heterogeneity, resulting in a more precise estimate and inference.

Table 4: Outcomes of the Hausman Test

Correlated Random Effects - Hausman Test			
Equation: Untitled			
Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Period random	31.544527	6	0.0000

This study has applied panel least squares and fixed effect models to find the impact of explanatory variables on dependent variables. The results of the panel least square and fixed effect model have been given in Table 4; the findings indicate that money supply has a small but negative effect on the inflation rate, with a 1 percent increase in money supply reducing inflationary pressure by (-0.150037) percent during the chosen period in developing nations. The findings of the fixed effect model indicate that in developing nations, the money supply and inflationary pressure are inversely related. The findings indicate that a 1 percent increase in money supply results in a -0.075670 percent drop in inflationary pressure. This result contradicts the generally held belief that adjustments to the money supply may affect the general level of prices in an economy (Mankiw, 2014). The Quantity Theory of Money states that a rise in the money supply causes an increase in aggregate demand, which may result in a rise in the cost of goods and services.

On the other hand, a decline in the money supply may result in a decline in both aggregate demand and prices. The monetarist theory of inflation refers to this phenomenon (Friedman, 1970). The fact that the money supply has a negative coefficient suggests that managing inflationary pressures in an economy can depend much on the central bank's activities in regulating the money supply. Central banks modify the money supply through open market operations, reserve requirements, or other monetary policy instruments to meet their inflation objectives. Furthermore, other variables like interest rates and money velocity may impact the negative link between the money supply and the inflation rate. When interest rates are low, people may be more likely to borrow and spend money, increasing the flow of money and inflation (Bernanke, 2020). Furthermore, the money supply's negative coefficient suggests that regulating and controlling the money supply is a crucial component of monetary policy in reducing inflationary pressures in an economy. Central banks and policymakers must carefully evaluate how their choices affect the money supply to accomplish their inflation goals and preserve price stability.

According to the estimated results of the panel least squares and fixed effect model, inflationary pressure in developing nations is positively but insignificantly impacted by unemployment. This result is consistent with some earlier research that examined the connection between inflation and unemployment in developing nations. Studies on the dynamics of the Phillips curve, particularly in developing nations, have produced conflicting findings about the link between inflation and unemployment. For example, Maqbool et al.'s (2013) study of the Phillips curve in Pakistan revealed a slight positive correlation between inflation and unemployment. Similar findings have been found by Haider and Dutta (2018) in Bangladesh. The prevalence of structural variables and supply-side limitations in developing countries is one potential explanation for the calculated coefficient's insignificance. Developing nations may experience a less responsive link between unemployment and inflation due to high levels of informality, labor market rigidities, and restricted access to education and skill development (Kingdon et al., 2006).

Furthermore, many other variables outside unemployment frequently impact the inflationary pressures in developing countries. These nations' inflation patterns may also be significantly influenced by supply shocks and shifts in commodity prices (Dua & Gaur, 2010). When analyzing the connection between unemployment and inflation, it is crucial to consider the unique traits and difficulties experienced by developing nations. To successfully control inflationary pressures and advances toward inclusive economic growth, policymakers should implement a comprehensive strategy that tackles supply-side and demand-side challenges (Ha et al., 2019). The complexity of inflation dynamics in developing economies is shown by unemployment's positive but negligible influence on inflationary pressure in developing nations. According to the estimated results of the regression analysis, inflationary pressure is negatively and significantly impacted by regulatory policies. This result supports the idea that regulatory actions taken by governments and central banks may influence the dynamics of inflation in an economy. According to research on the link between regulatory policies and inflation, government interventions and regulatory frameworks are crucial in affecting price levels. For example, Copelovitch and Singer (2016) mention that banking rules affect inflation in industrialized economies, revealing that some regulatory policies can reduce inflationary pressures. According to the negative coefficient, a 1% rise in regulatory policies is connected to a significant reduction in inflationary pressure of about 4.77 %. The outcomes of fixed effects show that regulatory policies significantly and negatively affect inflationary pressure. According to the estimations, a 1% increase in regulatory policies reduces inflationary pressure by -4.773069%. This reveals that more rigid regulatory controls or restrictions on specific economic activity can lower overall inflationary pressure. The cost structure and supply chain dynamics might be impacted by regulatory laws, which could influence inflation. The laws about restricting price growth or limiting necessary commodities and services can directly impact inflation rates (Cody & Mills, 1991).

Further, regulatory rules may impact consumer spending, company investment, and output, all of which may impact inflation and total demand. The rules that make business operations unpredictable or burden them with high compliance costs may discourage investment and slow economic growth, impacting inflation (De Gregorio, 2012). It is crucial to consider the exact categories of regulatory policies that have potential interactions to impact inflationary pressure. Policymakers should carefully design and implement regulatory policies to achieve their inflation targets while considering any potential trade-offs and unintended consequences of such policies on economic growth and stability, according to the negative and significant impact of regulatory policies on inflationary pressure.

According to the estimated results of the regression analysis, the exchange rate has a positive and significant influence on the level of inflation in developing nations. This result is consistent with other research examining the connection between inflation and currency rates in developing nations. Sahuc and Smets' (2008) study on how changes in exchange rates affect inflation in developing economies reveals that exchange rate variations can significantly impact the dynamics of inflation. The positive coefficient indicates that a 1% increase in the exchange rate is linked to a 0.49 percent increase in inflationary pressure throughout the chosen period. The outcomes of the fixed effect model show that an increase in the exchange rate of 1% causes an increase in inflationary pressure of 0.435103%. This reveals that currency depreciation, in which the home currency weakens compared to other currencies, can cause higher inflation by increasing the cost of imported goods and services. Different factors impact how exchange rates affect inflation in developing nations. Changes in currency rates can lead to inflationary pressures differently depending on factors, e.g., import dependence, trade openness, and the proportion of imported inputs in the manufacturing process (Hausmann & Rigobon, 2003).

Furthermore, the central bank's reputation and inflation expectations are crucial factors in influencing how quickly changes in the currency rate are passed on to consumer prices. Businesses and people may alter their behavior if they anticipate more significant inflation due to exchange rate depreciation, which would have a more pronounced inflationary impact

(Obstfeld & Rogoff, 1995). Furthermore, changes in the exchange rate may affect inflation in both the short and long terms, and the pace and size of these impacts can differ among nations and historical periods. The necessity of keeping an eye on exchange rate changes and their possible effects on price stability is highlighted by the exchange rate's vivacious and significant impact on inflationary pressure in developing economies. To reduce the inflationary effects of exchange rate swings while fostering sustainable economic growth, policymakers in developing nations must consider exchange rate management and adopt the necessary monetary policy measures.

The number of remittances has a negative and significant influence on the inflationary pressure in developing nations, according to the estimated regression analysis results. This result is consistent with earlier studies examining the connection between remittances and inflation in developing nations. Remittance flows can affect the economic circumstances of recipient nations, according to studies on how they affect a range of macroeconomic indices, including inflation. According to Olubiyi (2014) remittances can have a dampening influence on inflationary pressures. The negative coefficient indicates that a 1 percent rise in remittances is linked to a 0.38 percent substantial drop in inflationary pressure in developing nations. The findings of the fixed effect model show that remittance amounts have a significant negative influence on inflationary pressure in developing nations. The results indicate that a 1% increase in remittances reduces inflationary pressure by -0.247688%. This reveals that remittances are frequently sent home by migrant workers, which might reduce inflation by boosting recipient households' purchasing power and decreasing their reliance on locally produced products and services that are prone to price changes. Remittances can also help recipient nations spend more and promote financial inclusion, which can result in higher productivity and possibly reduced production costs, both of which impact inflation. When analyzing the effect of remittances on inflation, it is essential to consider the distinctive qualities of the countries that receive remittances and their integration into the global financial system. Remittances can affect inflation depending on the economic structure, degree of development, and other macroeconomic factors. The negative and significant influence on inflationary pressure in developing nations shows the potential importance of remittances as a stabilizing element for developing economies. When creating economic policies, policymakers should consider the impacts of remittance flows on inflation dynamics. They should also work to maximize the benefits of remittances to advance sustainable development and price stability. According to the regression analysis findings, there is a positive and significant relationship between foreign debt and inflationary pressure in developing nations. This result aligns with studies examining the connection between foreign debt and inflation in developing nations. A more significant amount of foreign debt can cause inflationary pressures on an economy. The positive coefficient indicates that a 1 percent increase in foreign debt is linked to a significant rise in inflationary pressure in developing nations of almost 0.53 percent. The findings of the fixed effect model demonstrate that the level of foreign debt significantly affects inflationary pressure. The findings demonstrate that a 1% rise in foreign debt causes a 0.542569% increase in inflationary pressure. As a result of increased government expenditure, currency depreciation, or higher interest rates that can all boost inflationary pressures, it is implied that relying too much on foreign borrowing can result in higher inflation rates. Through its impact on currency rates, foreign debt may also affect inflation. The cost of repaying foreign debt can increase with a depreciation of the home currency, which can also increase inflation (Ottonello & Perze, 2019).

Furthermore, the sustainability of the quantity of foreign debt is critical in evaluating how it affects inflation. Foreign debt can cause capital flight, a currency crisis, and more significant inflation if it becomes unmanageable and undermines investor confidence (Reinhart & Rogoff, 2009). When analyzing the effect of foreign debt on inflation, it is crucial to consider its unique characteristics and conditions. The necessity of responsible debt management and fiscal policies is highlighted by the positive and significant influence of the quantity of foreign debt on inflationary pressure in developing nations. To guarantee price stability and general economic

stability, policymakers in developing nations should carefully evaluate the effects of foreign borrowing on inflation dynamics and consider sustainable debt levels.

Table 4: Estimated Outcomes

Dependent Variable: INF				
	Panel Least Square		Fixed Effect Model	
Variables	Coefficient	Std. Error	Coefficient	Std. Error
MS	-0.150037***	0.044292	-0.075670*	0.042390
UN	0.031791	0.204139	0.032382	0.190106
RP	-4.766342*	2.734635	-4.773069*	2.546812
REX	0.487656***	0.050460	0.435103***	0.049164
REM	-0.376340**	0.152266	-0.247688*	0.148877
DE	0.530733*	0.286472	0.542569**	0.268148
C	-34.93854***	6.257318	-34.85859***	5.986767

Conclusion

The estimated results provide valuable insights into the relationships between various financial variables and inflationary pressures in the context of developing economies. The first significant finding of this study is that money supply has a negative and significant impact on the inflation rate in developing countries. This result challenges the widely accepted Quantity Theory of Money, which posits that changes in the money supply can influence overall price levels. However, the negative coefficient for money supply suggests that central banks can play a crucial role in managing inflationary pressures by controlling and managing the money supply through monetary policy tools. The relationship between money supply and inflation may also be influenced by other factors, such as interest rates and the velocity of money, which warrants further research. Secondly, unemployment was found to have a positive but insignificant impact on inflation pressure in developing countries. Structural factors, supply-side constraints, and the presence of other macroeconomic factors like supply shocks influence the complex relationship between unemployment and inflation in these economies. The study also revealed that regulatory policies negatively and significantly impact inflationary pressure. Stricter regulatory measures or tighter controls on economic activities can reduce economic inflation. It is essential to design and implement regulatory measures to achieve inflation targets while considering potential trade-offs and unintended consequences on economic growth and stability.

Furthermore, the exchange rate positively and significantly impacts inflationary pressure in developing countries. Exchange rate fluctuations can influence import prices and overall inflation levels. Moreover, the study demonstrated that remittances negatively and significantly impact inflationary pressure. Remittances can stabilize inflation by increasing the purchasing power of recipient households and reducing their reliance on domestic goods subject to price fluctuations. The results highlight that the amount of foreign debt positively and significantly impacts inflationary pressure in developing countries. High foreign debt levels can exert inflationary pressures due to increased government spending, currency depreciation, and higher interest rates.

Policy Suggestions

Through the use of different monetary policy instruments, such as open market operations and reserve requirements, central banks must carefully monitor and control the money supply. Even though the study showed that the money supply negatively influences inflation, further research is needed to understand how it interacts explicitly with interest rates and money velocity. Policymakers must consider these elements to meet inflation goals and preserve price stability. The possible impact of unemployment on inflation should be addressed by policymakers using a multifaceted strategy. To do this, labor market reforms must be implemented, education and

skill development must be improved, and investment in high-potential industries must be encouraged. The link between unemployment and inflation in developing nations can be made more responsive by addressing structural issues and supply-side restrictions. Policymakers can impose more onerous regulatory restrictions and limitations on economic activity to lessen inflationary pressures. They should carefully plan and implement these measures to regulate inflation without impeding economic growth. It is important to weigh the advantages of regulation against any possible costs.

Policymakers should use sensible exchange rate management because of the enormous influence of currency rates on inflation. This entails keeping an eye on exchange rate movements and putting in place the proper measures to lessen the inflationary effects of currency depreciation. Flexible exchange rate regimes could make economies more resilient to outside shocks. Given that remittances have a stabilizing influence on inflation, authorities should encourage financial inclusion and investment possibilities for households receiving remittances. In developing nations, fostering a climate that encourages the effective use of remittances can promote long-term economic growth. Policymakers must evaluate the effects of foreign borrowing on inflation dynamics and pursue sustainable debt levels to minimize escalating inflationary pressures. Reducing reliance on foreign borrowing can be accomplished by diversifying one's financial resources and investing in high-return initiatives.

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