An Analysis of the Factors Behind High Inflation in Pakistan

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***Abstract*—The primary objective of this research paper is to examine the determinants of high inflation in Pakistan. Inflation holds significant importance as a crucial economic gauge that impacts various stakeholders such as individuals, businesses, and the overall economy. To accomplish this objective, a comprehensive dataset consisting of macroeconomic indicators and financial institution reports is utilized. Statistical analysis is applied to identify and analyze the key factors that contribute to the elevated inflation levels observed in Pakistan. The factors under consideration encompass aspects such as money supply, government spending, exchange rates, energy prices, natural disasters, pandemic, interest rates, and supply-side factors. Through this descriptive analysis, the intention is to offer valuable insights into the underlying causes of inflation in Pakistan, thereby enhancing the understanding of the country's economic dynamics.**

Keywords—Inflation, Pakistan, Money Supply, Government Spending, Exchange Rate, Energy Prices, Oil Prices, COVID-19, Floods, Supply-side Factors, Macroeconomic Indicators

I. INTRODUCTION

Inflation plays a pivotal role in the economy, impacting individuals, businesses, and overall economic stability. Pakistan's inflation rate has outpaced Sri Lanka's, making it the fastest-growing inflation rate in Asia. Pakistan has been grappling with rising prices and increased cost of living, driven by factors such as food inflation, energy costs, and currency depreciation. The country has witnessed a surge in consumer prices, affecting households' purchasing power and potentially impacting the overall economy [1]. This paper aims to provide a descriptive analysis of the factors behind high inflation in Pakistan, shedding light on the underlying causes of inflationary pressures. By examining a diverse range of factors, we aim to deepen our understanding of Pakistan's economic dynamics and offer valuable insights for policymakers to manage inflation effectively.

To conduct this analysis, we will utilize a comprehensive dataset consisting of macroeconomic indicators, and financial institution reports. These sources will provide us with a robust foundation to explore and analyze the factors contributing to high inflation. Employing statistical analysis, we will identify the key drivers of inflation in Pakistan. The factors under consideration include money supply, government spending, exchange rates, energy prices, natural disasters, pandemic, interest rates, and supply-side factors. Each of these factors has its unique potential to influence inflationary pressures, and by examining their relationships, we aim to gain a comprehensive understanding of the factors driving high inflation in Pakistan.

Through this descriptive analysis, our objective is to contribute to the existing knowledge on inflation in Pakistan and provide empirical evidence on the significant factors contributing to its persistence. The insights gained from this research will assist policymakers in formulating targeted policies and interventions to manage inflation more effectively, fostering a stable and sustainable economic environment in Pakistan.

II. INFLATION IN PAKISTAN OVER THE LAST YEAR

The data shows a consistent upward trend in inflation over the last year, with significant fluctuations observed. In May '22, the inflation rate was recorded at 13.8%, indicating moderate inflationary pressure. However, starting from June '22, there was a sharp increase in inflation, with the rate reaching 21.32%. This surge continued throughout the subsequent months, with July '22, August '22, and September '22 witnessing inflation rates of 24.93%, 27.26%, and 23.18% respectively.

The inflation rate peaked in April '23 at 36.4%, which signifies a considerable increase in prices over the one-year period. The inflation rate consistently remained above 20% from June '22 to April '23, indicating high and persistent inflationary pressure in the economy. These inflationary pressures can be attributed to various factors such as increasing energy prices, rising food costs, exchange rate fluctuations, and supply chain disruptions. High inflation can have detrimental effects on consumers' purchasing power, business profitability, and overall economic stability.

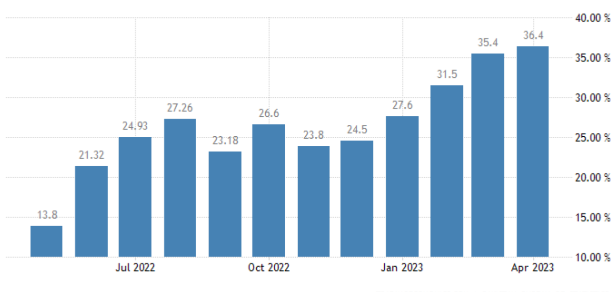


Figure 1. CPI monthly change rates in Pakistan (%) [2]

III. FACTORS BEHIND THE INFLATION

A. Devastating Floods

The devastating floods that occurred in Pakistan from June to October 2022 have had significant implications for the country's economy. The extensive damage caused by the floods, amounting to billions of dollars, has disrupted various sectors of the economy and created several factors that contributed to inflationary pressures. The extensive financial losses resulting from the floods in Pakistan are estimated at Rs 3.2 trillion ($14.9 billion) of damage and Rs 3.3 trillion ($15.2 billion) of economic losses [3].

The substantial damage to agricultural fields, a vital sector of Pakistan's economy, has severe implications for food production. The floods destroyed crops and disrupted farming activities, leading to reduced agricultural output. As a result, the scarcity of food supply drove up food prices, impacting the overall inflation rate. This situation is particularly concerning given that Pakistan heavily relies on agriculture for domestic consumption and exports.

Additionally, the displacement of millions of people and the destruction of homes and infrastructure had significant social and economic consequences. The need for immediate rehabilitation and reconstruction efforts required substantial financial resources. The government's response to such crises often involves increased public spending, which can contribute to inflationary pressures. The infusion of funds into the economy, combined with limited productive capacity due to the damage caused by the floods, can potentially lead to increased demand for goods and services, pushing prices upward [4].

B. COVID-19

The COVID-19 pandemic had a significant impact on the economy of Pakistan, and one of the effects was the contribution to inflation. The various measures taken to control the spread of the virus, such as lockdowns and restrictions, disrupted supply chains both domestically and globally. These disruptions resulted in a decrease in the availability of goods and services, leading to an imbalance between supply and demand. The scarcity of certain essential goods and disruptions in production and distribution networks lead to price increases, which in turn contributed to inflationary pressures.

Moreover, the pandemic led to increased healthcare costs. The government and individuals alike had to allocate additional resources towards testing, treatment, and vaccination efforts. These increased expenditures in the healthcare sector put further pressure on the overall economy, potentially leading to inflation.

Furthermore, the economic slowdown caused by the pandemic, with reduced economic activity and employment, affected people's purchasing power and disposable income. This decline in consumer demand coupled with increased costs for businesses due to the pandemic's impact on operations could lead to price increases as businesses try to recover their losses, potentially exacerbating inflation [5].

During the initial stages of the lockdown in March 2020, the Pakistan stock market experienced significant daily losses, averaging around 1500 points. These losses were primarily attributed to three main factors: an increase in interest rates, a decline in oil prices, and the onset of the coronavirus pandemic. As a result, billions of rupees invested in various shares saw their value decrease by one third or, in some cases, even half.

The graph illustrates the movements of the Karachi stock market, specifically the KSE-100 Index, which had reached above 42,000 in January 2020 and was expected to continue rising. However, the outbreak of COVID-19 caused widespread panic, and the situation worsened when the lockdown measures were announced in mid-March 2020.

Figure 2. KSE-100 Index crashing in March 2020 [6]

C. Rise in Global Oil Prices

The rise in global oil prices had a direct impact on inflation in Pakistan due to the country's heavy reliance on oil imports. Pakistan is a net oil importer, which means it depends on importing a significant portion of its oil consumption from international markets. Therefore, any increase in global oil prices leads to higher import costs for Pakistan, which can have inflationary effects [7].

When global oil prices rose after the end of COVID-19 lockdowns, the cost of importing oil increased for Pakistan. This increase in import costs can directly affect various sectors of the economy, particularly transportation and energy. Higher transportation costs can lead to increased prices of goods and services as businesses pass on the additional expenses to consumers. Similarly, increased energy costs can impact the production and manufacturing sectors, resulting in higher prices for goods.

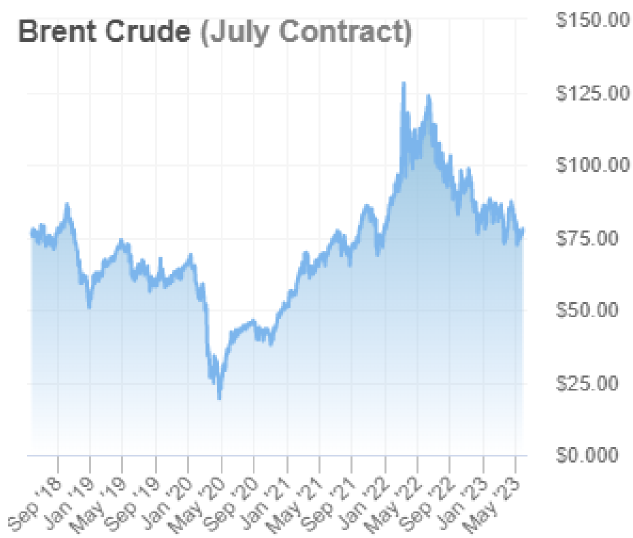


Figure 3. Rise in Brent Crude Oil Prices [8]

D. Rupee Depreciation

Rupee depreciation has had a significant impact on inflation in Pakistan. When the value of the Pakistani rupee decreases relative to other currencies, it leads to increased costs for imported goods and services. Pakistan heavily relies on imports for various commodities, including essential items such as petroleum, machinery, and raw materials. As the cost of these imports rises due to rupee depreciation, businesses often transfer the increased costs to consumers by raising prices. This phenomenon, known as imported inflation, can contribute to overall inflationary pressures in the country [9].

As the prices of imported goods and services increase, it affects the cost of living for households and can erode their purchasing power. Furthermore, the increased prices of raw materials and inputs for businesses can result in higher production costs, which can further lead to price hikes [10]. Therefore, rupee depreciation plays a significant role in driving inflation in Pakistan by influencing the prices of imported goods, impacting consumers, and affecting the overall economy.

n	Mode	Q1	Median	Q3	Min	Max	Mean	SD	Kurtosis	Skewness
385	224.62	218.88	225.64	267.5	185.65	295.65	236.73	30.20	1.96	0.50

Table 1. Descriptive statistical values for USD/PKR Exchange Rate April 2022 – May 2023 [11]

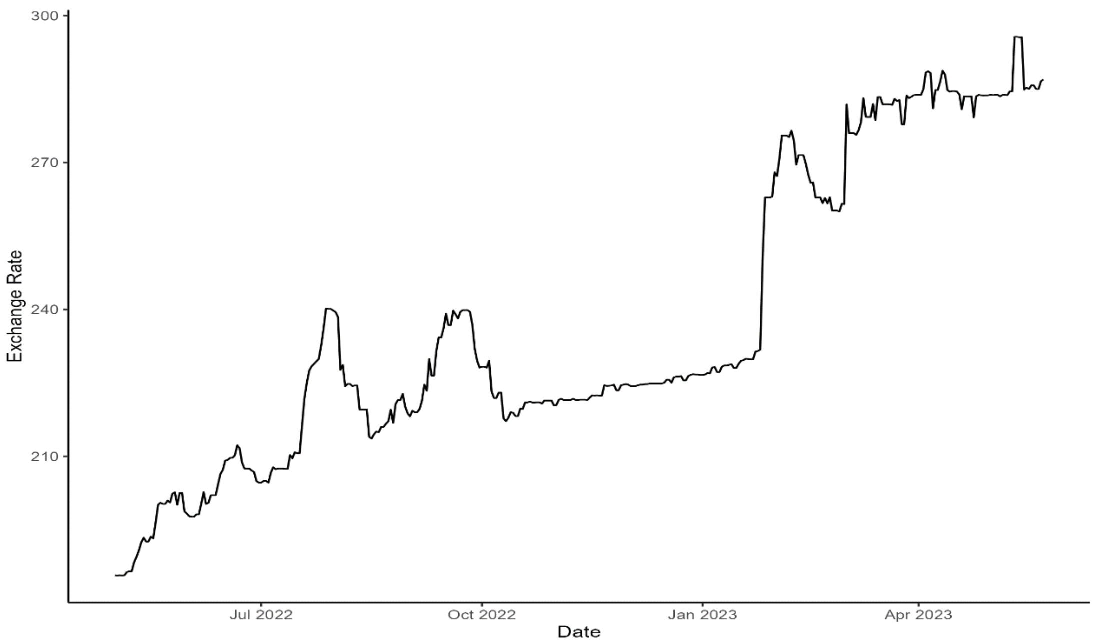


Figure 4. USD/PKR Exchange Rate Graph April 2022 - May 2023 [11]

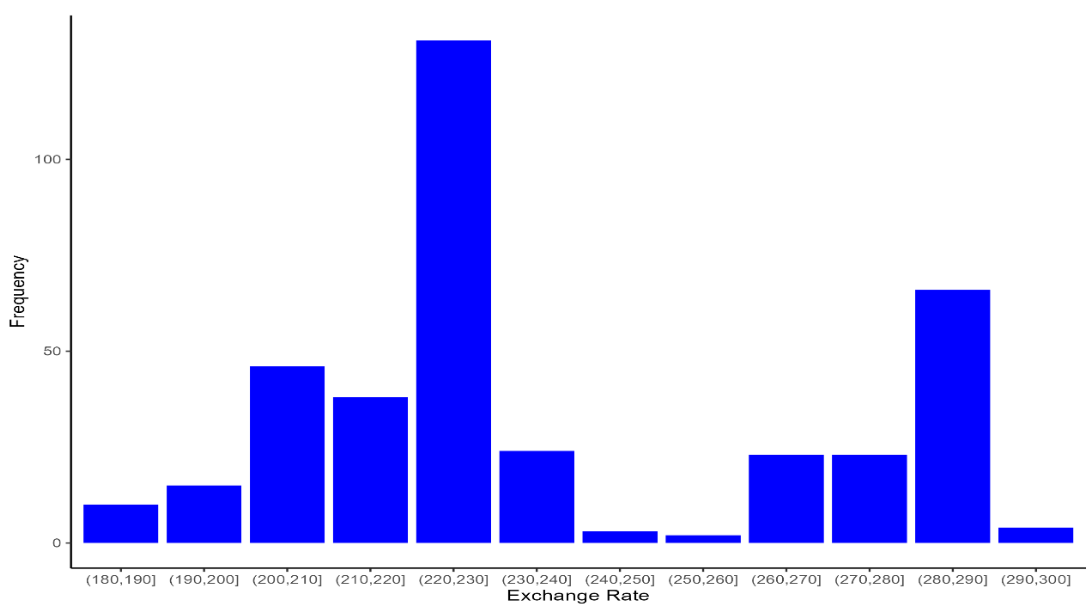


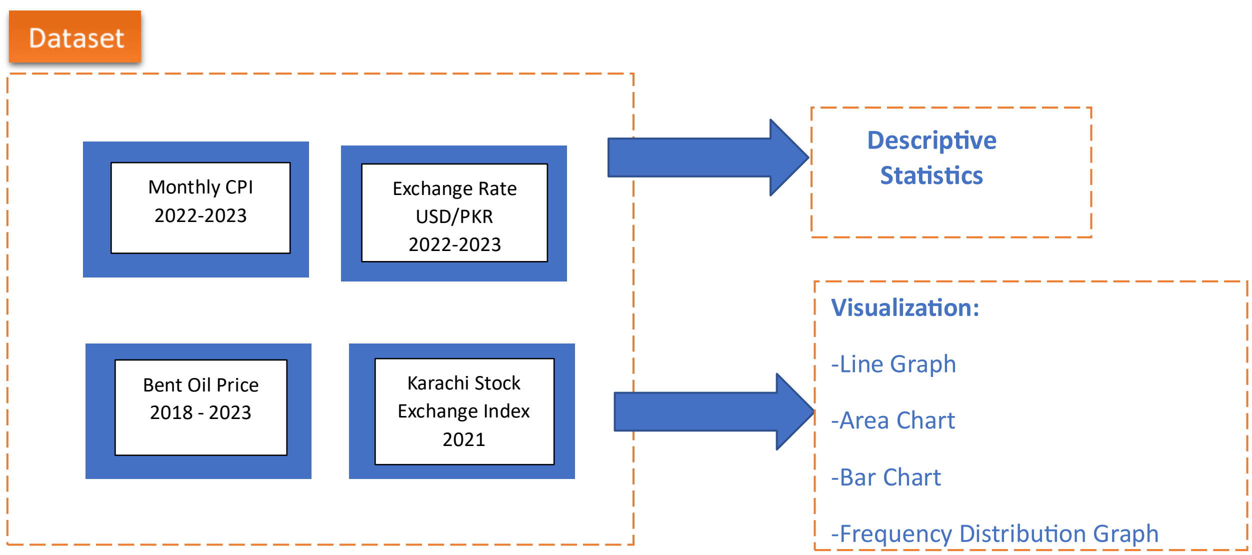
Figure 5. USD/PKR Exchange Rate Frequency Distribution April 2022 - May 2023 [11]

IV. CONCLUSION

The analysis conducted in this study sheds light on the factors underlying high inflation in Pakistan from April 2022 to April 2023. The data reveals a notable upward trend in inflation, with consistently high rates exceeding 20% throughout the entire year. The analysis identifies various factors that exert influence on inflation in Pakistan. Key drivers of inflationary pressures include escalating energy prices, increasing food costs, fluctuations in exchange rates, and disruptions in the supply chain. These factors collectively contribute to the sustained and elevated levels of inflation observed during the study period.

The elevated inflation rates pose significant challenges for consumers, businesses, and the overall economy. They erode purchasing power, escalate production costs, and create an environment of uncertainty for businesses. Effectively addressing these inflationary pressures is essential for policymakers to maintain macroeconomic stability and foster sustainable economic growth. To tackle high inflation, policymakers should consider employing a combination of monetary and fiscal policies. This may involve tightening monetary policy to curb excessive money supply growth, implementing prudent fiscal measures to control government spending, and adopting supply-side interventions to address underlying structural issues that impact production costs. By addressing the root causes of high inflation, Pakistan can enhance its economic resilience, safeguard the well-being of its citizens, and cultivate an environment conducive to sustainable development.

V. GRAPHICAL ABSTRACT



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