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Economy of Pakistan: In the context of Inflation, Money Supply and Exchange Rate

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Abstract

GDP (Gross domestic product) is quite possibly one of the primary markers that specialists use to decide the well-being of a nation's economy. Essentially, all administration and monetary chiefs use Gross domestic product as a measurement for arranging and strategy making. Gross domestic product incorporates the market worth of each nation's items and administrations throughout some undefined time frame. This study aims to research the effect of the Unfamiliar Direct Speculation exchange rate, money supply, and inflation rate of the Pakistani Rupee against the US Dollar on Pakistan's GDP from 1960 to 2020. An element of this study is quantitative. In this manner, a logical methodology was utilized. Optional information for Gross domestic product, unfamiliar direct venture, inflation rates, money supply, and exchange rate from 1960 to 2020 was obtained from the State Bank of Pakistan site. The information examination procedure was the relapse strategy utilized in E-Perspectives. The consequences of this study showed that unfamiliar direct venture and swapping scales essentially affect the financial development of Pakistan's Gross domestic product. The impact of the inflation rate and money supply was positive, yet the impact of exchange on Gross domestic product was negative. The exchange balance possibly affects Pakistan's Gross domestic product. The review reasons that the public authority needs to establish a tranquil climate for outsiders to put resources into Pakistan to affect Pakistan's financial development decidedly. The public authority is likewise proposed to check the deterioration of the cash, which antagonistically influences the country's monetary turn of events.

Keywords: GDP; Inflation; Money Supply; Exchange Rate; Pakistan

INTRODUCTION

Economic growth varies from country to country (Liu et al., 2022). Several potential factors were recognized over time; however, empirical research has been an actual undertaking in finding the relevant determinants of growth. The econometric consequences display that human capital, monetary improvement, and industrial manufacturing drive the monetary boom; at the same time, openness to change has a bad effect on the financial system (Pelinescu, 2015). This article empirically examines the effect of macroeconomic factors on financial increase in democratic and non-democratic Pakistan. Statistical evaluation uses time collection methods and annual records from 1971 to 2018. The empirical evaluation concludes that exports, remittances, and actual powerful alternate charges are essential. Exports, remittance inflows, and the effective exchange price greatly impacted long-term economic growth. Also, imports hurt financial growth (Alshammari et al., 2023).

Economic boom refers to the potential of an economic system to boom its effective potential to make extra units of products and offerings This monetary increase is likewise visible as a pitfall in monetary policy (Irshad et al., 2022). The increase or development of a rustic may be measured by diverse economic signs, including the Human Development Index, Total factor productivity, Gross domestic product increase fee, and so forth. Unsustainable and occasional degrees of financial increase in developing nations will continue to pose problems for politicians, experts, and authorities for a long time to come (W. Li et al., 2023). The foremost reason for the unsustainable increase is a) high inflation, b) increasing overseas debt, c) trade price volatility, d) better intake and decreased financial savings, e) awful governance and political implications, f) trade imbalance. g) spend extra, earn much less, h) strength and water shortage, and i) political instability and many others. Sustained monetary growth with low inflation is one of the most important dreams of policymakers to play a powerful role in economic policymaking (ROUSSEAU & WACHTEL, 2011).

Corruption is one of the main factors affecting Pakistan's economy (Dong et al., 2023). In the ongoing circumstance, it has become a political discussion that even our nation's head of state accuses. As per the Debasement List, Pakistan positions 116th out of 175 nations. To work on our economy, we should end debasement from the beginning. During the 1960s and 1980s, Pakistan became normal 2% quicker than South Asia (Weede & Kämpf, 2002).

Notwithstanding, development rates during the 1990s have been seen to be underneath local midpoints. The issue was made by friendly and political impedance in the great development pattern. The economy can be better on the off chance that the nation is strategically and socially steady (Zagler & Dürnecker, 2003).

This paper tries to take a look at several macroeconomic variables that play a crucial function in accelerating the monetary boom from the Seventies till 2019.

Literature Review

GDP

GDP is the sum of the financial or market value of each of the large, complete enterprises and governments created in a country over some time (C. Li et al., 2023). Fills a complete scorecard for a country's financial health as a large part of its GDP. Gross domestic product is usually determined on an annual basis but may also be determined every quarter. For instance, the US, the public authority distributes yearly gross domestic product gauges for each monetary quarter and scheduled year. Each record remembered for this report is on a genuine premise. The information is adapted to cost changes and, hence, expansion (Jong-A-Pin, 2009).

Yearly Gross domestic product is often used to look at financial size. Strategy producers, monetary market members, and chiefs are keen on how Gross domestic product changes over the long haul (communicated as a yearly pace of development or constriction). This works with an examination of yearly and quarterly rates. Gross domestic product estimates the complete worth of all merchandise fabricated and benefits delivered during a given period (Peng, Ahmad, Irshad, et al., 2023). Total national output (GDP) is one of the most commonly used percentages of doing or making financials. It is characterized as the total value of labor and products provided within a country during a specified period (monthly, quarterly, or yearly). Gross domestic product is an accurate indicator of the size of an economy, and the growth rate of gross domestic product is perhaps the absolute best indicator of financial development. Still, long-term per capita gross domestic product is poor relative to everyday comfort. Closely related to changes in expectations (Jalilian et al., 2007).

Several factors affect the GDP, but here are some main factors that affect most (Inflation, Exchange rate, money supply)

Inflation

Inflation is an increase in costs that can be deciphered as a diminishing in buying control after some time. The pace of decrease in buying power is reflected in the normal cost increment throughout some period for a container of chosen labor and products (Alola et al., 2019). A cost increment, frequently communicated as a rate, implies that a cash unit is purchasing significantly not exactly in the past period. Expansion is rather than emptied, which happens when costs fall and buying power increments. Inflation is Great when it is moderate. There are two situations in which this happens (Wang et al., 2023). The first is when buyers anticipate that costs should keep on ascending because of expansion. At the point when costs go up, individuals need to purchase now instead of paying later. This will increase interest temporarily. Accordingly, store deals are expanding and processing plant yield is expanding. The are bound to enlist new staff to fulfill their needs. Make an ethical cycle that supports monetary development (Lin et al., 2023). The second is whether to eliminate the gamble of collapse. Then the cost will fall. All things considered; individuals hold back to check whether the cost drops further prior to purchasing. It decreases request and organizations lessen inventories. Therefore, manufacturing plants diminish results and lay off laborers. Joblessness will rise, prompting wage collapse (S. A. R. Khan et al., 2020). Laborers have less cash to spend, further decreasing interest. Firm's lower costs. It worsens emptying. Hence, emptying greatly affects financial development than expansion. Costs fell 10% during the Economic crisis of the early 20s (Zhang & Graham, 2020).

The connection among Inflation and GDP (Gross domestic product) plays an extremely sensitive role. Yearly Gross domestic product development means quite a bit to securities exchange financial backers. Most organizations can't develop their profit assuming that complete monetary result eases back or simply remains stable (which is the principal driver of stock execution). Yet, over the top Gross domestic product development is likewise hazardous. Since it will probably be joined by a spike in expansion, downgrading our cash (and future corporate profit) and harming securities

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exchange benefits (Ni et al., 2023). Today, most market analysts concur that 2.5% to 3.5% yearly Gross domestic product development is the most noteworthy the economy can securely support without causing negative incidental effects. In any case, where do these numbers come from? To respond to this inquiry, we really want to present another variable: the joblessness rate (Chen et al., 2022).

Exchange rate

Exchange rate is the rate between countries and economies at which cash can be traded for others. It is utilized to decide the general worth of various monetary forms and is significant in deciding the elements of exchange and capital streams. A conversion scale is the rate at which one cash is traded for another, influencing exchange and cash developments between nations. Trade rates are impacted by both the worth of your home cash and the worth of your unfamiliar money. Fluctuations in exchange rates have an effect t on different economic factors and affect the all economic stability of a nation (S. F. Ahmad, Han, et al., 2023). That's why economic politicians and researchers continuously check and analyze the different impacts of exchange rate fluctuations. The important role exchange rates play in a country's commercial activities, and the importance of international trade to market economies, the impact of exchange rates on trade has become a very important problem especially after the collapse of Bretton woods both in the theory of international economics and in economic policy decision makers. Traditionally, analyzing the effect of exchange rate fluctuations on trade means analyzing exchange rate volatility and other important factors on how exchange rate impact trade is not overlooked. In addition to the usual interest in studying the effect of exchange rate volatility on trade, the previous literature places increasing emphasis on analyzing the impacts of exchange rate misalignment (S. F. Ahmad et al., 2021). As Blamey points out, short-term measures of volatility need to be complemented by long-term measures that better account for the permanence and mean-reversion that can make changes in exchange rates. In this regard, exchange rate misalignment to volatility can be a huge source of uncertainty for participants in international trade (S. F. Ahmad, Alam, et al., 2023).

No country in the world is completely economically independent. The global economy is interconnected in many ways, including imports, exports, foreign exchange, and foreign direct investment. In most economic relationships that exist between nations. Exchange rates play a crucial role. The price (value) of a foreign currency relative to the local currency is actually very important in understanding growth in any country (S. F. Ahmad et al., 2022). There is ample evidence of strong alignment between exchange rates and per capita output growth in developing countries. The success of currency depreciation in promoting the trade balance is highly dependent on directing demand to the right level and on the domestic economy's ability to meet additional demand by supplying more goods. Overall, exchange rate fluctuations should determine economic performance.

Therefore, we need to assess the impact of exchange rate fluctuations on GDP growth (Appiah-Otoo & Song, 2021).

Money supply

currency supply is the amount of all monetary forms and other fluid supports in a country's economy on the reference date. The cash supply remembers all money for flow and all bank adjusts that can be effectively changed over into cash by account holders. States issue banknotes and coins through the National Bank or the Depository, or a blend of both. To keep the economy stable, banking controllers increase or reduction the accessible cash supply through strategy changes and administrative choices (Y. Khan et al., 2022). An increase in the money supply is an important factor not only in accelerating the process of economic development, but also in achieving price stability in the economy. A controlled expansion of the money supply is necessary to achieve the goal of stable development. Healthy economic growth requires no inflation or deflation. Inflation is the biggest problem in developing countries (Hong et al., 2021).

A country's GDP does not perfectly reflect the productivity and health of the economy, but in general, higher levels of GDP are preferable to lower levels. A country's Gross domestic product gives data about the size of its economy, and Gross domestic product development is one of the most incredible signs of monetary development after some time. The gross domestic product per capita is likewise firmly connected with long haul expectation for everyday comforts improvement. By and large, when Gross domestic product development shows an expansion in financial efficiency, the worth of cash available for use increments. Since every cash unit can be traded for labor and products of higher worth (Peng, Ahmad, Ahmad, et al., 2023). Regardless of whether the cash supply isn't contracting, financial development will in general make a characteristic deflationary difference. Some proof of this peculiarity should be visible in the innovation area, where development and mechanical advancement are becoming quicker than expansion. Prices of TVs, mobile phones and PCs are currently on a downward trend (M. Ahmad et al., 2020).

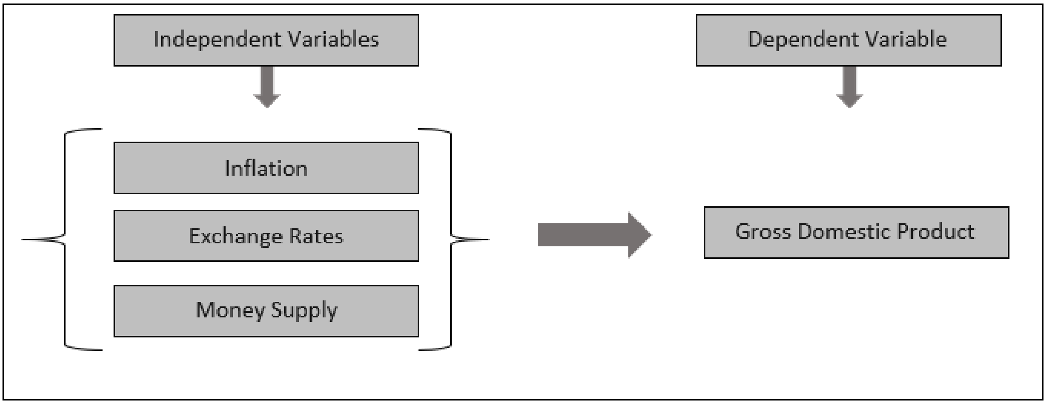
Hypotheses

H°: Inflation does not significantly affect GDP
H1: Inflation has an impact on GDP

H°: Exchange Rate does not significantly affect GDP
H2: Exchange Rate has an impact on GDP

H°: Money supply does not significantly affect GDP
H3: Money supply has an impact on GDP

Theoretical framework



Methodology

The study was depending on secondary data only. Literature data were collected from various journals, books, articles, papers, journals, and electronic sources to improve the quality of the secondary data obtained. Data for statistical analysis were obtained from the state Bank of Pakistan website. Money supply, exchange rate, and inflation rate are independent variables. But gross domestic product depends on variables. The sample size for data analysis in this study is based on his 61 years from 1960 to 2020. The statistical method used to analyze the data was the ordinary least-squares regression method. The software used for this is E-Views.

Result and Discussion

Data Stationary Test

The least square method Test is the most popular test for time series data to ensure that the data is steady in e perspectives. To find and state each variable, the researcher employed the least square method test. The least square method test indicates that the data set containing all four variables in this study is non-stationary. The P values of all the variables GDP, Money supply Exchange rate, and Inflation rate are more significant than 0, as shown in table 3 of the least square method test. This demonstrates that the supplied data set is non-stationary for all variables in the data.

Table 1
Descriptive stats

	GDP	EXCHANGE_RATE	INFLATION_RATE	MONEY_SUPPLY
Mean	85.72262	40.22346	8.015738	14.60328
Median	40.17000	21.75993	7.190000	14.60000
Maximum	356.1300	161.6166	26.66000	42.90000
Minimum	3.750000	4.769700	-0.520000	-4.000000
Std. Dev.	99.61054	39.97855	5.176240	7.405763
Skewness	1.365322	1.163204	1.429724	0.628924
Kurtosis	3.656387	3.549679	5.755731	5.997484
Jarque-Bera	20.04680	14.52390	40.08334	26.85803
Probability	0.000044	0.000702	0.000000	0.000001
Sum	5229.080	2453.631	488.9600	890.8000
Sum Sq. Dev.	595335.6	95897.07	1607.608	3290.719
Observations	61	61	61	61

All information are from 1960 to 2020, or around 61 years of perception. To that end we are thinking about cointegration. Assuming the information have cointegration, it will be in balance over the long haul. Thusly, fleeting information relapse likewise becomes significant. To do this, we test the cointegration of the information. A least-squares test was performed on the mistake term and found the blunder term in the information to be fixed, showing that the information are in harmony over the long run. Table 2 shows that the p-worth and t-measurement for the mistake term are critical, it is fixed to suggest that the blunder.

From Table 2 over, the information blunders are fixed with no unit root, and the information show long haul balance.

Table 2
Correlation matrix

	GDP	EXCHANGE_RATE	INFLATION_RATE	MONEY_SUPPLY
GDP	1.000000	0.961479	0.003413	-0.020333
EXCHANGE_RATE	0.961479	1.000000	0.032060	0.001834
INFLATION_RATE	0.003413	0.032060	1.000000	-0.001526
MONEY_SUPPLY	-0.020333	0.001834	-0.001526	1.000000

It can be seen from Table 2 that correlation matrix shows that all the money supply and inflation rate are correlated with GDP, the value of ER shows that ER is negatively weakly correlated with GDP

Table 3
Regression Results

Dependent Variable: C
Method: Least Squares
Date: 05/19/23 Time: 22:52
Sample: 1960 2020
Included observations: 61

Variable	Coefficient	Std. Error	t-Statistic	Prob.
GDP	-0.000355	0.001703	-0.208222	0.8358
INFLATION_RATE	0.035672	0.007647	4.664827	0.0000
MONEY_SUPPLY	0.032398	0.004570	7.089977	0.0000
EXCHANGE_RATE	0.003762	0.004218	0.891942	0.3762

Mean dependent var	1.000000	S.D. dependent var	0.000000
S.E. of regression	0.358413	Akaike info criterion	0.849066
Sum squared resid	7.322233	Schwarz criterion	0.987484
Log likelihood	-21.89652	Hannan-Quinn criter.	0.903313
Durbin-Watson stat	0.658576		

You ought to eliminate the heteroscedasticity from your information and run it through another OLS relapse process. To do this, we take the principal contrast of the information and test for heteroscedasticity. In the wake of finding the primary distinction, we can see that the heteroscedasticity issue has been eliminated from the model. Presently the information is great on another level. You can now run further on the information with a differential OLS relapse. Table 3 above shows the heteroscedasticity results in the wake of differencing. We found the p-an incentive for the F-measurement to be non-huge, recommending that the underlying distinction takes care of the issue.

Conclusion

In view of our discoveries, we can reason that Inflation rate and money supply don't essentially affect expansion in Pakistan. Our concentrate hence doesn't uphold any of the four speculations tried.

By and large, the consequences of this study recommend that in controlling expansion, a strategy producer shouldn't zero in on one variable, (for example, inflation rate or the money supply), yet rather on the different factors that might add to expansion. It proposes that we really want to zero in on factors. This recommends that a more thorough methodology ought to be taken that considers 'commitments to Pakistan'.

With respect to, Pakistani policymakers ought to consider considering other potential factors that might add to expansion, for example, Changes in organic market for labor and products, vacillations in global ware costs, and political flimsiness. Additionally, further examination might be led to analyze the connection between expansion in Pakistan and other existing monetary factors.

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