

Limiting The Crowding Out Effects of Macroeconomic Variables - An Empirical Study of India

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Abstract:

Purpose — To use the empirical findings to advocate policies intended to enhance the crowding-in effects and to limit the crowding-out effects. The article analyses macroeconomic variables while controlling fiscal and monetary variables, focusing primarily on the relationship between capital formation and public debt in India.

Methods — The research uses a multiple regression model to evaluate long-run and short-run investment flows within a dynamic catalyst theoretical perspective. We employ a core sequence of financials statistics that includes improved organized management sector coverage.

Findings — Our findings imply that, if the amount is invested effectively, capital formation and economic expansion go hand in hand. Public investment encourages private counterparts in both the long and short runs, barring industry-level short-term crowding-out in the industrial and financial services sectors. Fiscal imbalance, implied macroeconomic variables, and sovereign susceptibility, however, have a negative impact on capital formation. However, when the government sector invests in extraction and production but less in infrastructure, the long-term crowding-out impact of budget deficit is quantitatively higher.

Implication — Significant infrastructure spending as a percentage of total government spending would lessen the negative effects of the deficit on capital formation. Furthermore, sound fiscal reforms and control of the consumer price index would boost the private investment market.

Keywords: Capital formation, GFD, GDP, regression, crowding in-out and investment

INTRODUCTION

India is one of the world's largest yet densely populated nations. Over the past 20 years, gross domestic product (GDP) growth has increased by an average of over 7%. Nearly two decades ago, capital formation in developing nations was either falling or at low levels. It's likely that several macro-factors were involved in this. The debt crisis and the economic shocks brought on, particularly by the oil crises, were most remarkable among them, as they caused macro-instability in the relevant economies. The management of government debt is a worldwide issue that both developing and developed nations must deal with. Government debt's macroeconomic repercussions have long been a topic of discussion in the literature. By impacting numerous macroeconomic variables including interest rate, inflation, investment, and other factors in an economy, the accumulation of public debt may lead to increased

policy uncertainty and hinder economic progress. The way in which money raised by public debt is spent determines the burden of that debt. Due to its negative consequences on capital accumulation and productivity, public debt that is used for relatively ineffective purposes becomes a dead weight. As a result, it slows economic growth. On the other hand, if the government uses the money it borrows to fund capital formation and other forms of development, the country's productivity will increase. They are therefore not a burden.

The topic of whether government demand encourages private investment is a crucial one in macroeconomics and finance. It is generally acknowledged that understanding the growth and development of any country or economy requires a closer examination of the role played by capital formation. Long-term interest rates are a significant channel via which the development of governmental debt can influence the economy. Greater government budget deficits backed by debt will likely result in higher long-term interest rates, which could discourage private investment and restrain potential production growth. When there is a "feel good" component in the macroeconomic environment, corporate investors are encouraged about the foreseeable analyst estimates and, consequently, the certainty of the investment environment. Due to the private sector's expectation that the benefits from its investment will be used to repay creditors, a big public debt may result in debt overhang, a situation in which investment is curtailed or delayed. Debt or borrowing intended to increase domestic savings is understood to be essential for boosting investment, financing development, and economic growth in general, and capital formation in particular.

The crowding out effect describes a situation in which rising interest rates cause a decline in private investment spending, which dampens the initial rise in total investment spending. To enhance economic activity, the government occasionally adopts an expansionary fiscal policy posture and raises spending. Interest rates rise as a result of this. Private investment decisions are impacted by rising interest rates. A significant crowding out effect could even result in lower economic income. Higher interest rates increase the cost of investing money and make it harder to use debt financing arrangements. This eventually results in less investment and cancels out the effects of the initial increase in total investment spending. Typically, additional taxes or government borrowing are used to pay for the initial rise in spending. As capital accumulation is the primary driver of economic growth, at least up to the optimal amount of capital per worker, raising investment in developing nations is a crucial policy goal.

The state must spend more money to address these needs since, from the perspective of the modern state, needs are always rising. Ordinary public revenues such as taxes, duties, fees, parafiscal revenues, property and enterprise income, taxes, and penalties typically cover public expenditures. However, the state is currently experiencing a public sector deficit as a result of factors like significant infrastructure investments, war, finance for international development, natural catastrophes, economic crises, budget deficits, as well as rising general government spending. They mention borrowing as a way to get out of this predicament.

Capital is becoming more mobile thanks to globalization, and there is fierce financial competition now on international markets. Particularly, emerging nations have sought to use them to finance their own growth by luring foreign short-term capital flows into their nations through a variety of inducement

mechanisms (such as high interest rates). However, the implementation of incentive mechanisms as well as the abrupt fluctuations in capital movements have pushed emerging nations into an endless cycle of external debt. The impact of public debt on economic development is as follows: if the money borrowed for economic development can be channeled to infrastructure investments (such as dams, roads, mining, etc), they increase the new investments through a multiplier effect. The growth in employment and national wealth that follows ensures economic development. Due to a lack of internal finance sources, less developed and developing nations today that invest in development turn to external borrowing. This circumstance could result in debt financing through debt if the aforementioned nations do not employ external financing sources in the necessary domains. This circumstance also demonstrates how crucial debt management is.

While a lack of this capital is one of the key traits of developing economies, external debt, or international borrowing, is as essential as the requirement for capital in economic development. Undersaving is a direct cause of the shortage, which forces economies to borrow money from other countries to make up the difference. To this purpose, capital accumulation, also known as capital formation and colloquially known as capital fundamentalism, plays a crucial role in the growth of many countries. This has long been recognised by economists. Regardless of the method used to finance the fiscal deficit, the direct crowding out occurs when an increase in public investment replaces private capital formation generally on a dollar-for-dollar basis. The phenomenon of financial crowding out results in a partial loss of private capital formation because of an increase in interest rates brought on by the government's preemption of real and financial resources through bond financing of fiscal deficits.

The effectiveness of the state's participation in the economy through public businesses has been a major source of worry in emerging nations. Despite receiving significant financial resources, it is generally acknowledged that public enterprises have performed financially poorly in the majority of countries. The significant state participation in economic activity over the period of around three decades may have been one of the main barriers to private capital formation. Since the ineffective public business sector required ongoing bailouts and was unable to produce enough money to fund the government budget, the dominance of the public sector clearly put pressure on fiscal operations. The government frequently turned to the financial system for funding due to restrictions imposed by a lack of foreign financing and the inefficiencies of the tax system. By diverting financial resources that might have been used for private sector capital expansion, such financing increased inflation and economic pressures while also impeding long-term growth and development.

Additionally, it has been demonstrated that benefits on public investments are insignificant, a fact that sparked support for enhancing the contribution of the corporate sector to the economy. In developing nations, as well as in regional and global financial institutions, the tendency to increase private sector participation has significantly influenced policy recommendations and policy-making processes, giving rise to a wave of privatization programmes intended to support private sector development. Concern over the possibility of corporate sector capital expansion during significant macroeconomic changes has followed the reevaluation of the structural balance of state/private sector ownership. The potential effects of both fiscal and monetary sufferings on the private sector's ability to commit significant capital expenditures and the consequences on various institutions' ability to mobilize required available funds

have received particular attention in light of the global expansion targets that empowered macroeconomics in developing countries.

REVIEW OF LITERATURE

Penzin et al. (2022) The study discovers that private investment tends to respond favorably when public debt is below the threshold value of roughly 3%, providing evidence of the crowding-in effect. However, if debt increases over this point, it has a severely detrimental impact on private investment (crowding-out effect). For the emerging economies, we thus offer evidence in favor of the likelihood of a nonlinear link between public debt and private investment. Although the advanced economies still show signs of a nonlinear relationship, the emerging economies show less evidence of the crowding-out effect since their private investments do not appear to be threatened by larger public debt stocks. As a result, we draw the conclusion that private investment in developing and industrialized economies reacts differently to rising state debt. Based on these conclusions, we advise public policy makers, particularly fiscal managers, to maintain sustainable levels of the public debt ratio that enhance rather than reduce the productivity of the private sector. **Shiv Shankar et al. (2021)** In a dynamic linear conceptual perspective, the paper examines capital crowd-out dynamics between the public and private sectors in India. Both the long- and short-term correlations reflect balance between private and governmental investment at the aggregate level. Additionally, the private capital formation is seriously affected by the fiscal deficit, inflation expectations, and national instability, yet credit flow is appealing. On the other hand, the cost of financing seems unaffected over the long term, while it has a short-term negative impact on private investment. Public investments at the sectoral and industrial level also serve as a long-term complement to private investment, suggesting a consistent mutually reinforcing link for India. But in the short run, state spending on building and financial services crowds out private spending right away and a year later, respectively. The production gap, trade openness, and reforms from the 1990s all have a substantial impact on private investment, particularly so at the industry level. **Dr. Mahendra R. Mishra (2019)** According to the study, from 2004–2005 to 2017–18, there was a correlation between investment and overall development in India. The study examines the relationship between particular macroeconomic factors using a simple regression equation. This outcome is significant from a policy perspective because it highlights how crucial investments are to the nation's development and economic progress. **Dash, P. (2016)** According to the study, private investment is crowded out by public investment. According to our initial findings, after adjusting for economic conditions, a 1% increase in public investment as a percentage of GDP causes a 0.81 and 0.53 percent decline in private investment as a percentage of GDP in the long run and short run, respectively. Additionally, it is discovered that an incumbent who is "market friendly" can reduce the extent of the crowding out effect of public investment. The analysis also shows that a rise in the proportion of foreign direct investment to GDP reduces the degree to which governmental investment crowds out private investment. Additionally, it has been observed that public infrastructure has a favorable short-term impact on private investment. However, if public investment projects are of poor quality and/or their financing seems to have a negative effect on the availability of bank credit or lending rates, this complementarity may dissolve. Moreover, not all forms of public investment are equally helpful. In fact, public investment should be targeted more on products and services with considerable positive externalities that are non-rival and non-excludable in nature. **Hasanah et al. (2016)** The study looks into the effect of the budget deficit and tries to find a link which is financed from internal and external debt. And this analysis was done with the

help of sub three factors. The first factor was the private sector which caused the crowding out of private consumption expenditure. The second factor is the implications of fiscal policies due to the change in the interest rates . And, the third factor was the foreign sector and how well it was connected with the trade balance or the phenomenon of twin deficits. With the help of simultaneous equations structural framework, the outcome for the above three factors were different. There was no crowding out investment, which means the budget deficit increased due to increase in the government spending, which further decreases the amount of private consumption but wasn't highly significant. The interest rate had a significant impact on the demand for money which can be depicted in the IS-LM model. There was no twin deficit problem, which means the government budget policy wasn't directly influencing the trade balance deficit which further says that increase in the budget deficit does not lead to increase in the domestic interest rate, so there was no capital inflows and thereby appreciation of rupiah. **Abdullahi et al. (2016)** The study claims that the general debt, particularly the external debt, has created a misfortune for economic growth. The crowding out of private investment has negatively impacted the positive growth of capital formation which is considered one of the most important macroeconomic variables for the sustenance of economic growth overall. Different economic theories were inspected and the financial theory gap came into notice and the idea was infested among the developed nations and they separately named it as foreign borrowings. And the findings were that borrowing will help in the capital formation, output will grow and hence the economy as the marginal output of capital will be more than the global interest rates. On the other hand, several criticized the debt overhang as one of the factors of external debt. Further, the crowding out is considered another crucial factor of the external debt and the philosophy behind this is that the concept assumes the government spends greater part of national savings meant for investment due to increase in demand and the supply being constant, the overall cost of money increases. Therefore, it has severely impacted the investment level of both the countries. **Bahal et al. (2015)** They estimated a variety of SVECMs over various sample periods and frequencies to examine the presence or absence of investment crowding in (out) in India, taking into account the significance of key structural changes that occurred in the Indian economy during the 1980s and early 1990s and their potential impact on the relationship between public and private investment. A long-term relationship between output, public, and private investment was also incorporated (and tested), which was inspired by the stability of the "great ratio" between total investment and production. In order to identify the SVECMs and decompose the structural innovations into those that have long-term and short-term effects, they used the characteristics of the theory-driven long-term relationship. They also discovered that over the period of 1950–2012, public investment "crowded out" private investment in India. On the other hand, they discovered evidence in favor of crowding in private investment over the more recent era of 1980–2012. This shift in the alliance can be linked to the policy changes that got under way in the early 1980s and picked up steam following the crisis in the Indian balance of payments in 1991. **Mishra et al. (2010)** The study uses time series data on market capitalization, total market turnover, and stock price index for the period spanning from the first half of 1991 to the first half of 2010 to assess the effect of capital market efficiency on economic growth in India. The use of a multiple regression model demonstrates that India's capital market has the ability to support the nation's economic expansion. High market capitalisation and comparatively high market liquidity are to blame for this. For the purpose of achieving the very goal of ensuring the optimal allocation of economic resources for the country's sustainable growth, market organizations and regulations should be such that a significant number of domestic as well as foreign investors enter the market with huge listings, investments, and

trading. **Kollamparambil et al. (2010)** The study compares South Africa with other developing nations, it has a minimal cost ratio. Government investment as a percentage of total expenditure has also been dropping. The research examines the nature and connections between state and private investment in South Africa using quarterly time series data from 1960 to 2005. The study's conclusions have significant policy ramifications and show that, while public investment does not directly "crowd in/out" private investment, it does so indirectly through the multiplier effect. Therefore, increasing government spending in the social and infrastructure areas is likely to boost private sector investment in the nation. A more aggressive fiscal policy is therefore recommended to boost the investment-to-GDP ratio, which can encourage faster growth rates. **Lekha S. Chakraborty(2007)** The study finds that there is no direct relationship between the crowding out effect and private investment. Infact, the findings speak about the real interest rate and the effect they have upon private capital formation i.e. whether it's due to sensitive interest rates or due to high interest rates there is a scope of fiscal deficit. Further the non homogeneity effect was analyzed of public infrastructure and the private infrastructure. And overall, while inspecting various macro variables, it was found that the public investment particularly infrastructure has been an important factor for finding the relationship of private investment whether it is a medium or long term plan for further policy implications. Another aspect of no crowding out can be seen with the amount of savings especially households who were in favor of financial assets. With the given information, it depicts that the loanable funds have reduced the pressure of interest rate. Also, the monetary resources in the capital market has equipped the private sector to not fall for shortage in the investible resources. And the overall availability of liquidity assets has helped in the stability of interest rates which finally condemned the crowding out effect of the private investment. **Seth et al. (2007)** The study shows that, in the years following liberalization, capital flows significantly affected India's macroeconomic environment. As more actual and financial variables have been studied, capital flows have become an important explanatory variable. For the administration of capital inflows, this clearly affects policy. To manage the flood of capital flows into the economy, numerous fiscal and monetary policy actions have been taken. A rise in domestic system liquidity brought on by the central bank's intervention in the foreign exchange market to purchase dollars has ramifications for the control of inflation. In addition to the finance ministry, it has put limits on the amount of money that may be borrowed for commercial reasons from abroad while simultaneously relaxing limitations on how much money can leave the country. In contrast to some other nations, which seek either an inflation objective or a currency value aim, India's monetary policy uses the multiple indicators method. The RBI, in contrast, sets goals for both credit expansion and money supply growth in order to promote overall economic growth and price stability. **Bende–Nabende et al. (2003)** According to the report, the ASEAN-4 economies' private investment is positively impacted by output growth. Similar to how private investment is negatively impacted by governmental spending, showing a replacing effect rather than the expected complimentary effect Investment tends to be driven out of the comparably more developed countries but driven in by FDI in the relatively less developed ones. That said, its eventual impacts likely depend not just on the strength of ties within the host nation in addition to the resources that nation has available to it. While research implies that high borrowing costs undermine private initiative, exchange rates appear to have less of an impact. Aside from the Philippines' notable results, there is no evidence from the standpoint of public debt to suggest that foreign indebtedness reduces private investment in the other aforementioned nations, at least in the short term. On the other hand, there is some, but not strong, evidence that suggests economic uncertainty discourages private investment. While the long-run effects of expansion, FDI, and

government investment mirror the short-run effects, the long-run effects of public debt and exchange rates suggest a crowding-out effect and a crowding-in effect, respectively.

The findings drawn from the published findings examined are a product of the methodology, time span, and variables employed. As a result, although the conclusions are tentative, they tend to support the crowding-in hypothesis for more developed nations and those with established, stronger state systems, while the opposite is true for nations with still-transitioning state systems or weaker states. As a result, it is anticipated that the total empirical research for India or the region in general would bring value to the subject and offer new perspectives on how to enhance fiscal policies so that capital formation can yield greater returns.

RESEARCH DESIGN

The research design of the study will be descriptive and analytical in nature.

Data Collection

The Secondary data has been collected for different variables such as Consumer Price Index, Gross Domestic Product, Government Fiscal Deficit and Capital Formation from 1983-2021. It has been collected from different sources i.e., Reserve Bank of India, Economic Survey.

Data Analysis

The analysis is done with the help of a Multiple regression model using R and Microsoft Excel. A single dependent variable and several independent variables can be analyzed using the statistical technique known as multiple regression. In order to forecast the value of the single dependent value, multiple regression analysis uses independent variables whose values are known. Each predictor value is given a weight, with the weights indicating how much each predictor contributed to the final forecast.

Here, Y is the dependent variable, while the independent variables are X_1, \dots, X_n . Regression analysis ensures that the dependent variable may be predicted as precisely as possible from the set of independent variables when calculating the weights, a, b_1, \dots, b_n .

When one variable depends on a group of other factors, this method can be used to examine multivariate time series data. The dependent variable Y can be modeled using the set of independent variables. We are able to forecast the value of Y at any time when we are given the values of the independent variables.

Regression analysis can be performed in time series analysis using a set of historical data for the variables. The term for this is autoregression (AR).

RESULT ANALYSIS:

Descriptive Statistics:

One way for introducing descriptive analytics is using descriptive statistics. It is a group of technologies that provides quantitative summaries and graphics of the data. These tools calculate metrics of dispersion and central tendency. Central tendency measures like mean, median, and mode are all frequently employed. Each metric identifies a particular kind of usual figure in the data. Maximum and

minimum values, frequency, density estimation, mean difference, distribution skewness, and kurtosis are examples of dispersion (also known as variability) measures. In data analytics, the range of a variable within a dataset is crucial. It displays every potential value for the variable along with how frequently each one occurs. A table or function is used to show how the variable's values are distributed. Descriptive statistics' main goal is to enlighten the reader about a data set. It assists in condensing a significant amount of material into a number of relevant facts.

TABLE 1:

Summary	Capform	GDP	CPI	GFD
<i>Mean</i>	14.5934	14.5934	3.5314	11.7781
<i>Standard Error</i>	0.2298	0.2298	0.1315	0.2039
<i>Median</i>	14.6156	14.6156	3.6177	11.7323
<i>Standard Deviation</i>	1.4166	1.4166	0.8109	1.2567
<i>Sample Variance</i>	2.0069	2.0069	0.6575	1.5793
<i>Kurtosis</i>	-1.1691	-1.1691	-1.0776	-0.9378
<i>Skewness</i>	-0.0676	-0.0676	-0.1539	0.0963
<i>Range</i>	4.6569	4.6569	2.7202	4.9384
<i>Minimum</i>	12.1718	12.1718	2.0790	9.4750
<i>Maximum</i>	16.8286	16.8286	4.7993	14.4134
<i>Sum</i>	554.5498	554.5498	134.1913	447.5675
<i>Count</i>	38.0000	38.0000	38.0000	38.0000
<i>Largest(1)</i>	16.8286	16.8286	4.7993	14.4134

<i>Smallest(1)</i>	12.1718	12.1718	2.0790	9.4750
<i>Confidence Level(95.0%)</i>	0.4656	0.4656	0.2665	0.4131

The above table 1, tells that on an average, the data spread out for capital formation and gross domestic product is 14.5934. And for consumer price index and gross fiscal deficit is 3.5314 and 11.7781 and the data is divided accordingly i.e. the value of median. The data points tend to be close to the mean of the data set which is the consumer price index as it has the lowest value from all other variables. And the variance is just the square of the standard deviation, so again the consumer price index has the lowest value, following is the gross fiscal deficit and then the other variables which have the same value. Gross fiscal deficit is positively skewed and the rest of the variables are negatively skewed which tells about the degrees of symmetry. And the values of kurtosis speaks of the degree of existence of outliers in the distribution. In simple words, it is a measure of whether the data is heavily-tailed or light-tailed relative to a normal distribution. The lowest kurtosis value is gross fiscal deficit followed by consumer price index and then the other remaining variables. The lowest range of the data is the consumer price index, then comes the capital formation and gross domestic product. Therefore, the highest range of the data is of gross fiscal deficit which has value 4.9384.

Regression Statistics:

TABLE 2(a):

TABLE 2(b):

The above table 2(a) tells that the expected capital formation when the value of other variables is zero is -3.354e-08.

The expected capital formation increases by 1.000e+00 with an increase in the gross domestic product when the value of all other variables is the same. The expected capital formation decreases by 1.137e-08 with a decrease in the consumer price index when the value of all other variables is the same. The expected capital formation increases by 3.274e.-09 with an increase in the gross fiscal deficit when the value of all other variables is the same. And the value of p and the f-statistics as shown above in the table 2(b) which is 2.835e+17 and corresponding p value is less than 0.05. Therefore, null hypothesis is rejected. At least one of the regression coefficients is not equal to zero.

The test for intercept term (-2.110e-01) and the corresponding p value 0.834 > 0.05.

Hence, the null hypothesis is accepted. The test for GDP (4.919e+07) and the corresponding p value 2e-16 < 0.05. Hence, the null hypothesis is rejected which is not equal to zero. The test for CPI (-3.490e-01) and the corresponding p value 0.730 > 0.05. Hence, the null hypothesis is accepted. The test for GFD(4.720e-01) and the corresponding p value 0.640 > 0.05.Hence, the null hypothesis is accepted i.e. B3=0.

$$Capform = -3.354e-08 + 1.000e+00GDP - 1.137e-08CPI + 3.274e.-09GFD + e(I)$$

Since, the model value of R Square is one [Table2(b)]. Therefore, the model explains the 100% of total variation in the value of the response variable (Capform).

Correlation:

TABLE 3:

	Capform	GDP	CPI	GFD
Capform	1			
GDP	1	1		
CPI	0.998286	0.998286	1	
GFD	0.984133	0.984133	0.981161	1

There is a correlation among the macroeconomic variables taken into consideration for this model as shown in the above table 3. An increase in one factor will always be matched by an equal increase in the other factor. The blue color shows the positive correlation as it moves towards the value one.

FIGURE 1:



In four different methods, the diagnostic plots display residuals:

Residuals vs Fitted [FIGURE 1(a)] is employed to validate the linearity presumptions. A strong indicator of a linear relationship is when the residuals are evenly distributed around a straight axis with no obvious patterns (the red line is roughly horizontal at zero in this case). The assumption of residual normality is examined using normal Q-Q [FIGURE 1(b)]. The assumption is true if most of the residuals fall along the dashed straight line, which we can already see above in the normal Q-Q plot. To examine the homoscedasticity of residuals, employ scale-location [FIGURE 1(c)] (equal variance of residuals). The assumption is satisfied if the residuals are distributed randomly and a horizontal line with evenly spaced points is observed. Any important parameter in our dataset is found using the Residuals vs. Leverage method [FIGURE 1(d)]. Important values are extreme values that, whether included or omitted from the analysis, may have an impact on the regression results. Seek those situations that are not within a dashed line.

FIGURE 2:

Autocorrelation function (ACF) [FIGURE 2] helps to identify the order of the process. By default, the autocorrelation at lag 0 is taken into account, and it always has the value 1, indicating that the data and themselves are correlated. At the 5% level, there are three peaks that are different from zero. However,

given the deviation of the sampling from the normal distribution, this is to be expected. But none of them is significant as the spikes are not beyond the threshold line. The residuals look similar to white noise where the mean is 0, variance is constant and there is no autocorrelation.

TABLE 4:

Studentized Breusch-Pagan test	Values
BP	2.1937
df	3
p-value	0.5332

The Breusch-Pagan test, which runs an additional regression of the squared errors on the independent variables, can be used to examine residuals for homoscedasticity. We reject the null hypothesis and come to the conclusion that there is heteroscedasticity in the regression model if the p-value of the test is less than a certain threshold of significance (i.e. =.05). Since, the p-value is more than 0.05, we conclude that heteroscedasticity is not present in the regression model.

LIMITATIONS:

The annual time series data's most obvious drawback was its limited sample size, which prevented us from conducting an effective evaluation of four sub-periods. Another drawback is the small number of variables included in the analysis; many more factors, including interest rates and exchange rates, may have been employed. Since the model used to analyze the data is straightforward, additional models can be further used for the data.

CONCLUSION AND POLICY IMPLICATIONS:

This report basically examines whether capital formation and GDP are complementary, as well as the significance of the consumer price index and the gross fiscal deficit. Other factors that are and may be significant in determining the link were not taken into account in this article, such as foreign direct investment, interest rates, comparisons to other comparable economies, etc. Therefore, more empirical investigation to identify links and the significance of other factors should be taken into consideration for additional investigation and is also within the scope of this article.

Thus, we conclude that the GDP is highly significant for the capital formation. There is a positive relation between the variables. The increment in the capital formation leads to rise in the production, which increases the demand of human capital and the equipment which will further increase the overall demand of labor and employment opportunities will lead to rise in the income level. This accelerates the

pace at which the development is occurring with the utilization of resources to its full extent and the standard level of the economy increases thereby.

There is no significant impact of the consumer price index and the gross fiscal deficit. The CPI does not happen in the short run but in the long run we can see with increase in consumer price index there will be increase in the capital formation. And the gross fiscal deficit is increasing because there is an increase in the revenue expenditure, there by no increment in the capital formation. This can be seen because of other expenditures like the defense sector. The government is providing subsidies in various ways, one sided payments which leads to no taxation or tax evasion. The increased gross fiscal deficit leads to a crowding out effect and this imbalance reduces the availability of capital formation. Thus, the investment capability of an economy diminishes.

The gross domestic product is without a doubt the primary driver of capital formation from a policy perspective. In order to encourage sustained capital creation, the respective governments must implement monetary and fiscal policies that result in continuous output growth. Additionally, it is crucial for governments to identify and give top priority to those public initiatives (especially spending on infrastructure and human capital) that have the potential to aid capital formation. For instance, a strong infrastructure makes it easier to produce and distribute goods and services, whereas investing in human capital creates a workforce with the possibility of increasing productivity which results in employment generation, thereby the level of income rises.

Furthermore, additional outsourcing is required in order to eliminate any initiatives that would serve as substitutes for private investment. The funds generated through the licensing of these initiatives can subsequently be used for initiatives that assist capital formation. This will further help in the development of the economy. Consequently, it is expected that official finance will be required to close the resource deficit. External debts cannot be avoided as a result. To be more realistic, the loans should be project-specific. Furthermore, as was already said, such projects must have the capacity to improve capital investment and thus the subsequent growth.

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