Combating Covid-19 through Policy Rate management

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Abstract

The markup on domestic debt is single largest source of expenditures in the federal budget of Pakistan for last few years. These markup payments are determined by the policy rate which is decided by the Central Bank's monetary policy Committee. Lower policy rate leads to reduction in markup payments, thereby increasing the fiscal space which is necessary needed to manage a package for the relief and rehabilitation of the people affected by Covid-19. However, the State Bank of Pakistan is reluctant to cut down the policy rate due to fear of rise in inflation. This is despite the fact that some of very highly influential studies such as Gibson (1923) and Sims (1992) have found that the high policy rate is associated with high inflation. This paper shows that contrary to the assumption of State Bank of Pakistan and other central banks the higher policy rate is a cause of high inflation, not a cure. The paper shows that contrary to the common literature, the positive association between policy rate and inflation is supported by one of the oldest theory in monetary economics i.e. Tooke's Banking School theory. Therefore, the paper shows that policy rate can be reduced without the fear of inflation to create a huge fiscal space and an enabling environment for the business which is necessary to deal with the effects of Covid-19 pandemic.

Key Words: Policy Rate; Inflation; COVID19; Monetary Policy, Interest Rate.
JEL Codes: E50, E52, E58, E65

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1 Introduction

In March-June 2020, the policy rate in Pakistan was reduced a number of times to 7% from 13.25%. Despite this reduction, the current policy rate in Pakistan is still one of the highest in the world. The current policy rate in Pakistan is 7% which is 14 multiples (1400%) of the policy rate in Thailand, 28 multiples (2800%) of the policy rate in United States and 70 multiples (7000%) of the policy rate in the United Kingdom. Many countries have reduced the policy rate after the outbreak of Covid-19 pandemic and the most recent reduction in the policy rate in Pakistan is also linked to the spread of the pandemic. But as noted earlier, the policy rate is still very high compared to many developed and developing nations.

The policy rate is one of the most important ingredients of the cost of doing business and the main determinant of the markup payments on government domestic debt. Since markup payments on domestic debt are part of federal budget, the fiscal deficit is also linked to the policy rate. Higher the policy rate, higher will be the markup payments on domestic debt and higher will be the fiscal deficit.

As of May 2021, Pakistan owes a domestic debt of about PKR 25 trillion and the government has reserved PKR 2.63 trillion for the markup payments on this debt in the budget for fiscal year 2020-21. This is single largest head of expenditures in the federal budget, covering 42% of the total budget outlay. If the policy rate of United States was applicable, the markup payment for the same amount of debt should be about 62 billion only, creating a fiscal space of about 2.5 trillion. Such a fiscal space is sufficient for relief and rehabilitation of the people affected due to the pandemic and for the losses incurred to public exchequer due the pandemic. At this point, it becomes very important to investigate what is the need of keeping policy rate such a high and what are the pros and cons if the policy rate is reduced further in the wake of pandemic.

Table 1
Interest rate changes due to Covid-19 pandemic

Country	Interest Rate Before pandemic (%) December 2019	Interest Rate after pandemic (%) December 2020	Average Inflation (2015-19)	Average inflation 2020
Australia	0.75	0.1	1.7	0.8
Canada	1.75	0.25	1.7	0.7
Brazil	4.25	2.0	5.7	3.2
Thailand	1.75	0.5	0.3	-0.8
Indonesia	6.0	3.5	4.0	1.9
South Africa	6.75	5.75	5	3.2
Vietnam	6.25	6	2.6	3.2
United Kingdom	0.7	0.1	1.6	1.0
United States	2.5	0.25	1.6	1.2
Pakistan	13.25	7	5.2	9.8

The main reason for deciding policy rate as stated in the monetary policy statements of the State Bank of Pakistan is to control inflation. The underlying assumption is that higher policy rate leads to lower inflation and vice versa. But as you can see in the Table 1, many countries of the world reduced their policy rates significantly after the pandemics and the average inflation after the reduction in policy rate has been lower. For example, in Australia the interest rate and inflation for the four years before pandemic i.e. 2015-19 have been 0.75% and 1.7 % respectively. After the pandemic, the interest rate was reduced to 0.1% and with the classical assumption; this reduction should lead to higher inflation. But the statistics reveals that after the reduction in policy rate, average inflation in Australia has been much lower. Similar is the case for Canada, Brazil, Thailand and Indonesia. On the other hand, the countries who have been reluctant to cut the policy rate significantly, observed a higher inflation in 2020. For example Vietnam cut its quality policy rate only by 0.25% and unlike other countries; inflation during 2020 has been higher in Vietnam.

This motivates us to examine the rationale behind keeping high policy rate to evaluate the rational using empirical evidences. The present study is a result of these efforts. The paper finds that policy rate can be reduced without the fear of inflation, to create a huge fiscal space and an enabling environment for the businesses, which is necessary to deal with the effects of Covid-19 pandemic in Pakistan.

The rest of the article is organized as follows: after introduction section has been followed by literature review, Methodology, results and conclusion in the sections two, three, four and five respectively while the references are given at the end.

2   Background
2.1 The Rationale for High Policy Rate

The policy rate in Pakistan had been 5.75% in January 2018 and was 7.5% in August 2018, when the PTI government took charge. It was gradually increased to 13.25% by the Monetary Policy Committee of the State Bank of Pakistan. After every change in the policy rate, the Monetary Policy Committee (MPC) releases its Monetary Policy Statement, mentioning the background of his decision. In every Monetary Policy Statement, the MPC has cited the inflation expectation as the core reason of their decision.

The MPC increases the policy rate if the expected inflation is higher. This decision is based on the assumption that increasing policy rate can reduce the inflationary pressure. This expectation rests on the assumption of demand channel of monetary transmission mechanism, which says that by increasing the policy rate, the aggregate demand in the economy can be reduced which results in lower inflation.

For example, in two consecutive meetings of Monetary Policy Committee held in September 2018 and November 2018, the Committee increased the policy rate by 100 basis points and 150 basis points respectively to make it 10%. The first reason mentioned in the two monetary policy statements to justify the change is the expectation of rising inflation.

Surprisingly, in November 2019, the Monetary Policy Statements released by Monetary Policy Committee have documented that the trend of inflation is mainly driven by food inflation. Yet, the MPC used the same demand contraction policy as an attempt to control inflation. This means the Monetary Policy Committee is looking forward to reduce the demand for food items to reduce inflation. Such a policy, on one hand sounds inhumane because it expects the people to consume less food items. On the other hand, there is no causal mechanism mentioned in any monetary literature which can show that a reduction in food price inflation is possible by contractionary monetary policy. The demand contraction can work for the luxury items and the items which are purchased by taking loan from the banks. The food items are neither luxury nor purchased on credit. Therefore, it is intuitively obvious that the contractionary monetary policy should be ineffective for reducing inflation. Instead of this, the cost side effects of monetary contraction make more sense when applied to food items. Yet, the Monetary Policy Committee continued its high interest rate policy as an attempt to control inflation.

2.2 Historical Evidences and Contractionary Monetary Policy

Contrary to the textbook theory of monetary transmission and contrary to the assumptions of the central banks, the empirical literature in every period of history contains evidences of positive association between interest rate and inflation. These evidences include Gibson (1923), which was referred by Keynes as 'one of the most completely established empirical facts in the whole field of quantitative economics.' Sargent (1973) reports positive association between interest rate and inflation. However, this positive association was usually considered as a reverse relationship, i.e. higher prices leading to higher inflation. This alternative explanation gets support from Fisher Equation which says that if real interest rate is held constant, the interest rate and prices would be positively associated. One of very important study with similar findings is due to Dwyer (1984), who analyzed the relationship between interest rate and prices for a variety of sample periods for the United Kingdom such as the sample before wartime, during wartime and after wartime. His

findings support the positive association of the interest rate and prices.

However, the Nobel Laureate Christopher Sims (1992) noted that the impulse response of inflation to the changes in interest rate is positive, implying that increasing interest rate leads to an increase in inflation. This means the monetary policy could is actually counterproductive, as was already predicted by Wright Patman in his statement before US Congress that 'raising interest rates to fight inflation is like throwing gasoline on fire.'[4]

The findings of Gibson were labeled as Gibson Paradox whereas the finding of Sims was labeled as Price Puzzle, to reflect the lack of theoretical support to the observed phenomenon. But actually, the observation matches with one of the oldest theory on the relationship between interest rate and inflation. Thomas Tooke (1774-1858) who is considered as the father of monetary economics and he is the first person to write a book on the price dynamics titled 'Thoughts and Details on the High and Low Prices of the last Thirty Years (1823).' Thomas Tooke is pioneer of Banking School theory (Tooke, 1848) and this theory predicted that the relationship between interest rate and inflation should be positive. He argued that the interest rate is a part of cost of production; therefore, higher the interest rate means higher cost of production and higher equilibrium price level.

Therefore, the findings of Gibson and the others with similar findings were actually support to the theory of Tooke, but were termed as paradox because of its mismatch with the most mainstream theory known as the demand channel of monetary transmission mechanism. Later on, many economists have tried to explain the Gibson paradox and came up with 'Cost Channel of Monetary Transmission Mechanism' which sounds like a revised version of Tooke's thought.

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[4] U.S. Congress, Joint Economic Committee. Report on the January 1970 Economic Report of the President (Washington, D.C.: U.S. Government Printing Office, 1970).

Rehman (2015) and Rehman (2017) provide the evidences that in most of the countries of the world, there is either no relationship or a positive relationship between interest rate and inflation, and this observation is robust to period of study, time series length and set of control variables being used while finding the relationship. Rehman (2015) finds that in only 7% of the countries, the relationship between interest rate and inflation is negative, as predicted by demand channel of monetary transmission mechanism.

The positive association between interest rate and inflation is very clearly seen while studying the history of two variables in United States. In the US, the average inflation before the Global Financial Crisis of 2007 was about 3% and the average inflation for this period was 2.92%. To deal with the Global Financial Crisis, the Federal Reserve introduced quantitative easing program and reduced the interest rate to 0.5% and it remain at 0.5% for a long time. According to the standard demand channel of monetary transmission, such a reduction in the interest rate should bring huge wave of inflation, but it did not.

Figure 1
The interest rate and inflation in United States, 2005-2016
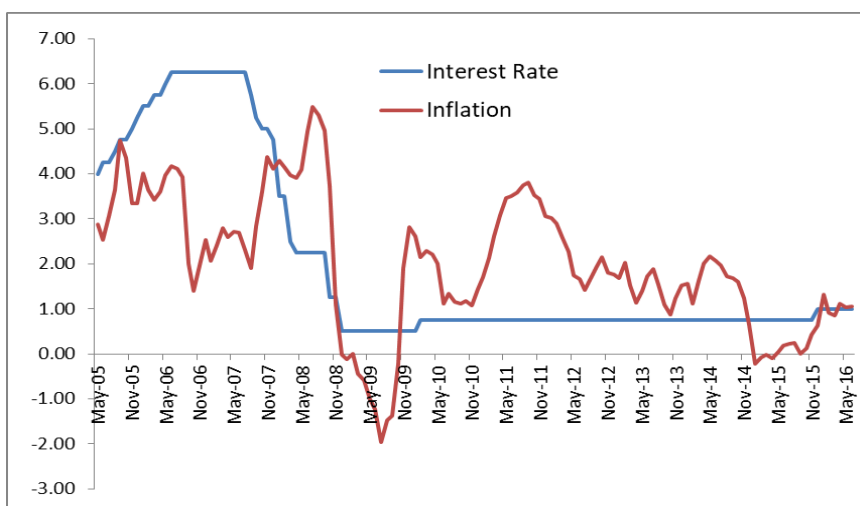
The average rate of inflation for the five years after Global Financial Crisis has been 1.86% only. In 2017-19, the Federal Reserve increased the interest rate gradually and according to the demand channel, such increase should reduce inflation. But the average inflation for 2017-19 has been on higher side, with an average of 2.1%.

The same phenomenon can be observed in the Pakistani data as well. The policy rate for the period 2008-13 averaged to about 12%, and the average inflation for this period was also close to 12%. In the Era of PML-N, the policy rate was gradually reduced and was brought down to 5.75%. The inflation also reduced and it was close to 4% in January 2018. The PTI government started increasing the interest rate again and it reached 13.25%. The inflation also increased and it reached 14% on December 2019. According to the demand channel of monetary transmission which provides basis of contemporary monetary policy, an increase in the interest rate should be associated with fall in inflation. If increase in interest rate increases inflation, this implies that the monetary policy is counterproductive.

Figure 1
The interest rate and inflation in Pakistan, 2012-2021
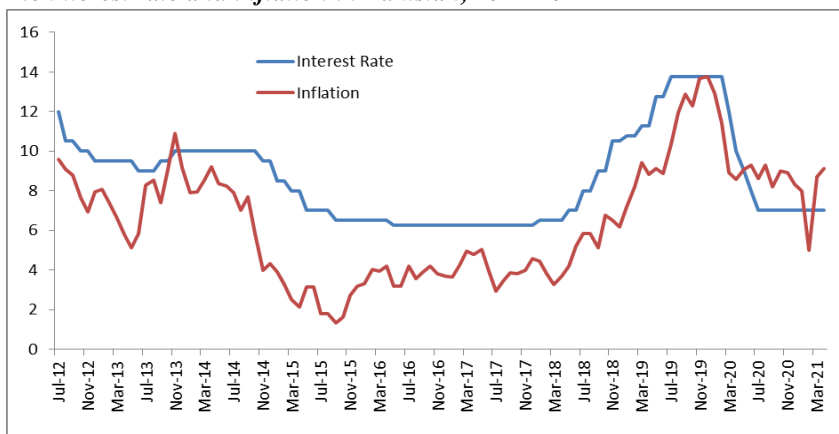
During March-June 2020, the interest rate was reduced to 7%. Under the assumption of Demand Channel of Monetary Transmission Mechanism which is the basis of inflation targeting

framework, such a reduction should increase inflation, but after this reduction in interest rate, the inflation reduced to single digit and it was recorded to be 5.7%. This shows that at least during the economic recessions, the reduction in interest rate doesn't lead to inflation.

3   Explaining the Paradox

As noted earlier, the empirical evidences in all periods of history support positive association between interest rate and inflation. The mainstream theory on the other hand, is supports the demand channel of monetary transmission. Therefore, any observation which shows a positive association of two variables has been unacceptable for the mainstream economists. Therefore, these kinds of observations were often referred as paradox or puzzle, to indicate that there is no theoretical explanation of the observation. But in fact, numerous explanations of the phenomenon exist in literature since very long. The popular theories explaining the positive association between interest rate and inflation are summarized as under.

3.1   The Cost Channel

The roots of cost channel can be traced to Thomas Tooke (1774-1853) in the form of Banking School theory. The theory says that interest rate is a part of cost of production. If the interest rate is increased, the cost of production will increase leading to higher equilibrium price level. Furthermore, if the policy rate is higher, the lending rate will also be higher which will reduce the lending to the firms and businesses. This will cause a reduction in aggregate supply leading to higher equilibrium price level.

3.2 The Fisher Equation

Though Fisher (1932) did not intend to explain Gibson Paradox, his popular equation which explains the relationship between real and nominal interest rate were used by later researchers to explain Gibson Paradox. The Fisher Equation can be written as

$$i = r + \pi$$

Here, i is the nominal interest rate, r denotes the real interest rate and π indicates the expected inflation. The Equation says that nominal interest rate is equal to the sum of real interest rate and expected inflation. If we assume the real interest rate to be fixed then changes in expected inflation will have one-one relationship with interest rate therefore increase in inflation will cause an increase in the interest rate.

This equation is basically stating the reverse causality and states that if expected inflation is increasing the interest rate will also go up. Since the common regressions are symmetric, it would not be possible to differentiate whether increase in interest rate has caused increase in inflation or vice versa. Therefore, one would usually see e a positive relationship between two variables.

Sargent (1973) explained the Gibson paradox in this way, which takes the interest rate as endogenous and the inflation as exogenous. But this equation is unable to explain the relationship when the interest rate is changed exogenously, i.e. what will happen to the inflation if interest rate is increased. Later on Nobel Laureate Christopher Sims found that impulse response of inflation to the changes in interest rate is positive. This means if interest rate is changed exogenously, the inflation will also go up. This was not explained by the Fisher Equation and nor can this be explained by the conventional demand channel of money to transmission.

3.3 The High Policy Rate is Cause of Inflation Due to Markup Payments

The markup payments on the domestic debts are usually associated with the policy rate and increase in policy rate leads to an increase in markup payments which are the part of current

budget of any government. If the market payments are increasing they will increase the fiscal deficit and to cover this fiscal deficit the government will need to impose more taxes and will need to reduce the subsidies which will cause higher inflation.

The impact of policy rate on inflation can be observed very easily. The Prime Minister, in many of his speeches, has mentioned the debt taken by the previous governments as the core responsible for the economic problems of today. However, it is important to note that the federal budget contains no allocation of the principle repayment of the domestic debt. It is only the markup payments on domestic debt which are to be paid out of the government exchequer. The markup payments are closely associated with the policy rate and higher policy rate leads to the higher markup payments. The government justifying inflation citing the debt actually means markup payments causing the inflation.

When the present government took charge in August 2018, it inherited a policy rate of 7.5%. The Monetary Policy Committee gradually increased the policy rate and it became 12.25% in May 2019. Because of this increase in policy rate, the markup payments on domestic debt also increased very rapidly and the government has to reserve 2.53 trillion for the markup payment on domestic debt. This huge burden on the national exchequer has caused the economic problems that we have seen in last 20 months. Suppose the government has reduced the policy rate back to January 2018 level, the markup payments on the current amount of domestic debt will reduce to Rs 1300 billion instead of the allocation of 2531 billion. This can save an amount of PKR 1200 billion of the public exchequers. Suppose that having this fiscal space, the government abandons to collect the petroleum development levy. The government would have to surrender 300 billion. This reduction will cause 40% reduction in the petrol price leading to a reduction in transportation cost and thereby a reduction in the prices every commodity having transportation cost. Yet, the government has another 900 billion in her hand as saving. Government can grant a reduction in taxes on food items to further reduce the aggregate price level and bring the inflation down. Therefore, it is pretty obvious that the

current exorbitant policy rate leads to a higher inflation; it is not a cure for the inflation.

4   Results of reduction in Policy Rate

Suppose the policy rate is reduced by 4%, what are the possible consequences? Here is a brief summary.

4.1   The advantages of Reduction in Policy Rate

1. As of May 2021, the short debt owed by the government is about 6000. This debt will be converted to a low markup loan in next 3-12 months and it will save about 480 billion.
2. The businesses will be able to borrow at a markup of about 7% which will boost the businesses and will increase competitiveness.
3. The banks will have less charm in investing in the government securities and will try to find customers from market, which will further boost business environment.
4. The government in recent years has introduced floating rate Pakistan Investment Bonds. The quarterly mark-up payments on these debt instruments are associated with the markup on 6 months treasury bills. If the policy rate is reduced, the markup worth hundreds of billions can be saved
5. The long term debt will gradually be converted to low markup debt and by next one year, another significant amount of long term debt will become low markup debt.
6. Availability of cheap loans will make boost the startups and the construction business and will facilitate two of the promises of the incumbent government.
7. On one hand, the reduction in policy rate will reduce fiscal deficit by reducing markup payments and on the other hand, if the money is directed to the businesses, the businesses will all be formal and will increase tax net. This will also reduce fiscal deficit and will enhance fiscal space.

4.2   The Pitfalls of Reduction in Policy Rate

There are some possible negative impacts of reduction in policy rate as well.

1. One possible negative could be the outflow of hot money invested in the government securities. But, at present, total amount of hot money is not more than $3 billion. At the time when the country has achieved the current account surplus, the outflow of hot money should not affect economy to a large extent. Furthermore, a large portion of this investment is in longer term securities, and it is not possible for the investors to withdraw this money immediately. On the other hand, if the devaluation occurs due to outflow of hot money, that will reduce the real return of the foreign investor. There is no big challenge on this front.

2. One possible negative could be that the banks may refuse to lend to government at low markup rate. This is very unlikely because banks have invested 25 trillion in the government securities and there is no alternative to earn something on this money. The banks know that a positive return is better than no return. Suppose banks reduce their lending to the government by 5%, this means an amount of 1.2 trillion would be available for lending to private sector. This means, the banks will have to find clients in market for this money. Due to multiplier effect, banks will be able to lend many multiples of this amount at a markup much lower than the existing and this will boost the businesses.

3. One possible negative impact is that cheap markup rate may provide incentive purchase of luxuries. This can be controlled by government/SBP through the prudential regulation. For example, the SBP can direct the banks to lend to charge higher markup on luxuries than the businesses.

5   CONCLUSION

The policy rate in Pakistan is one of the highest in the world even after reduction of 625 basis points during last year. The policy rate today is 28 multiples of the policy rate in United States and 14 multiples of the policy rate in Thailand. This means, lending is 28 times costly in Pakistan than in United States.

The policy rate is kept high to check reduce inflationary pressure, but there is no historical evidence to support the assumption that the high interest rate has ever reduced inflation in Pakistan. On contrary, the data shows that the periods of high interest rate are associated with high inflation.

A reduction in policy rate can save very huge amount of the national exchequers as it will reduce the markup payment burden. A part of this amount can be used to reduce taxes on necessities so that the prices of essential commodities could be controlled. The remaining can be used for directed relief and rehabilitation of the people whose business are affected by the pandemic.

The reduction in policy rate will make loans cheaper for the business; therefore, the business as well as the employment opportunities will increase.

Therefore, it is suggested that policy rate may be reduced further to 3% so that the fiscal space for Corona Combat Campaign may be created.

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