# Evaluating Experiences of Developing Countries Moving Towards Inflation Targeting: A Lesson Learning for Pakistan

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#### ABSTRACT

The main aim of this paper is to investigate how far State Bank of Pakistan is prepared enough to undertake its monetary policy operations - right from its operational target (Reserve Money) to mid term target (M2) and ultimate target CPI (consumer price index) and Real GDP (Gross Domestic product) growth) by choosing numbers of inflation sets for its annual target. In the paper three examples from Chile, Turkey and Mauritius, have been used who have adopted the system, as they seem more close to Pakistan as a developing nation. Up till 2005, SBP was using monetary aggregate as for its operational target i.e. Reserve Money, However onward, it has started using corridor arrangement where discount rate the main interest rate for Pakistan serves as ceiling for the corridor and floor is set at 300 bp below this rate. Accordingly, market is allowed to move its overnight rate within the corridor of 300 bp. In this way Pakistan has now moved from aggregate targeting to inertest rate targeting. Initially this arrangement was implicit but from 2009 onward, it has gone with this arrangement explicitly. Going forward as one would see that adoption of inflation target right from the basis is a step toward right direction, but yet Pakistan is not prepared enough to adopt inflation targeting as its operational target.

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Key words: Inflation, Chile, Mauritius, Turkey, Pakistan

#### 1. INTRODUCTION

Inflation targeting is a recent development on the block of monetary régimes that was introduced in New Zealand in 1990 (Archer 2000). The experiment proved successful, and as of 2007 more than 20 industrialized and developing countries have adopted this régime. It is characterized by an announced

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numerical inflation target and implementation of monetary policy is carried out to achieve the desired level of forecasted inflation. Hence it has also been called 'inflation-forecast targeting' with high degree of transparency and accountability (Truman 2002)

Pakistan's monetary policy is passing through the phase of transition from monetary aggregate targeting towards inflation targeting. This paper tries to highlight the issues faced by Pakistan in management of short term interest rates and would recommend solutions to overcome the problems by using experiences of some emerging economies who have adopted inflation targeting in the recent past.

The paper rests on following sections: Section 2 provides a glimpse of history of Inflation targeting. Section 3 highlights experiences of some emerging economies who have adopted Inflation targeting. Section 4 gives brief history of monetary policy régimes adopted by Pakistan during the past. Section 5 discusses the choice of operational target in the past and transition towards interest rate as an implicit/explicit operating target – the main pre-request for inflation targeting. Section 6 discusses concluding remarks with operational strategy for adopting Inflation targeting in Pakistan:

# 2. HISTORY OF INFLATION TARGETING

Pioneered by Reserve Bank of New Zealand in 1990, a number of industrial countries adopted a framework for carrying out monetary policy known as inflation targeting. Most of these central banks adopted the framework as a response to the difficulties they had encountered in conducting their monetary policy using an exchange rate peg or some monetary aggregate as the main intermediate target. The move not only helped the policy makers in controlling inflation in those countries but it also made their monetary policy more transparent and accountable (inflation Targeting around the world (Siklos 2008).

A general agreement among economists has emerged in recent years about the main target of monetary policy i.e. to attain and preserve a low and stable rate of inflation. Most of the economists agree that an increase in the money supply is not neutral in the short run whereas it is neutral in the medium-to-long run (Masson, Savastano, Sharma 1998). This means that an increase in money supply has lasting effects only on the price level as output and employment remains unaffected in the medium to long run. In other words, monetary policy has important transitory effects on a number of real variables, including output and unemployment. Another agreed preposition is that high and volatile inflation is costly, in terms of either the allocation of resources or long-run growth in output, or both. Monetary policy affects the rate of inflation with lags of uncertain duration and varying strength. These lags make it difficult, if not impossible, for the central bank to control inflation on a period-by period basis. Having agreed on these basic prepositions, a good majority of economists are of the view that inflation targeting as a framework can improve the design, implementation, and performance of monetary policy compared with other framework used by the central banks which tend to lack transparency and are difficult to understand by the general public.

Some of the major factors that would make inflation targeting a successful monetary policy régime for a country include: (i) considerable independence of the central bank in terms of target and instrument, (ii) low and stable inflation before adopting inflation targeting for gaining credibility, (iii) nonexistence or low public sector borrowing from the central bank, in other words, the conduct of monetary policy should not be dictated or constrained by purely fiscal considerations, (iv) refrain from targeting the level or path of any other nominal variable, such as monetary aggregate or the nominal exchange rate, (v) high degree of transparency, (vi) effective communication, (vii) clear understanding of transmission mechanism of monetary policy, and (viii) capability of building and use of reliable macroeconomic model(s) for improving

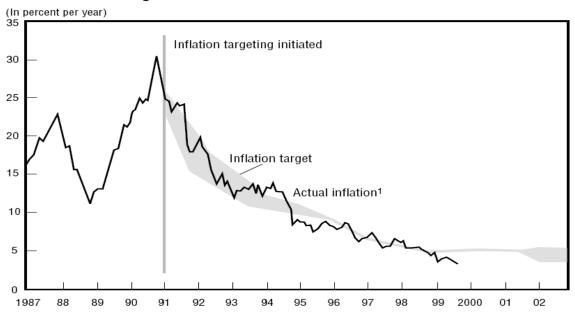
forecasting capabilities. In addition to these pre-requisites, countries like Pakistan also require frequent and effective consultation with the government for setting inflation target and removing supply side bottleneck especially of food items. Moreover, strong banking system and deep capital market are also necessary for smooth implementation of monetary policy (Masson, Savastano, Sharma 1997; Zaidi 2006).

#### 3. INFLATION TARGETING EXPERIENCE IN FEW DEVELOPING COUNTRIES

#### **3.1. Chile**

After getting independence in 1990, the Central bank of Chile has to face a considerable rise in inflation caused by expansionary policies adopted in 1989. In this context, the Central Bank tightened monetary policy and decided to adopt an annual inflation target as its nominal anchor. In the past Chile carried out two Stabilization programs (1959-62 and in 1979-82). Both were based on nominal exchange rate anchor as the main instrument for stabilization and both failed miserably. On the other hand, the use of monetary aggregates as an intermediate target would have been difficult in a country with developing financial markets and volatile money demand. The remaining choice for the nominal anchor was the inflation target. The first inflation target was announced in September 1990 for the 12 months of 1991. Since then the objective has been attained with great precision that is evident from the following graph

## Chile: Inflation Target and Actual Inflation



Source: Central Bank of Chile data.

<sup>1</sup> As measured by the consumer price index.

The main operational instrument of monetary policy in Chile is the real interest rate. From 1985 to 1995 the rate set by the Central Bank was indexed on Central Bank paper of 90 days maturity. However, since 1995 the real rate is the daily rate paid on interbank loans (the real overnight interbank rate). The Central bank publicly announces its rate. Through the conduct of open market operations, The Central Bank of Chile

guides the interbank rate towards policy objectives. Open Market operations are performed by issuing Central Bank's papers and by conducting repos and reverse repos. A program of monthly issue of Central Bank's papers is announced in advance providing markets with information about the overall stance of monetary policy that is consistent with the real interest rate. Supporting Repos and Reverse Repos are conducted during the month in order to satisfy the demand for liquidity at the policy rate of interest. Two standard facilities are also provided to the financial institutions to use them at their discretion i.e. the line of liquidity credit and the liquidity deposit window. The line of liquidity credit provides Central Bank credit to individual institutions subject to quantitative ceilings at marginal rate that rise with the amount required to three different levels. The liquidity deposit window is an open window where financial institutions can deposit their excess liquidity at a floor interest rate. Central bank mainly focuses on the gap between actual core inflation and the inflation target over the relevant 24 months policy horizon, however other key variables are also closely watched and projected i.e. gap between actual and potential output, aggregate spending income gap (or the current account deficit), output growth, the employment rate, monetary growth, wage growth, the exchange rate, the fiscal policy stance and the term structure of market interest rate (CBC).

#### 3.2Turkey

Turkey adopted Inflation Targeting (IT) after many years of high inflation and after the collapse of stabilization policies, based on a crawling exchange rate peg adopted in 2000, which ended up with the deepest crisis of Turkish history in February 2001. To overcome these crises, the Central Bank of the Republic of Turkey (CBRT) adopted IT with new laws such as Instrument Independence, clear mandate of price stability, accountability, ban on CBRT to finance public deficits and the formation of Monetary Policy Committee (MPC) that meet every month on a pre announced date. The results have been quite encouraging so far with inflation being brought down from 68.5 percent in 2001 to 9. 65 percent in 2006. Other achievements are the reversal of dollarisation from 43.1 percent in 2001 to 25 percent by 2006 and gaining credibility to a greater extent. Turkey adopted full fledged Inflation Targeting on January 1, 2006. Prior to 2006, CBRT experimented with different monetary frameworks like exchange rate and monetary aggregate targeting, however from 1<sup>st</sup> January 2006; it adopted the formal IT regime. Preconditions in this regard fulfilled were:

Floating Exchange Rate Regime

- New Central Bank laws
- Low level of Inflation and strong growth performance
- Fiscal discipline (declining debt burden, high financing surpluses and ease of fiscal dominance problem)
- Structural Reforms in the banking sector, public finance and competitive privatization
- Increased credibility (Better expectation management and convergence of expectation to the targets)
- To strengthen its monetary policy framework, the most significant step that CBRT took was the banning of Government borrowings from the Central Bank which resulted in significant decline in interest rates especially on its announcement day.

The operational framework for IT in Turkey is as follow:

Point Target i.e. 12 months percentage change in year end CPI which is jointly set with the Government. Core indices are used for forward inflation analysis and communication policy. Target horizon is set for 3 year target path in harmony with 3 year budget practices. The Central Bank also sets a symmetrical uncertainty band of 2 % points in both directions around the point target.

Base Money as Co-anchor

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- Discretionary decision making process.
- Advising role of MPC.
- No fixed decision dates.

Communication (Quarterly Monetary Policy Report and Press Releases i.e. Inflation Outlook).

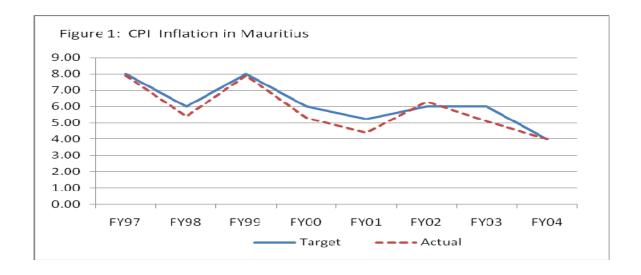
Overnight interest rate is used as the main policy instrument, which is changed in the medium term depending upon the inflation outlook and is directed towards shaping and guiding the expectations. Since calendar Year (CY) 2006 interest rate has been changed 5 times starting from 13.5 % to its current level of 17.5 % (workshop 2008).

#### 3.3 Mauritius

Since 1996, Mauritius is following monetary policy regime that is not termed inflation targeting in exclusive term but is an in-between regime that suits small economies and is termed as Inflation Targeting Lite. It shares features as (1) multiple monetary policy objectives (2) mixed operating targets and instruments including short term interest rates; exchange rate, reserve money or aggregate money (3) exchange rate interventions (4) Opaque monetary policy formulation (5) the constrained transparency of monetary policy operations and (6) emphasis on financial stability. Out of these Mauritius inflation targeting lite regime has these elements (1) Multiple purposes of monetary policy with increasing commitment to price stability as one of two primary goals of monetary policy (2) the public announcement of an annual target for aggregate (Consumer Price) inflation (3) a flexible monetary policy that includes exchange rate management (4) an integrated operational strategy in which many variables, including foreign exchange intervention are used to set the monetary policy instruments, while maintaining the managed float of the exchange rate regime and (5) relatively transparent monetary policy operations (BOM).

Prior to 1990s Bank of Mauritius (BOM) conducted monetary policy mainly through direct instruments, such as ceilings on commercial bank credit and administered interest rates. Establishment of an interbank FX market was completed in 1994 and the basket peg régime was replaced with a more flexible exchange regime. Keeping in view annual inflation close to 10% in 1989-1993, it was felt to adopt a new policy régime in place of exchange rate regime. However, a full fledged inflation targeting was not found feasible owing to the needs to intervene in to the foreign exchange market and the lack of a well developed financial sector. As a result, the BOM introduced "an Informal inflation targeting" in 1996 which is in fact is Inflation Targeting Lite regime. The result since than is evident from Figure 1.

Since no single instrument is effective in implementing this monetary policy régime, an integrated approach has been adopted. As the bond market in Mauritius is illiquid, therefore, BOM uses a mix of integrated policy instruments, as an alternate, to target short term interest rates indirectly. The BOM has increasingly relied on short term interest rates as its operational target. In the primary government bond market treasury (or BOM) Bills of 3, 6 and 12 months maturities are sold on weekly basis. The BOM varies its sales of treasury and BOM bills in the primary market auctions to implement the reserve money program and the interest rates resulting from these auctions are used as an indicator of monetary policy stance. Repos and Reverse Repos are used periodically to fine tune the reserve money program. As a lender of last resort the BOM provides Lombard facility (i.e. lender of last resort facility) where banks can borrow overnight to meet reserve requirements. The BOM mainly uses this rate to signal the monetary policy stance. The BOM also maintains some interventions in the FX market as well. The purpose of such interventions is either to target certain real effective exchange rate (REER) or to minimize the excessive volatility of exchange rate in the events of large foreign exchange turnovers (BOM).



## 2.4. Major Lessons for Pakistan from the Above Experiences

There are many important lessons from these international experiences for achieving price stability. These lessons are summarized in the following paragraphs:

## Lesson #1: Presently Pakistan is pursuing Inflation Targeting Lite

Pakistan present monetary policy framework is almost similar to one adopted by Mauritius. Hence, technically Pakistan is pursuing regime of inflation targeting Lite. Now it has to move forward to adopt exclusive inflation targeting régime.

### Lesson # 2: The Single Explicit Goal Of Price Stability Can Be Successfully Implemented:

The single monetary policy goal of price stability has been successfully implemented in a number of countries. Those countries adopting price stability goal, for example, have significantly improved their inflation performance. Specifically, they all have dramatically lowered their inflation rates since adopting targets for inflation, especially by Turkey. This evidence underscores the argument that explicit, quantifiable goals of price stability can be implemented successfully in Pakistan.

## Lesson #3: The Consumer Price Index (CPI) Can Be Used As the Inflation Target

Measurement problem make it difficult to choose the level of the inflation target. There are some issues relating to the measurement of CPI numbers. Chile, Turkey and Mauritius are using CPI as the basis of their inflation target. The biases in the calculation of CPI is viewed as being relatively minor and outweighed by the CPI's practical advantages: namely, its familiarity, ready availability, minor revisions, and convenience in communicating with the public.

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## Lesson # 4: Should there be a target band or single point target?

The purpose of an inflation target is to provide the central bank with a rule for making monetary policy decisions. Central bank may choose a point target or a target band depending on the economic environment in the country. Since economic behavior and economic developments cannot be predicted accurately, it is suggested that Pakistan may adopt a target band initially and thereafter move toward single point target.

## Lesson # 5: Eliminating or limiting government borrowing from SBP.

As is the case in Turkey, government reliance on SBP for financing its budget deficits needs to be curtailed. The Fiscal Responsibility and Debt Limitation Act 2005 provide a road map in this respect that needs to be implemented in its true spirit.

#### 4. MONETARY POLICY FRAMEWORK IN PAKISTAN

Historically, Pakistan has been pursuing monetary aggregate targeting regime. However since 2005, on adopting interest rate targeting implicitly, it can be renamed as Inflation Targeting lite. Like many central banks, SBP has used monetary aggregates as indicators in their policy frameworks. SBP has accorded a high priority to achieving a low rate of inflation. Monetary policy has also been aimed to support the national objectives of economic growth and ensuring export competitiveness of the country. However, the distorted terms of trade for most of the years in the last three decades have contravened the conduct of monetary policy, which has been geared towards the task of reconciling inflation control with external competitiveness (Zaidi 2006). Moreover, monetary policy remained subordinated to fiscal needs till the reform process took its roots. Legal framework for market-based monetary policy was altered in two-step; changes in the SBP Act were introduced in 1993 to make SBP responsible for the formulation and implementation of monetary policy. However, the loopholes in the Act of 1993 were not able to guarantee the full fledge independence of SBP; as the government continued to borrow excessively from the banking system in more or less the same manner as before under the cover of ambiguity in the relevant section of SBP Act (Janjua 2004:80-81).

The ambiguity in the legal framework was removed in the second phase of reforms in 1997 wherein it was embodied specifically in the SBP Act that:

- The Central Board of the SBP was to determine and enforce, in addition to the overall expansion of liquidity, the limit of credit to be extended by the SBP to the federal and provincial governments and their other agencies for all purposes;
- If the Federal government was to borrow additional amounts from commercial banks, it had to take into account the credit requirements of the private sector as determined by the Central Board of the SBP;
- Any such borrowings were to be made at market rates through market-based auctioning system to be conducted by the SBP.

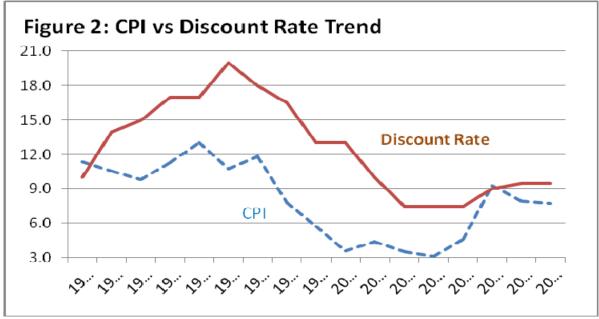
Financial Sector Reforms initiated in early 1990s provided the required framework for moving towards market based monetary policy. As stated earlier, changes in SBP Act gave independence to SBP in the formulation and implementations of monetary policy. The foremost step towards market based policy was the introduction of Open Market Operations (OMOs) in January 1995 followed by removal of caps on maximum lending rates in March 1995 and the abolition of floors on minimum lending rates for project and trade related financing in July 1997.

Pakistan moved in a phased manner in liberalization of its foreign exchange policy for the promotion of exchange rate stability. Pakistan had to abandon fixed exchange rate and moved towards managed and then to free float with a cap on its downward movement till the rupee was finally set on free float exchange rate from July 21, 2000 (Arif 2007). The recent refinement of monetary policy framework to focus on inflation modeling and control would obviously have its implications for the exchange rate regime. Being a small open economy, Pakistan needs to stabilize its exchange rate as it is generally believed that exchange rate volatility has an adverse impact on trade flows (Zaidi 2006). Exchange rate volatility leads to uncertainty, which has negative implications on both Exports and Imports. In the recent past SBP has always remained focused on the critical role of controlling real exchange rate in maintaining external competitiveness.

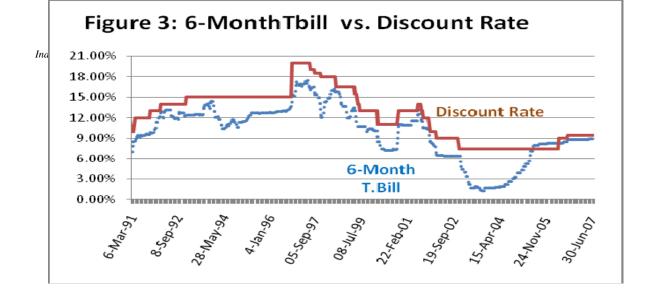
### 5. TRANSITION TOWARDS INTEREST RATE TARGETING

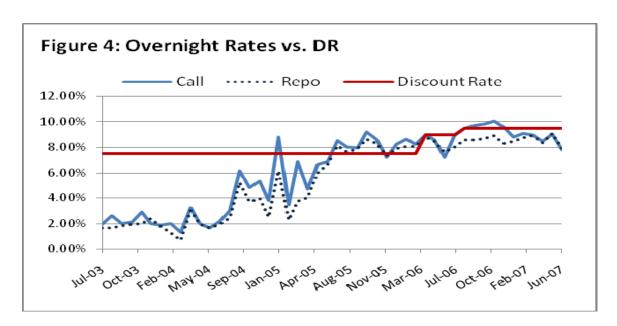
Traditionally discount rate set by the SBP was and is still considered as the main rate for guiding market about SBP monetary policy stance which has been used to check inflationary pressure. Whenever headline inflation started mounting and reached to some breakeven point with discount rate, changes in discount rate ultimately pushed the inflation numbers back to its desired level (*see Figure 2*).

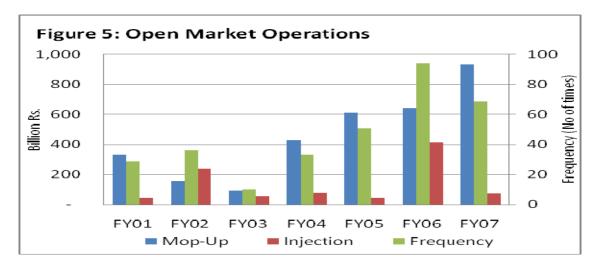
Another tool used for transmitting interest rate signal has been the MTB rates. Basically they serve the purpose of supporting Discount Rate in transmitting monetary policy stance. However, it is observed that the correlation between Discount Rate and MTBs rates got weakened during the periods of heavy foreign inflows viz: rise in reserve money. Particularly in 1994-96 and 2002-04 the spread between discount rate and 6 month MTB rates widened making Discount rate redundant (*see Figure 3*). In these periods, 6 month MTB rates gained more importance as compared to Discount rate for signaling monetary policy stance.



Source: SBP website







Data Source SBP website



On fall of MTB rates and Over Night (O/N) rates significantly in 2003-04, SBP introduced a floor for the O/N market implicitly. This facilitated O/N rates to fluctuate within a given corridor. To maintain the corridor, 3 month MTB rates and Discount rates were the natural choices for using them as the main anchors. The corridor has now been made explicit since 2009.

This shift brought some sanctity to volatility in O/N rates that were subject to move earlier within a range of 0 to discount rate. As stated above, the range even varied to more than 600 bps. By managing the rates within some corridor and curtailing the volatility in O/N rates it became easier for SBP to achieve its monetary policy objectives. The impact of the shift is evident from Figure 4 from wherein it can be observed that 2005 onward, the O/N rate (call & repos) remained close to discount rate i.e. in line with tight monetary policy stance.

Another step taken by the State Bank was the start of proactive use of Open Marker Operations. To make the operations effective it was decided to use the tool on as and when required basis. Further, their tenors were made flexible running from O/N and above. In addition, SBP also acquired its Money Market Reporting

System (MMCRS) during 2004 to capture market liquidity position on real time basis. These efforts brought positive results in managing O/N rates within the desired corridor and in creating perception of interest rate stability. This environment helped Debt Management efforts in diversification of Sovereign domestic debt portfolio from short to long end of the yield curve. Figure 5 depicts increase of OMOs frequency since 2005 onward. However, in 2007 in spite of increase in volume of mop ups, OMOs frequency declined as compared to 2006 showing better market efficiency in response to SBP market interventions.

Managing interest rate within a corridor has been achieved by implicitly targeting short term rates. However there is a need now to announce the floor explicitly to curb speculations in the O/N market, some time happening due to seasonal factors or on receipt of unanticipated cash flows.

#### 6. CONCLUDING REMARKS

The final or concluding comments have been divided in to areas of importance and operational strategy for adoption of Inflation Targeting in Pakistan.

## 6.1 Legal Framework

As discussed earlier, with financial sector reforms in place, SBP was granted operational autonomy with its Board of Directors empowered to determine and enforce the credit limit of Federal and Provincial governments in accordance with real GDP growth, inflation and balance of payment targets in consistent with overall macroeconomic framework. Section 9A of the State Bank of Pakistan Act gives enforcement power to SBP, implying that the State Bank of Pakistan can decline to the Government in access of the limit prescribed by its Central Board (Arif 2004).

However, there is a need to reconstitute and empower Monetary Policy Committee (MPC) through legislation for taking decision on implementation of monetary policy. MPC members may include, besides members from SBP, retired members (with no active role/interest in business) from financial sector and academia. MPC should meet every month or so at a pre announced date.

#### 6.2. Measurement of Inflation

In Pakistan Consumer Price Index, CPI basket consists of 374 items including food items having around 40 % weight in total CPI and coverage of 35 cities/towns across Pakistan. The data is sub-divided because of different income groups starting from up to Rs. 3000, Rs. 3001-5000, Rs.5001-12000 and above Rs. 12000. There are different dimensions of inflation as reported in SBP's monthly Inflation Monitor. They include year-on-year, period average, 12-month moving average, and monthly inflation.

While moving towards inflation targeting, there is a need to enhance transparency and credibility of inflation figures. It is a general belief amongst public that inflation figures are understated. Additionally, given the literacy rate in Pakistan, we need to simplify reporting inflation figures and concentrate on only one dimension, which reflects the most accurate measure of inflation. We also need to explicitly state the definition of inflation as target i.e. the one, which is easily understood by common person. Sub-division of inflation figures on the basis of income group also requires a revisit. With an increase in nominal income (average) in Pakistan over the last six years or so, the base period requires to be modified before adopting inflation targeting.

In the recent past, inflation has been mainly caused by supply bottlenecks in Pakistan. The credibility of central bank is jeopardized in inflation targeting countries where supply of essential items especially food items are disrupted. Solid administrative measures are needed to ensure availability of essential items. To achieve this goal, better forecasting capabilities are of extreme importance at the government level to accurately determine demand, supply gaps of various food items on monthly basis, and arrange for the shortfall well in advance.

# 6.3. Liquidity Forecasting

The liquidity management is the core business of any central bank and in inflation targeting it has its due role. Operationally, excess/short liquidity in the market is always defined as the banks current account balances in excess or short of Cash Reserve Requirement (CRR) and is considered as a barometer of liquidity in the market. Its estimation can be done either through using econometric models or by simple estimation considering interbank cash flows. Estimation of liquidity through use of Econometric models has not proved successful even in developed economies. Hence, it is not likely to bring any result in country like Pakistan where data is not readily available and remain subject to change. As regards simple estimation, it can be done precisely in coordination with Ministry of Finance (MOF)/DPCO. To that effect, MOF/DPCO has to streamline line their cash management, debt strategy and annual borrowing plan. Moreover, MoF/DPCO is also required to incorporate its foreign inflows/out flows in government accounts for better cash flow projections. Averaging period for maintenance of CRR is also a factor that plays a role in liquidity management. In Pakistan, averaging against CRR is required on weekly basis but in most of the economies they are 14 days or above. Going with international practices, it is suggested to extend the same to 14 days. This would align reserve-averaging period with Market Treasury Bills (MTB) auctions held on fortnightly basis. It would help in curtailing volatility in O/N market and result in better liquidity management.

## 6.4. Separation of Debt Management from Monetary Management

The premise for separation of the Debt Management from Monetary policy is highly important for adoption of inflation targeting regime as it would provide clear objective of achieving accountability and responsibility in respect of Debt Management. However, keeping ground realities in view the same can only be achieved by fulfillment of following preconditions.

- o Capacity building of Debt Policy Coordination office (DPCO) in MOF i.e. the DPCO to acquire requisite skills and systems.
- o Predictability in Government of Pakistan (GOP) cash flows. This can be achieved once MOF/DPCO streamlines their cash flow management, Debt Strategy, Annual Credit Plan and make its cash flow projections available to SBP.
- o Clear role and function of the Debt Management Office to be defined for clear accountability and responsibility. Presently even the "Fiscal Responsibility and Debt Limitation Act" does not define any role for Debt Management to DPCO. It merely talks of coordination and reporting.

## 6.5. Government Borrowing Plan

To obtain desired results from inflation targeting regime, it is important that government borrowing should be kept within the set targets. For this GOP has to draw its plans favorably on annual basis without jeopardizing overall system of Monetary and Fiscal Management. In this regard, following preconditions are important:

- Monetary Financing (GOP borrowing from SBP) should be totally eliminated or limited to 10% of Tax Revenues for the initial year(s) and thereafter may be totally eliminated in a phased manner during next 5 years.
- GOP may announce annual auction calendar for all auction based instruments (MTBs & PIBs) at the time of announcing its annual budget.
- Transparent Rules may be put in place to ensure market pricing in auction decisions. In this regard rules can be framed for guaranteeing acceptance of at least 75% of the maturity target/maturity, and acceptance of full target on quarterly/annual basis.

#### 6.6. Market Operations

Under Inflation targeting regime, SBP's market operations requires some adjustments. Progress has already been made in this regard by making OMOs flexible vis-à-vis direction, tenors and frequency. However, main reliance on this tool with no GOP borrowing from SBP would pose the question of non-availability of instruments to be used for OMOs. In this respect international experience provides three options i.e. either to issue SBP own instruments or to exploit the concept of Market Stabilization Funds or to provide Standing Facilities to the market. As regards SBP's own instrument, an idea was floated in 2003 for issuance of 28 days Certificate of Deposit. Since SBP Act is not very generous to allow such idea, hence, the concept of SBP CD was countered on legal grounds, so for moving forward in this regard, amendments in SBP Act have to be made. Further, the idea of Central Bank's own instruments is not well supported worldwide as on the one hand it affects Central Banks balance sheet and on the other it creates market segmentation. Another choice is the Standing Facilities, which provide an avenue for the banks to place their funds with the central bank at its floor rates. This facility is also not recommended for Pakistan as it is relatively less flexible as compared to OMOs which suits SBP to carry out its monetary operations with precision. Regarding the third option of Market Stabilization Fund, it requires GOP to empower SBP to create 3 month T-Bill exclusively for conducting OMOs. The receipts of these funds would be kept in a separate account not available to GOP for spending. This arrangement would not tend to create Reserve Money where as on the other hand GOP, would bear the cost of sterilization. The idea is being successfully implemented in India where Federal Government discloses the cost of Market Stabilization Fund in its annual budget to make the sterilization process absolutely transparent. For Inflation targeting regime, it is recommended to rely on OMOs by adopting concept of Market Stabilization Fund for managing explicit corridor in the initial year(s) and then to move towards single point target at later stage.

## 6.7. Transmission mechanism of monetary policy

Central banks cannot control inflation directly with the instruments at their disposal, such as interest rate and reserve requirements. Instead, they need to assess the various channels by which monetary policy affects prices and output in the economy – the transmission mechanism

The transmission mechanism of monetary policy is concerned with the relationships between changes in the supply of money and the level of real income (output). There are several channels through which changes in money supply affects output. The relative strength of these channels varies from country to country depending on the state of its financial markets.

In Pakistan, the traditional interest rate channel accounts for more than 40 percent of the output effect after two years. The empirical findings of a study on the subject also points towards a role of banks through

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lending to private sector which affects aggregate spending (For detailed discussion on the effects of other channels such as credit channel and assets price channel in detail, please see "Transmission Mechanism of Monetary Policy in Pakistan" published in SBP Research Bulletin 2005). Going forward, there is a need to work on strengthening the transmission mechanism by (a) further strengthening the banking sector, and (b) further developing the market and providing long-term yield curve through providing adequate supply of long-term papers to the market on regular basis.

# 6. 8. Operational Strategy for Adoption of Inflation Targeting In Pakistan

As evident from the Figure 6, Pakistan can be categorized in the countries where high inflation has remained a matter of concern. However, in its evolution of monetary policy operations i.e. from direct controls to indirect controls and then to free float exchange rate régime and then finally to implicit interest rate targeting, the core objective of keeping the inflation numbers at some desired level has not been a achieved to the satisfaction. To target a single variable instead of multi variables i.e. monetary aggregates/nominal exchange rate suits Pakistan to tame its inflationary environment.

With experience of managing O/N rate within some desired corridor, it has become easy for SBP to move forward towards adopting Inflation Targeting where explicit corridor or single point O/N rate have to be targeted.

The issues to be sorted for adopting this regime include:

- Legal Issue i.e. empowerment of MCP to make it a decision making body through amendments in SBP Act.
- Credible CPI numbers: SBP in consultation with Federal Bureau of Statistics needs to revisit the definition and working methodology of compiling CPI numbers to enhance its credibility.
- Capacity building in inflation forecasting using Vector Auto Regressions (VAR) models and/or some other method(s).
- Government annual borrowing plans with emphasis to move from short end of the yield curve to long end and phased elimination of Government borrowings from SBP.
- SBP Memorandum of Understanding with GOP to use Market Stabilization Fund concept for sterilization/market intervention.
- Separation of Debt Management from Monetary Management.
- Dissemination of analytical 'Inflation Report' instead of Inflation Monitor.
- MOF/DPCO coordination with SBP on Government cash flow projections.
- Averaging period of CRR to be enhanced at least to 14 days.
- Operational target for Monetary Policy Operations be set as a corridor by using discount rate/3-month MTB weighted average rate as the main anchors and later on move towards single point target.
- The adoption of preconditions for such a framework is in process; however, they are necessary for improving the monetary and inflation performance of the country. It may take some time to earn sufficient efficiency to anchor expectations for low inflation, nevertheless adoption of Inflation Targeting as a policy régime is a step in the right direction.

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