

## ***Concluding Remarks***

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The theme of this conference was “Monetary-Cum-Exchange Rate Regime: What Works Best for Emerging Market Economies?” The conference call expressed the hope that the papers would touch upon three competing viewpoints:

1. Greater exchange rate flexibility removes any fear of a currency crisis and an inflation targeting regime that involves a flexible exchange rate should work best for emerging market economies.
2. Greater exchange rate flexibility causes its greater variability which is disruptive in developing countries, and thus an “exchange rate targeting” monetary policy is more appropriate.
3. Emerging markets need to focus on the virtues of good governance and the establishment of credible fiscal, monetary, and financial institutions over and above any particular strategy or regime.

It was also expected that debate on these arguments in the context of Pakistan’s economy occurring in the conference would benefit the State Bank of Pakistan’s (SBP’s) forward-looking strategy.

I believe all three arguments came up and this expectation has been met. And, therefore, the conference has been very successful. In my concluding remarks, I would like to highlight the issues that the papers have discussed and the results that have been obtained, focusing in particular on ways in which these results can perhaps help further improve the policy analysis at the SBP. I confess that I feel somewhat uneasy with this role. It reminds me a little bit about the argument I used to make to my students who were always pressing for a review session that if we could review all the important material in one class why did we need the whole semester? But I always did end up doing the review session and will attempt to forge ahead here as well.

The papers in this conference have dealt with six major issues:

1. What type of interest rate rules might be appropriate?
2. Exchange rate flexibility versus exchange rate stability

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3. Is inflation targeting the best practice for emerging market economies?
4. Determinants of inflation
5. Is the money supply endogenous?
6. Importance of improving institutions

Of course, these issues are very interrelated. If interest rates should respond to exchange rate changes, you would be arguing that some stability of exchange rates is desirable. If you want to target inflation you would find it desirable to have a model to forecast inflation and, hence, the determinants of inflation would be relevant. Whether or not you follow an interest rate rule affects whether or not money supply is endogenous. And, so on.

Ehsan Choudri's paper investigated interest rate rules in a stochastic dynamic general equilibrium model and in particular asked whether more vigorous inflation targeting in which the central bank cares about exchange rate variability as well would create a tension between achieving the inflation target and stabilizing the exchange rate. His answer was that it depends on the nature of the shocks hitting the economy. One implication for future research coming out of his paper is to conduct an empirical analysis of the relative importance in Pakistan of the three shocks he considers—namely an interest rate parity shock, a traded goods productivity shock, and an export demand shock. Perhaps extending his analysis to include other types of shocks may also be desirable.

Hamza Malik's paper complemented Professor Choudri's paper. He argued that the model itself should be allowed to determine what the quantitative targets for inflation, exchange rate, etc should be and what weight, if any, should be given to exchange rate variability in the central bank's loss function. His conclusion from using a new open economy macroeconomic model, in which there is incomplete risk sharing because of incomplete asset markets, was that policy should respond to exchange rate changes, but not completely stabilize the exchange rate either. Thus, a managed or dirty float is the optimal policy. Versions of new open economy macroeconomic models are being increasingly applied to various emerging market economies to get insights about monetary policy issues and it is hoped that Hamza's paper will encourage this practice for Pakistan as well. One specific place to begin would be, suggested in the discussion following the paper presentation, to see how robust the results are to incorporating non-traded goods and fiscal variables.

This is a good point to say a few words about what types of models should be used to conduct monetary policy analysis. Governor Ishrat alluded in his keynote address to the many structural changes that have taken place in the economy in

recent years and how this makes policy analysis difficult due to the famous “Lucas critique,” which argues that if you change rules of the games through structural changes, past relationships between economic variables may not be a good guide to what would happen in the future. The dynamic general-equilibrium (DGE) models have the advantage that they are not prone to the Lucas critique, which is partly why they are being used more and more in policy analysis. But they cannot be substituted completely for traditional economic analysis either. This is because while they might tell you that a particular variable or a particular shock might *potentially* be very important, they would not tell you if in fact this was so in the real world.

So you need a marrying of the two approaches—the DGE models and conventional empirical analysis. For example, you might estimate actual interest rate reaction functions using data and then put these in your DGE models. For this, of course, you will need measures of the output gap for Pakistan, which requires estimates of potential growth and that is another crying need for Pakistan’s economy as well as working on getting a quarterly GDP series which most countries of the world now have.

Coming back to the conference papers, using a completely different approach of a structural VAR and for different reasons perhaps than in Hamza’s paper, my paper with Iffat Ara and Kalim Hyder also argued that the empirical results do not support the case for a rigidly fixed exchange rate for Pakistan. The absence of common shocks with potential anchor currency countries, the importance of remittance shocks, no strong evidence of a gain in monetary policy credibility from fixing the exchange rate, and the stabilizing influence that exchange rate flexibility can have on the trade balance were some of the results supporting this argument. However, at the same time we found that exchange rate flexibility may destabilize output because of the contractionary effects of currency depreciation on domestic demand.

Interestingly, Aasim Husain’s paper, by applying a template he has developed at the IMF to Pakistan’s case also concluded that a currency peg is not advantageous for an economy with Pakistan’s features and that increased exchange rate flexibility could improve Pakistan’s economic performance. He based this on the findings that Pakistan’s economic integration with other countries is relatively low, exports are not very diversified, there is high vulnerability to terms of trade shocks, the relative importance of nominal shocks is low compared with real shocks, and in terms of a history of high inflation the country’s ranking is in the middle range among a large number of countries. However, consistent with the contractionary devaluation results of my paper with Ara and Hyder, Husain also

found that exchange rate depreciations are positively correlated with slower activity in Pakistan, which leads to the presence of some “fear of floating.”

Iqbal Zaidi rejected a currency peg as a desirable option for Pakistan’s economy as well, for essentially the same arguments that Aasim Husain’s paper does. Given that, he also discussed the choice between three alternative monetary policy frameworks—monetary targeting, nominal income targeting, and inflation targeting. Monetary targeting was not considered appropriate because of an unpredictable relationship between money and nominal income and instability in the demand for money. Zaidi came out in favor of inflation targeting at least as an option to give serious consideration to. This was based on the argument that Pakistan does not suffer from fiscal dominance (the IMF’s score on institutional independence notwithstanding), that the financial system has shown significant improvements in recent years, and that although capital markets may be shallow compared to many countries still, they have been growing rapidly.

Ahmed Khalid’s paper also concluded that this might be a good time to seriously consider switching to an inflation targeting regime in Pakistan. This is because Pakistan has made significant progress in several areas—providing autonomy to the central bank, privatization of commercial banks, building up foreign exchange reserves, development of domestic bond market, and launching of bonds in the international market. High domestic and international debt and high budget deficits remain areas of concern and Pakistan does not satisfy all the preconditions for inflation targeting. However, Khalid argued that the experience of some emerging market economies suggests that it may not be necessary to strictly satisfy all the so-called preconditions and that Pakistan’s economy is in better shape than some other emerging markets that have switched to inflation targeting.

However, there appears to be disagreement on this issue which came out in the floor discussion, as well as in the papers by Ather Akbari and Wimal Rankaduwa and by M. Aslam Chaudhry and Munir Choudhary. Both papers argued against the adoption of inflation targeting on the ground that import prices are a major determinant of inflation in Pakistan, rather than monetary policy, which has a negligible effect in the Chaudhry and Choudhary paper and a bigger but still relative low effect in the Akbari and Rankaduwa’s paper.

The inflation targeting literature, including the papers presented here, brings out the importance of having a good model of the determinants of inflation. Not only do you need such a model to help you decide whether a country should adopt an inflation targeting regime, you also need it to forecast inflation so that it can be compared to the target inflation and corrective action can be taken if the forecast is

not in line with the target. Besides the two papers that argue against inflation targeting, one other paper at this conference, namely the paper by Mohsin Khan and Axel Schimmelpfennig, also modeled the determinants of inflation in a small-scale but quite neat model. They found that although changes in the wheat support price are an important short-run determinant of inflation, they are not so in the long run and that monetary factors have played the dominant role in the recent inflation since 1998, although their effects occur with about a 12-month lag.

With different researchers reaching different conclusions on the role of monetary factors in driving inflation, it is important for future research to sort out the source of these differences. Is it the sample period? Or the approach followed? Or, is it something else?

Irrespective of what exchange rate regime and what monetary regime you follow, you need to know what the long-run equilibrium real exchange rate is and how far you are from it. Unfortunately, there is no widely accepted model of an economy's long-run real exchange rate. Some compare the current exchange rate to a sample average or a trend (either simple or more sophisticated statistical trends) value to compute the misalignment. Others use the Balassa-Samuelson property and relative productivities to model the equilibrium real exchange rate. Zulfiqar Hyder and Adil Mahboob estimated an equilibrium real effective exchange rate for the Pakistan's economy as a function of terms of trade, trade openness, net capital inflows, relative productivity differential, government consumption, and workers remittances. The results indicate that currently the real exchange rate is not far from its equilibrium value. Given no settled model for the real exchange rate, it would be important to consider alternative approaches and check robustness. A good start in this direction can be made by following the discussant's suggestions.

Here, I would like to say something about cointegrating tests, since they are widely applied in studies of Pakistan's economy both at the SBP and elsewhere. With the time span of data we have for Pakistan's economy, about 30 years at most, there is a real question about the power of these tests. If you have a strong prior that cointegration exists, you can estimate the relationship using various techniques, but it would be difficult to test for the presence or absence of cointegration. Moving to monthly data does not help in this regard. Even if monthly data gives you more observations and more variability in the data, this variability influences the short run dynamics and does not speak to whether a long run cointegrating relationship exists or not. So some caveats should be given when such tests are done for emerging market economies.

Turning to the issue of endogeneity of money supply, in new Keynesian models with interest rate rules, money supply would be expected to be endogenous and that is what Fareed Ahmed and Naved Ahmad found in their paper using Granger-causality tests. Moreover, they have an interesting distinction about whether the monetary endogeneity is accommodative, structuralist, or of the liquidity preference variety. Another cautionary remark here about Granger causality tests—these tests examine statistical causality, using the idea of what moves first. And that is no doubt a necessary and interesting characterization of the data, but it should not be confused with economic causality, especially in models in which expectations of future variables feed back into current decisions. A well-known famous example from outside of economics may help drive home this point—Christmas cards precede Christmas, but they do not cause it!

Finally, Governor Ishrat's keynote address, presentation by Pervez Tahir, and some of the floor discussion underscored that there is no substitute for improving institutions and for structural reforms. If bad shocks hit the economy and if institutions and policies are weak, the adverse effects of these factors will manifest themselves somewhere, somehow, irrespective of the particular regime being followed. Similarly, if there are good shocks and policies and institutions improve, the beneficial effects will show. This would seem to be difficult to argue with.

So does that mean that there is nothing to debate about with respect to inflation targeting, for example? I would say the answer is "No". There is still a debate, which is whether you can use inflation targeting as an indicator, backing up your other measures, to signal that you are serious and mean business and thus change expectations about policy changes faster than would be the case without the inflation target. That kind of role inflation targeting for Pakistan's economy perhaps should be studied more.

To sum up, the debates the papers in this conference focused on are by no means settled questions. This conference has been useful in framing these debates in the context of Pakistan's economy, which one hopes will lead to much fruitful future research. Research conferences at central banks all around the world have proven to be essential in enhancing the quality of policy analysis, and I hope that conferences like the present one will become an annual feature at the SBP. Let me, therefore, conclude by congratulating the organizers on behalf of all the participants for a very fine conference.