Round Table Inflation Targeting



INFLATION TARGETING 2

ROUND TABLE

Tirana, Albania 7-8 December, 2006

CONTENTS

Foreword	7
Speech Fatos Ibrahimi, First Deputy Governor of the Bank of Albania	11
The IT Case in Albania A Tentative Road-Map for Implementing IT in Albania Erald Themeli, Deputy Director of Monetary Policy Department, Bank of Albania; Gramoz Kolasi, Director of Monetary Policy Department, Bank of Albania	15
Comments on: The IT Case in Albania A Tentative Road-Map for Implementing IT in Albania Marko Škreb, Former Governor of the Croatian National Bank	39
Comments on: The IT Case in Albania A Tentative Road-Map for Implementing IT in Albania David G Mayes, Bank of Finland and University of Auckland	51

Comments on: A Macro Econometric Model Approach for Albania David G Mayes, Bank of Finland and University of Auckland Comments on: A Macro Econometric Model Approach for Albania Gülbin Şahinbeyoğlu, Deputy Director, Research and Monetary Policy Department at the Central Bank of the Republic of Turkey The Portfolio of Econometric Models for Inflation Forecasting at the Bank of Albania Evelina Çeliku, Diana Shtylla, Gent Hashorva, Rajna Hoxholli, Monetary Policy Department, Bank of Albania; Vasilika Kota, Research Department, Bank of Albania 1 Comments on: The Portfolio of Econometric Models for Inflation Forecasting at the Bank of Albania Ronald Albers, Directorate General for Economic and Financial Affairs of the European Commission 1 Comments on: The Portfolio of Econometric Models for Inflation Forecasting at the Bank of Albania Ronald Albers, Directorate General for Economic and Financial Affairs of the European Commission 1 Comments on: The Portfolio of Econometric Models for Inflation Forecasting at the Bank of Albania Bill Allen, Senior Economist, Brevan Howard Asset Management LLP and Former Director of the Bank of England 1 A Proposal for the Inflation Targeting Communication Strategy of the Bank of Albania Ina Kraja, Director of the Foreign Relations, European Integration and Communication Department; Erinda Nervaj and Rigers Kaso, specialists at the Foreign Relations, European Integration and Communication Department; Erinda Nervaj and Rigers Kaso, specialists of the Soreign Relations, European Integration and Communication Department; Erinda Nervaj and Rigers Kaso, specialists at the Soreign Relations, European Integration and Communication Department; Erinda Nervaj and Rigers Kaso, specialists of the Soreign Relations, European Integration and Communication Department; Erinda Nervaj and Rigers Kaso, specialists at the Soreign Relations, European Integration and Communication Department; Erinda Nervaj and Rigers Kaso, specialists of the Soreign Relations, European Integration and Communication Depart	A Macro Econometric Model Approach for Albania Elona Dushku, Vasilika Kota and Gëzim Binaj, Research Department, Bank of Albania	59
Comments on: A Macro Econometric Model Approach for Albania Gülbin Şahinbeyoğlu, Deputy Director, Research and Monetary Policy Department at the Central Bank of the Republic of Turkey The Portfolio of Econometric Models for Inflation Forecasting at the Bank of Albania Evelina Çeliku, Diana Shtylla, Gent Hashorva, Rajna Hoxholli, Monetary Policy Department, Bank of Albania; Vasilika Kota, Research Department, Bank of Albania Comments on: The Portfolio of Econometric Models for Inflation Forecasting at the Bank of Albania Ronald Albers, Directorate General for Economic and Financial Affairs of the European Commission Comments on: The Portfolio of Econometric Models for Inflation Forecasting at the Bank of Albania Bill Allen, Senior Economist, Brevan Howard Asset Management LIP and Former Director of the Bank of England 1 A Proposal for the Inflation Targeting Communication Strategy 1 A Proposal for the Inflation Targeting Relations, European Integration 1 A Proposal for the Foreign Relations, European Integration 1 A Communication Department; Erinda Nervaj and Rigers Kaso, 3 specialists at the Foreign Relations, European Integration and 1 Margia, Director of the Foreign Relations, European Inte	Comments on: A Macro Econometric Model Approach for Albania David G Mayes, Bank of Finland and University of Auckland	87
The Portfolio of Econometric Models for Inflation Forecasting at the Bank of Albania Evelina Çeliku, Diana Shtylla, Gent Hashorva, Rajna Hoxholli, Monetary Policy Department, Bank of Albania; Vasilika Kota, Research Department, Bank of Albania Comments on: The Portfolio of Econometric Models for Inflation Forecasting at the Bank of Albania 1 Comments on: The Portfolio of Econometric Models for Inflation Forecasting at the Bank of Albania 1 Ronald Albers, Directorate General for Economic and Financial Affairs of the European Commission 1 Comments on: The Portfolio of Econometric Models for Inflation Forecasting at the Bank of Albania 1 Comments on: The Portfolio of Econometric Models for Inflation Forecasting at the Bank of Albania 1 Affairs of the European Commission 1 Comments on: The Portfolio of Econometric Models for Inflation Forecasting at the Bank of Albania 1 Bill Allen, Senior Economist, Brevan Howard Asset Management LLP and Former Director of the Bank of England 1 A Proposal for the Inflation Targeting Communication Strategy of the Bank of Albania 1 Ina Kraja, Director of the Foreign Relations, European Integration and Communication Department; Erinda Nervaj and Rigers Kaso, specialists at the Foreign Relations, European Integration and Communication Department; Doriana Lama, Head of the Financial Markets Office of the Monetary Policy Department and Marga Peeters, Resident IMF Monetary Policy Advisor	Comments on: A Macro Econometric Model Approach for Albania Gülbin Şahinbeyoğlu, Deputy Director, Research and Monetary Policy Department at the Central Bank of the Republic of Turkey	95
Comments on: The Portfolio of Econometric Models for Inflation Forecasting at the Bank of Albania Ronald Albers, Directorate General for Economic and Financial Affairs of the European Commission 1 Comments on: The Portfolio of Econometric Models for Inflation Forecasting at the Bank of Albania Bill Allen, Senior Economist, Brevan Howard Asset Management LLP and Former Director of the Bank of England 1 A Proposal for the Inflation Targeting Communication Strategy of the Bank of Albania Ina Kraja, Director of the Foreign Relations, European Integration and Communication Department; Erinda Nervaj and Rigers Kaso, specialists at the Foreign Relations, European Integration and Communication Department; Doriana Lama, Head of the Financial Markets Office of the Monetary Policy Department and Marga Peeters, Resident IMF Monetary Policy Advisor 1	The Portfolio of Econometric Models for Inflation Forecasting at the Bank of Albania Evelina Çeliku, Diana Shtylla, Gent Hashorva, Rajna Hoxholli, Monetary Policy Department, Bank of Albania; Vasilika Kota, Research Department, Bank of Albania	107
Comments on: The Portfolio of Econometric Models for Inflation Forecasting at the Bank of Albania Bill Allen, Senior Economist, Brevan Howard Asset Management LLP and Former Director of the Bank of England 1 A Proposal for the Inflation Targeting Communication Strategy of the Bank of Albania Ina Kraja, Director of the Foreign Relations, European Integration and Communication Department; Erinda Nervaj and Rigers Kaso, specialists at the Foreign Relations, European Integration and Communication Department; Doriana Lama, Head of the Financial Markets Office of the Monetary Policy Department and Marga Peeters, Resident IMF Monetary Policy Advisor 1	Comments on: The Portfolio of Econometric Models for Inflation Forecasting at the Bank of Albania Ronald Albers, Directorate General for Economic and Financial Affairs of the European Commission	131
A Proposal for the Inflation Targeting Communication Strategy of the Bank of Albania Ina Kraja, Director of the Foreign Relations, European Integration and Communication Department; Erinda Nervaj and Rigers Kaso, specialists at the Foreign Relations, European Integration and Communication Department; Doriana Lama, Head of the Financial Markets Office of the Monetary Policy Department and Marga Peeters, Resident IMF Monetary Policy Advisor	Comments on: The Portfolio of Econometric Models for Inflation Forecasting at the Bank of Albania Bill Allen, Senior Economist, Brevan Howard Asset Management LLP and Former Director of the Bank of England	145
	A Proposal for the Inflation Targeting Communication Strategy of the Bank of Albania Ina Kraja, Director of the Foreign Relations, European Integration and Communication Department; Erinda Nervaj and Rigers Kaso, specialists at the Foreign Relations, European Integration and Communication Department; Doriana Lama, Head of the Financial Markets Office of the Monetary Policy Department and Marga Peeters, Resident IMF Monetary Policy Advisor	151

Comments on: A Proposal for the Inflation Targeting Communication Strategy of the Bank of Albania Gülbin Şahinbeyoğlu, Deputy Director, Research and Monetary Policy Department at the Central Bank of the Republic of Turkey	193
The Improvements in the Statistical Framework for Inflation Targeting in Albania Hilda Shijaku, Head of Financial Statistics Division at the Statistics Department; Kliti Ceca, Director of the Statistics Department and Evis Ruçi, Head of Balance of Payments Division, Statistics Department	203
Comments on: The Improvements in the Statistical Framework for Inflation Targeting in Albania Henning Ahnert, Head of Section General Economic Statistics, European Central Bank	247
Comments on: The Improvements in the Statistical Framework for Inflation Targeting in Albania Bill Allen, Senior Economist, Brevan Howard Asset Management LLP and Former Director of the Bank of England	263
The Future of the Monetary Policy Report within an Inflation Targeting Framework Diana Shtylla, Head of Economic Division, Monetary Policy Department, Bank of Albania and Erjona Suljoti, Head of Monetary Office, Monetary Policy Department, Bank of Albania	y 269
Comments on: The Future of the Monetary Policy Report within an Inflation Targeting Framework David G Mayes, Bank of Finland and University of Auckland	291
Coordination between the Central Bank and the Ministry of Financ under Inflation Targeting Erjon Luçi, Director, Research Department, Bank of Albania;	e

Marian Gjermeni, Director, Monetary Operations Department and Anjeza Gazidede, Specialist, Monetary Operations Department, Bank of Albania	1 299
Comments on: Coordination between the Central Bank and the Ministry of Finance under Inflation Targeting Lucia Quaglia, University of Sussex	317
Legal Issues for the Implementation of Inflation Targeting in Alban Toni Gogu, Head of the Legal Department, Bank of Albania and Elis Tarelli, Adviser to the Governor of the Bank of Albania, Mr. Ardian Fullani	ia 327
Comments on: Legal Issues for the Implementation of Inflation Targeting in Albania Ronald Albers, Directorate General for Economic and Financial Affairs of the European Commission	343
Closing speech Ardian Fullani, Governor of the Bank of Albania	349

FOREWORD

Dear reader,

After a year of intensive work, we are presenting a second set of discussions and ideas on how to design the optimal path for an efficient monetary policy in Albania. The first one was delivered in 2006 summarizing the proceedings of Open Forum "Inflation Targeting", which took place in December 2005 in Tirana.

Two years ago, we started thinking and working on what seemed to be just a vague objective at the time. The whole thing started with a small group of people trying to underline the main features of IT, and evaluating how our economy fits within a genuine IT framework. Here, we are witnessing the expansion of this group including more people in the process. These are experts who represent different departments, different backgrounds and innovative views, marking a positive outcome of the progress made in the past two years.

With the growing number of experts, technical and scientific work has marked a significant progress. We certainly have not come up with rocket science, but we believe we are moving on the right track, which gives us confidence for the future. We are confident, because we have laid solid technical grounds for the success of the new regime. However, our confidence does not stem solely out of this. During the last year, the future of monetary policy regime has been at the center of our daily discussions. Our staff, along with local actors, have increased their awareness over the possible changes in the monetary policy. So far, the idea has not been challenged or questioned, although silence is not always gold. The matter has spread beyond borders as it is heavily discussed with our international friends in all occasions. This book is a living proof of this fruitful communication.

The work done during 2006 and summarized in the following discussion papers was driven mainly by the recommendations from the Open Forum in December 2005. That event was our first serious public attempt to discuss issues of Inflation Targeting. Being the first attempt, perhaps it did not manage to go deeply into the characteristics of the Albanian environment. However, it marked an important step forward and it was a driving factor for the development of monetary policy in our institution. The Forum did manage to come up with important conclusions and recommendations, which set the ground for the future work.

Now, a year later, we can publicly announce that some of those recommendations are already fulfilled. To mention a few, since January this year, our inflation objective has changed from an interval 2-4 per cent year on year, to a point target of 3.0 per cent with a tolerance zone +/- 1.0 per cent. In order to improve the monetary policy decision making process, the Committee for Implementation of Monetary Policy has been established. It is composed of a small group of senior experts of the bank whose main job is to look into the monetary policy stance and implementation, and to advise the Supervisory Council accordingly. Along this process we have increased our understanding of legal implications of IT. We have identified the legal obstacles and have addressed them properly within the existing legal framework.

The rest of the recommendations have become part of the working agenda for the next years. This agenda has augmented

after the conclusion of this Round Table. The next pages will offer readings on eight important topics that represent the greas where we concentrated our efforts in the last two years with respect to making monetary policy more effective and strengthening institutional independence of the Bank of Albania. These topics focus on matters of building a macro-econometric model for the Albanian economy and inflation forecasting models to aid the policy makers and build a communication strategy suitable for clearly conveying their decisions. Further, they deal with improving the information database in order to enhance the decision-making process and to develop an understanding and robust monetary policy report. The last topics deal with the institutional aspects of Bank of Albania, investigating its relationships with the Ministry of Finance and other agencies, both from a practical and legal view. Indeed, the last discussion paper provides a comprehensive view of Bank of Albania's standing from a legal perspective and identifies challenges for further advancement.

We like to call these discussion papers since there is a lot that we can share and talk about. Our work is not finished, but ongoing, and your feedback and exchange of views is helpful to further improve our products.

SPEECH Fatos Ibrahimi*

Ladies and Gentlemen,

It is a pleasure for me to welcome you in Tirana to this Round Table on Inflation Targeting. This meeting is a follow-up of the Open Forum that took place in December last year. Today and tomorrow we will discuss the work that the central bank has been doing since the Open Forum. Together, we hope to have deep discussions and to determine a list of topics that should go on our IT-agenda for the year 2007 and possibly for the year 2008.

I am very pleased to welcome our foreign guests. Some of you, we have met before here in Tirana at the Open Forum. Others join us today for the first time. You come with your experience from other European central banks (Croatia, Czech Republic, Frankfurt, Finland, Hungary, United Kingdom and Turkey) and from major international institutions (IMF, European Commission) and, last but not least, academia. Next to our foreign guests, I warmly welcome our guests from other institutions in Tirana.

About 30 experts from the Bank of Albania will actively participate during these two days. Some of them will be presenting our Discussion Papers and others will enter the discussions with our guests. The management of the Bank of Albania can exchange their ideas with you on the follow-up of all these ongoing projects, in the short to the medium term.

Our Governor, Mr. Ardian Fullani will join us later today or tomorrow.

Metaphorically, I would like to sketch these two days as follows. Today we will start swimming in a troubled ocean. Although troubled, you will be able to distinguish two schools of fishes. One school consists of the employees of the BoA. The other school consists of our guests. The fishes in the first school may swim, let us say "wildly", but together. Their diversity will become more apparent during these days: the different fishes have different characteristics, and some will swim shallow and others will swim deep. Some may even reach the bottom of the ocean. Both schools will be swimming apart, but the discussions will make the two schools heading for the same direction. At the end of tomorrow you may not even see many differences between the schools anymore. And, hopefully, all fishes will be heading for the same direction towards clearer water.

On the contents, today will be a day where we concentrate on the Inflation Targeting path that the BoA is following, macro-econometric modeling and inflation forecasting and the communication strategy. The BoA can swim by and large on its own. But, it is seeking for some confirmation on the direction, and the depth level.

Tomorrow, the relation with other institutions here in Albania comes into play. The BoA is seeking a way (1) to get the statistical framework for Albania in order, (2) to transform its Monetary Policy Report into an Inflation Report; (3) to coordinate issues with the Ministry of Finance and (4) to identify the legal borders to Inflation Targeting.

Ladies and gentlemen, I wish you fruitful discussions during these two days.

As said before, we seek a confirmation that we are on the right track as we want to bring the Bank of Albania to high central banking standards. Like human nature everywhere, we would like to hear nice words. Next to the confirmation, please give us your true views. But during this Round Table we will need your critical remarks for further improvements in the daily processes of the Bank of Albania.

Thank you for your attention.

^{*} Fatos Ibrahimi, First Deputy Governor of the Bank of Albania.

THE IT CASE IN ALBANIA. A TENTATIVE ROAD-MAP FOR IMPLEMENTING IT IN ALBANIA

Erald Themeli Gramoz Kolasi*

ABSTRACT

The Bank of Albania intends to adopt inflation targeting as its future monetary policy framework. Inflation targeting will provide a better framework for integrating the increased information relevant for monetary policy decision-making and will offer a better communication tool for monetary policy. This paper tries to provide an overview of the past and future work for adopting IT in Albania.

INTRODUCTION

The performance of the Bank of Albania (BoA) in controlling inflation has been satisfactory. The BoA managed two disinflation processes, during 1992-1993 and 1997-1998, in a relatively short period of time and without much distress for the economy. CPI inflation has remained within the BoA's target band of 2-4 per cent for much of the time ever since. Increased monetary stability has been reflected in increased confidence in the Albanian currency - Lek – and has helped the development of a sound banking system. The BoA's success in delivering price stability is better appreciated if judged against the background of serious initial macroeconomic imbalances, the difficult political situation, the lack of institutional experience and the presence of several shocks.

A proper conclusion about the success of monetary policy needs, however, further qualifications. Monetary policy has been conducted within a policy climate geared towards macroeconomic stability. The prudent fiscal policy pursued in this period has had a positive contribution in controlling inflationary pressures. Unlike some other transition economies, Albania has avoided fiscal problems. The budget deficit and public debt have been gradually reduced over the years. Large-scale emigration has eased unemployment and social tensions in the country while yielding substantial remittances. These remittances have sustained the Lek exchange rate reducing external inflationary pressures or possible indexation effects.

However, the questions asked on monetary policy are becoming increasingly complex. The progressive expansion of the financial sector and the growing complexity of the economic activity require a more sophisticated approach to policy making. Our experience with the Albanian economy suggests that the link between money and prices is unstable and hard to work with. In acknowledging this, the BoA intends to move to inflation targeting (IT) as its future monetary regime. This regime is expected to anchor inflation expectations and accommodate country-specific shocks (see Jonas and Mishkin, 2003, and IMF, 2005). To this end, the BoA has integrated some features of IT in its current policy framework while working to meet the necessary preconditions for a gradual move to a formal IT regime.

The desired features of our inflation targeting framework were laid out at the Open Forum "Preconditions for Inflation Targeting in Albania" (Tirana, December 2005). The Forum supplied the BoA with valuable advice on various IT-related issues, which was reflected on our overall approach to IT as well as on our concrete actions in 2006. This paper aims to present a brief overview of the BoA progress in 2006 and to outline basic steps in our approach towards the full implementation of inflation targeting. Its structure is as follows. The first chapter explains the current infrastructure for monetary policy in Albania. In briefly summarizing the economic results, it reemphasizes the case for IT. The second chapter details the progress done during 2006 with regard to IT. It reviews the follow-up of the Open Forum recommendations and other issues related to IT. The third chapter provides a tentative action-path for the IT implementation.

1 BOA'S MONETARY POLICY AND THE IT REGIME

As a typical tool of macroeconomic management, monetary policy was introduced in Albania during 1992, in the wake of a package of reforms aiming to move the country from central planning to a market economy. This process was made possible by a general – though incomplete - liberalization of prices and the establishment of a two-tier banking system. The BoA assumed the role and the functions of a typical central bank. It was legally mandated to design and implement the monetary policy in Albania, aimed at maintaining price stability¹.

1.1 BOA'S MONETARY POLICY FRAMEWORK

From the beginning, the Bank of Albania adopted a monetary targeting regime supplemented by a free floating exchange rate. This decision was largely dictated by undeveloped financial markets, by the lack of institutional experience and by the low level of international reserves. Furthermore, monetary targeting represented a typical choice of transition countries since it was well integrated in the general *Financial Programming* framework that served as a basis for IMF assistance programs. Monetary targeting has aimed to control money supply in the economy, with broad money (M3) serving as intermediate target. In compliance with the normal set-up of Fund-supported adjustment programs, monetary targeting was complemented with quantitative targets on the foreign reserves of the BoA (floor), on the domestic assets of the BoA (ceiling) and on the overall domestic financing of the

budget deficit (ceiling). Besides representing the conditionality terms of the IMF programs, these limitations assumed the status of operational targets for the BoA.

This general structure of the BoA monetary policy has remained largely unchanged, though enriched with some contemporary features and better supported by the legal and the regulatory framework. However, we must emphasize two notable upgrades done to the policy framework:

- On a conceptual level the announcement, starting from 1999, of a numerical inflation target. The inflation target is announced for a three year horizon. The monetary policy decision-making body has also been provided with numerical inflation forecasts since 2001.
- On an operational level the switch to indirect instruments as the main tool of monetary policy. The use of indirect instruments was completely abolished in 2000.

The ultimate responsibility in designing the monetary policy resides with the Supervisory Council (SC) of the BoA. The SC discusses monetary policy issues every month and decides on the monetary policy stance. This stance is expressed through changes in one week repo rate, which is the policy rate of the BoA. Reflecting the growing complexity of the Albanian economy and the development of our financial markets, the SC has begun to issue a press release after each meeting. These communiqués are used to explain its policy decisions as well as to hint on the future course of monetary policy.

The SC decides monetary policy based on staff analysis and forecasts. Although the BoA is formally operating under a monetary targeting framework, the major input in the decisionmaking is the inflation forecast. The latter is evaluated against the BoA's inflation objective. Monetary analysis and monetary aggregates play a supporting role on the decision, but hardly ever the predominant one.

The SC is elected by the Parliament. It is composed of 9 members: the Governor, the two Deputy-Governors and six external members. Monetary policy decisions are the result of majority voting. In case of a draw, the Governor's vote decides. Minutes of the SC meetings are confidential.

1.2 POLICY RESULTS

Transition countries faced difficult choices in designing their stabilization policies. The initial GDP decline brought less fiscal revenues while increased unemployment meant higher budget expenditures in the form of unemployment benefits. Undeveloped financial markets meant that the budget deficit had to be covered by debt monetization. Combined with the natural movement of relative prices during the transition to a market economy the budget deficit contributed directly to high and persistent inflation. The broken traditional chains of trade deteriorated the trade balance and further hampered economic growth (Kutan et al., 2006). Under these conditions, economic policy was divided between the need to adopt tight measures in order to bring macroeconomic stability and the need for stimulating the economy in order to ease unemployment and alleviate social tensions. The solution to this dilemma was crucial in determining the disinflation speed and dynamics in transition countries.

Economic policy in Albania has aimed to quickly reestablish macroeconomic stability, through tight fiscal policy and high real interest rates. The price liberalization in 1992 was followed by triple-digit inflation. The stabilization package applied from 1992 onwards began to bear fruits. By 1995, the decline of economic activity was reversed, inflation dropped to 6% while the balance of payments showed signs of improvement. The rise and fall of pyramid schemes during 1996-1997 derailed the recovery process. In the face of widespread disruptions to economic activity, output declined and inflation jumped to 42%. This period was followed by another package of measures – launched in 1998 - aimed at restoring stability and disinflating the economy. They, too, proved to be successful. Inflation dropped again to single digit levels in 1998. With the exception

of the deflationary period of 1999, annual CPI inflation has largely remained inside the 2-4% target of the BoA ever since.



This performance was assisted by a number of factors. Fiscal policy has been prudent over this period. Early on, it cut subsidies to inefficient state enterprises and has gradually reduced the budget deficit by controlling expenditures and raising revenues. The BoA's monetary policy has tried to ensure positive levels of real interest rates during the '90s. Positive real interest rates helped to build confidence in the financial system and to increase demand for Lek denominated financial assets. The high demand for Lek coupled with large incoming remittances brought nominal and real appreciation of the Lek exchange rate². The steady appreciation of the exchange rate has helped to control inflationary pressures in the economy and has increased confidence in Lek, resulting in gradually decreasing risk premia.

Capitalizing on low inflation and a positive macroeconomic outlook, the BoA began to ease monetary conditions in the country, starting from 2000. This move has eased appreciating pressures on the exchange rate and has created room for increased financial intermediation in the country. However, it must be noted that lending in foreign currency remains largely dominant and the low international levels of interest rates must be regarded as the major driver behind this expansion. The



banking system is becoming increasingly competitive and the banks are rapidly spreading advanced banking services through the country. Outside the banking system, the financial sector remains largely underdeveloped with small institutions active in the insurance and pension sectors, but with virtually inexistent capital markets.

1.3 BOA AND THE IT REGIME

In spite of the results, macroeconomic stability is not yet consolidated and the success of monetary policy can not be taken for granted. Several financial market indicators show work still remains to be done in order to increase the confidence of the Albanian public in their currency. Bolle and Meyers (2005) argue that inflation premia implicit in the yield curve and the high dollarization levels indicate that inflation expectations are not yet anchored to the BoA inflation target. The monetary targeting regime becomes even more challenged if one makes the distinction between inflation performance and the monetary targeting framework performance. Luci and Ibrahimi (2005) have argued that the framework performance is considerably poorer than what the inflation history would suggest. The BoA has managed to keep inflation inside its targeted band of 2-4% during 4 of the past 6 years but has constantly missed its M3 intermediate target by a considerable margin. As such, the authors note, M3 has little informative power with regard to expected inflation developments.³

(
Year	M3 target	M3 actual	Inflation objective*	Inflation Actual
1993	44.1	74.4	-	30.9
1994	29.0	41.0	24.0	15.8
1995	23.0	51.8	10.0	6.1
1996	22.0	43.8	12.0	17.4
1997	-	28.5	53.0	44.6
1998	23.0	20.6	10.0	8.7
1999	15.0	22.2	7.0	-1.0
2000	12.1	12.8	2-4	4.2
2001	15.4	19.9	2-4	3.5
2002	6.2	5.1	2-4	1.7
2003	9.5	8.3	2-4	3.3
2004	10.6	13.5	2-4	2.2
2005	8.3	14.0	2-4	2.4

Table 1 Inflation vs. M3 intermediate target performance (annual growth rates, in percent)

Source: Luçi and Ibrahimi (2005)

* The inflation objective for the 1994-1998 periods refers to internal projections.

Furthermore, real M3 velocity shows too much volatility to be of any practical use in the conduct of monetary policy. While M3 growth might retain its predictive powers in long-term horizons, it is of little use for monetary policy decision-makers in making timely decisions. As a result, the BoA is forced to look at other options for conducting monetary policy.

Judging by the experience of transition countries, one can not get an ultimate answer as to the proper choice of the monetary regime. Rather, it seems, the choice should be based on a careful evaluation of country-specific features and, most importantly, it should be coordinated with other macroeconomic



policies. The relative price stability provided by the BoA would give the BoA the right to pursue an independent monetary policy in the form of monetary targeting. While targeting its liquidity and interest rate policies towards achieving low inflation, it has retained enough flexibility to respond to domestic shocks, such as the deposit withdrawals in 2002 (see Bank of Albania Annual Report, 2002). Choosing an exchange rate based monetary regime would undermine this hard-earned flexibility. A strong exchange rate regime would imply real exchange rate appreciation because of higher domestic inflation. This erodes the country's competitiveness and undermines the central bank credibility if it is dealt with nominal devaluation of the exchange rate. Furthermore, such regimes make it harder to accommodate transition-countries specific challenges, such as the high inflows of funds. Taking note of these problems, IMF (1997) advises exchange rate targeters among transition countries to switch to a flexible exchange rate, once they have achieved disinflation.⁴

The BoA intends to adopt IT as an effective regime for conducting monetary policy in the future. IT adoption is motivated by several considerations. As a more transparent monetary framework, IT is expected to provide the BoA with a superior tool for communicating its monetary policy to the public. This will allow for a better management of inflation expectations, decreased risk premia and thus a better overall performance. Being an information-intensive regime, IT will be able to integrate better in its decision-making structure the growing complexity of the Albanian economy. This will allow the BoA to respond better to potential shocks. IT, a regime billed as "constrained discretion", is expected to provide the best of both worlds: to provide enough constraints to the monetary policy in order to avoid time inconsistency problems and help build credibility and to allow enough room for dealing with specific shocks. Since IT is obligingly accompanied with a floating exchange rate, it will retain the BoA's ability to deal with asymmetric shocks. As a last note, the BoA's return from investing in building capacities for IT is not expected to be a short-term one. The end for the road for IT would arguably be Albania's adoption of Euro, sufficiently far on the time horizon to make it worthwhile.

2 IT IN ALBANIA DURING 2006

The BoA expressed its strongest intent for IT adoption at the Open Forum, held in December of 2005 in Tirana. The participants were presented a clear view of the BoA's IT project. Their feed-back was greatly appreciated and the conclusions of the Forum were integrated in our 2006 work agenda. The following chapter will describe the main work directions in 2006 and their results with regard to IT.

2.1 INSTITUTIONAL ARRANGEMENTS WITH REGARD TO IT

Recognizing IT is a multidimensional project, the BoA set up a special internal coordinating group, named Inflation Targeting Implementation Task Force (ITITF). The idea behind ITITF is threefold. First, it serves as a forum for the discussion of theoretical and technical issues on IT. By seeking to get an early consensus on various topics, it tries to ensure the consistency of the whole project. Second, ITITF sets the agenda for the implementation of IT in Albania making sure the work proceeds on schedule. Third, it provides a framework of accountability inside the BoA. The group is chaired by the Governor, with participants being IT-relevant directors and qualified economists within the BoA.

Based on a detailed and forward-looking agenda, ITITF met on a monthly basis during 2006 and discussed all the issues relevant for IT implementation.

Following the conclusions of last year's Open Forum, the BoA has institutionalized monetary policy discussions at CIMP (Committee on Implementation of Monetary Policy) meetings. This arrangement partly reflects the BoA's acknowledgment of the legal and constitutional difficulties of establishing a proper MPC (see Gogu et al., 2006). CIMP discussions are conceived as an advisory forum which aims to stimulate at a technical level the discussion on monetary policy. On a monthly basis it reviews the economic analysis, inflation forecasts and the monetary policy stance proposed to the Supervisory Council. Chaired by the Governor and with the participation of staff qualified on monetary management, the CIMP serves as a filter of monetary policy issues presented to the SC, who retains the ultimate responsibility on deciding the BoA's monetary policy. (Pursuing its raison d'être, on a weekly basis, CIMP decides on market operations for implementing monetary policy.)

We have identified the legal and statistical issues as two priority areas for a successful implementation of IT. The BoA established the Statistics Department (the statistics unit being previously a sector) and staffed it in order to meet the urgent need for statistics, especially with regard to IT. At the same time, the Legal Department was established with the aim of placing future legal initiatives of the BoA on a sound legal basis.

Seeking a higher transparency level, the SC monetary policy decisions are explained to the public via press releases. These publications set the interest rate decision in a forward-looking context while trying to give a qualitative assessment of the balance of risks on inflation and hint at the likely future monetary policy decision. In addition, the BoA organized a press conference explaining its (only) interest rate change in 2006, a practice which we intend to continue in the future.

2.2 INFLATION TARGET AND INFLATION FORECAST

Following advice received at the Forum, the BoA changed the form of its inflation objective. We shifted from a target band of 2-4% to a point target of 3% with a tolerance zone of \pm 1 p.p. At the same time, the BoA dropped its reference for an end-year target, switching to a continuous target. This move was announced and properly explained in our Monetary Policy Document⁵ for 2006 and was reiterated for a 3 year timehorizon in the BoA Medium-term Development Strategy covering the 2006-2008 period. The new form of the target is expected to provide a focal point for inflation expectations and anchor them to our inflation objective. This presumption leads from the belief that inflation expectations are usually oriented towards the upper level of a target band.

Being a forward-looking regime, the Inflation Targeting framework relies a lot, but not exclusively, on inflation forecasts. At present, the BoA uses a set of econometric inflation forecasting models to produce inflation forecasts that are presented to the SC every month. The models, the forecasts and the main assumptions used for the forecasts, are not yet presented to the public. Both the BoA staff and the decision making body are aware of the limitations of these models stemming from data problems, short modeling experience and difficulties in assessing future developments in exogenous variables. For this reason, present work is channeled in two main directions. The first task is the improvement of the existing forecasting tools. The six models⁶ are continuously reestimated and updated with new variables that perform better in terms of explaining and forecasting inflation. At present, the forecasts obtained from the models for the last 1.5 years are being evaluated (Kota et al. 2006). In the course of 2007 the performance of each model will be formally assessed and a choice regarding the presentation of the inflation forecast to the public will be made. Preliminary results indicate that guarterly forecasting models are better at predicting the inflation magnitude than the monthly forecasting models (Kota et al. 2006), while the statistical basis of the quarterly models is more abundant and more reliable. In the

near future the quarterly models will replace the monthly models as the focus of the BoA monetary policy will shift from the monthly frequency to the quarterly frequency. The other direction of work is the development of a structural macroeconometric model for Albania (MEAM). Technical descriptions of this model are provided in Dushku *et al.* (2006).⁷ In spite of the considerable progress in this direction, the MEAM is an ongoing process that consists in the improvement of the statistical database, in the elaboration of the equations and in the strengthening of ties between research work and monetary policy. The MEAM results are expected to be used for producing reliable macroeconomic forecasts by 2008, at earliest. In the meantime MEAM will be used for shock simulations that will assist monetary policy decision making at the BoA.

Being conscious about the serious obstacle presented by the quantitative and qualitative lack of statistics, the BoA has tried to address this issue in an institutional manner. The BoA has pursued its surveys on Business Confidence and Consumer Confidence. Concurrently, the BoA has used its geographical network to extract through surveys, timely data on the economic activity. The BoA is continuing its cooperation with INSTAT as it concerns measures beneficial to both parties. Shijaku *et al.* (2006) provides a clear description of the problems we are facing and the steps we are taking to improve our statistical framework.

2.3 FINANCIAL SECTOR DEVELOPMENT

The central bank occupies a crucial role in the financial sector since it is charged with the design and implementation of monetary policy, performs (usually) supervisory tasks on part of the financial system and performs lender of last resort functions. The role of the central bank is arguably even more central in transition economies due to their underdeveloped capital markets and lack of institutional capacities. The main thrust of our proposals at the Open Forum aimed to ensure the financial stability and to increase the competitiveness of the financial system. To this end, we made detailed proposals at the Open Forum and took note of the feed-back received, as discussed here below.

A large group of issues related to the banking system is being addressed in the new Law on Banks which is being drafted with IMF assistance. We hope the Law to be approved and become effective during 2007. This new (Draft) Law incorporates our experience as well as the best international practice. Besides improving the supervisory norms and reducing inconsistencies, it aims to increase the transparency of the banking system in relation with the customers.

With the assistance of the World Bank, the BoA is in advanced phases of constituting the Credit Information Bureau. This will be a measure of special relevance given the current credit boom in Albania. It will help the banks in a better assessment of their prospective clients.

At the insistence of the BoA, the other regulatory agencies of the financial system have been merged into a single entity. We deemed this as a necessary step for ensuring the quality of supervision and for a regulatory convergence that prevents unfair competition between different branches of the financial system.

Pursuing the work towards a consolidated financial system, the property rights for two banks of the financial system were solved during 2006. At the same time, another bank entered the banking system raising the community numbers to 17. The BoA has further improved the payment infrastructure and it has worked with the MoF for lengthening the government debt average maturity. A longer time horizon for the government securities' yield-curve will help the development of other longterm financial instruments and it will allow the BoA to extract information about inflation expectations in the economy.

2.4 INSTITUTIONAL RELATIONS OF BOA

Another topic raised and debated in last year's Open Forum were institutional relations of the BoA. This covered a broad range of topics, starting with the role of the BoA in the financial sector, its interactions with the MoF and ending with the relations between BoA and the public. The discussions raised a lot of sensible suggestions.

The relations between the BoA and the Government. especially with the MoF were a crucial area under our attention. We have worked for clearing out our respective positions with a view towards ensuring the public about the BoA independence. Another set of proposals dealt with the relations between the BoA and the private sector. These proposals aimed at ensuring the effectiveness of monetary policy through better communication with the public. Based on the feed-back we received at the conference, the BoA has drafted a Communication Strategy (Nervaj et al. 2006). This strategy aims to increase the public's awareness in issues of monetary policy in general, and inflation targeting in particular. It lays down concrete actions to be taken in the medium term to examine and alter accordinaly public's perception on the launch of Inflation Targeting. The proposed strategy takes the approach that the launch of IT will be a aradual process. It defines different target aroups and tailors different means to reach these groups.

3 FUTURE WORK TOWARDS IT IMPLEMENTATION

3.1 OVERVIEW OF THE IT IMPLEMENTATION TIME PATH

The BoA intends to move gradually to a fully-fledged IT regime in the near future. The recent performance of CPI inflation does not warrant any need for a quick change of the monetary regime, despite its shortcomings. The BoA looks to adopt IT as an improved framework for monetary policy. Furthermore, the current PRGF/EFF arrangement with IMF states: "Our current monetary policy framework—a reserve money program with quantitative targets set in consultation with the Fund and with changes to the repurchase rate as the main policy instrument will be retained over the program period so long as it remains effective in controlling inflation."⁸ The BoA intends to work with a view of launching IT at the end of this arrangement, i.e. at the beginning of 2009.

To this end, the upcoming 2 years (2007-2008) will be used to evaluate and fulfill the necessary preconditions for adopting IT (see Box 1). By the end of 2008, the SC will be presented with an assessment of these preconditions and based on it will decide on launching the IT. The SC will also decide the specific features of IT based on detailed analysis and proposals presented by the staff. The BoA will seek a formal acknowledgment by the Minister of Finance for launching IT. This acknowledgment will be included in a Memorandum of Macroeconomic Stability (MMS), which will help the policy coordination between the two institutions (see Luçi et al. 2006).

The ITITF will continue to exert the leading role in the gradual approach to IT. This task-force will proceed to coordinate the whole IT project while serving also as the relevant internal forum for theoretical discussions. A special emphasis will be placed on building the internal capacities for IT. A soundly functioning IT reaime requires a heavy reliance on strong analytical and forecasting tools. Investing to build the necessary human resources will be an issue of prior importance for the BoA. Concurrently, the gradual approach to IT will allow the BoA the necessary time to develop its internal analytical tools and decision-making procedures and to test various IT processes and products, such as the Inflation Report and the inflation forecast. In December 2007 and December 2008, the BoA will continue to organize annual Round Tables to discuss the progress made with regard to IT and to seek advice on the challenges ahead.

The launch of IT will be announced in a specific document that will explain to the public its various elements. Prior to this, the BoA should intensify its communication with the public in order to increase public awareness regarding inflation and monetary policy.

Box 1 IT Preconditions

The IT literature recommends several preconditions that have to be met prior to IT adoption. Eichengreen et al. (1999) saw the lack of technical capabilities in transition countries central banks as a serious obstacle to implementing IT. Others have taken a more cautious approach. While detailing a list of preconditions and stressing the need for fulfilling them, Carare et al. (2002) take the view that such "preconditions" should not be taken as "strict prerequisites" for launching IT. That is, a central bank can proceed with launching IT even if some of the preconditions are not met. They do, however, stress the need for introducing policies in order to meet them in the future. A similar view is taken by Jonas and Mishkin (2003). IMF (2005) notes that no transition country had all the preconditions in place prior to IT adoption.

In its World Economic Outlook (September, 2005), IMF divides these preconditions into 4 groups:

- Institutional independence
- A well-developed technical infrastructure
- Economic structure
- A healthy financial system

Each of these groups contains several subtopics, which will be thoroughly investigated and dealt by the BoA in the future. Except the possibility of direct financing of the budget deficit, we envisage the BoA will fulfill the preconditions by end 2008. The debt monetization issue requires a legal change of the BoA Law, which, according to the National Plan for the Implementation of the Stabilization and Association Agreement, will be drafted and approved at the latest by the end of 2010. The new Law should be fully compatible with the acquis communitaire of the European Union, explicitly forbidding the financing of the budget deficit. This moment will represent the shift to a fully fledged IT regime in Albania.

3.2 IT WORK DURING 2007

The BoA will try to constantly upgrade its monetary policy framework by adopting various features of IT. In our view, this approach will help the BoA to accumulate valuable practical experience and will make for a smooth transition to fully-fledged IT. These measures may not be exclusively linked to IT. However, they are undoubtly IT- relevant and represent genuine features of a sound monetary policy. The BoA's objectives for the coming year are stated below.

- a. The BoA's decision making arrangement on monetary policy will be further evolved. SC meetings dealing with monetary policy will be reduced from 12 to 8 a year. A calendar of these meetings for 2007 will be preannounced at end 2006.
- b. From 2007 (tentatively Q1), the MPR will be produced and published only on a quarterly basis (currently it is being produced monthly). This will be a first step towards its gradual convergence to an Inflation Report (see Shtylla et al., 2006). Normally, SC meetings when interest rates decisions are taken will be the ones when the MPR is presented. This does not exclude the possibility of interest rate decisions on the other meetings, if the available information makes it necessary to act. In the interim meetings, the SC will be provided with up-dated forecasts and a general reevaluation of the economic and monetary conditions.
- c. Starting from 2007 (tentatively Q2), the BoA will publish in its quarterly MPR a graphical representation of its inflation forecast, based initially on the partial econometric inflation forecasts. This will help the BoA to better communicate its monetary policy decisions to the public. (Currently, the inflation forecasts are confidential. Instead, the monetary policy decisions of the Supervisory Council are explained in the form of a qualitative assessment of the relevant information.)
- d. The BoA will continue to refine MEAM. Improvements will include the statistical base, re-estimations and literature search for calibration of parameters. In 2007 MEAM will

be used for internal simulation exercises at the meetings of CIMP (Committee for Implementation of Monetary Policy). Eventually, MEAM will become the tool for fully fledged macro-economic forecasting in Albania.

- e. The BoA will implement the ITCS (Inflation Targeting Communication Strategy). This strategy is intended to increase the public's understanding and familiarity with the monetary policy and IT (see Nervaj *et al.*, 2006).
- f. The BoA intends to proceed with the publication of the Business Confidence Index (BCI) and Consumer Confidence Index (CCI) during 2007. These indices are produced by the BoA. They are integrated in our economic analysis framework, but they are not released to the public. We deem their publication is not a step exclusively related to IT, but a proper one towards increased transparency.

Other issues related to IT

- g. Statistical issues are one of the most challenging areas for launching IT in Albania. To this extent, we are taking concrete measures that will improve our statistical database, both quantitatively and qualitatively (see Shijaku et al., 2006). In brief, they foresee:
- The building of new indicators for asset prices, the annual index of industrial production and quarterly external debt, the surveys on foreign direct investment and the measurement of remittances;
- The shortening of the time for collecting and processing monetary data;
- The building of an internal database allowing quick access to BoA's users;
- Continued relations with reporting institutions such as ministries, INSTAT and other reporting institutions, coordinating the relationships between other statistical agencies and the IMF for SDDS purposes and preparing memoranda of understanding with statistical agencies.
- h. The BoA will push to further develop the financial markets. By mid-2007, BoA will design a concrete action plan with

detailed measures in this regard. This plan will seek to coinvolve the MoF in what is a task of mutual interest.

i. The BoA will intensify its cooperation with the MoF. Beyond the policy coordination issues, which will be achieved via the MMS, the BoA intends to establish a functional relationship on the technical layers of both the BoA and the MoF. This increased cooperation will entail a regular exchange of information (see Luçi *et al.*, 2006). On these occasions MEAM will be used, among others, for making macro-economic projections.

NOTES

* Erald Themeli, Deputy Director of Monetary Policy Department, Bank of Albania; Gramoz Kolasi, Director of Monetary Policy Department, Bank of Albania.

¹ This clear mandate for price stability was implemented in the 1997 version of BoA Law, as the previous version of 1992 charged BoA with the task of maintaining "the value of Lek".

² However, one should not exclude possible Balassa-Samuelson effects as a reason behind exchange rate appreciation. Olters (2005) found tentative evidence showing that such a possibility might indeed be the case.

³ Internal BoA tests show other monetary aggregates, like M1, have little correlation with CPI inflation.

⁴ The debate on this issue is not yet finished. Dabrowski (2002) notes that small transition countries can not hold complete independence of monetary policy, even in the face of a floating exchange rate. The dollarization of these economies and the presence of risk premia narrow the scope for an independent monetary policy.

⁵ The BoA issues an annual Monetary Policy Document which specifies, among other issues, the form of our inflation objective.

⁶ See Çeliku, E., Shtylla, D., Hashorva, G., Hoxholli, R., Kota, V., 2006 "The Portfolio of Econometric Models for Inflation Forecasting at the Bank of Albania: Updated in 2006" BoA Discussion Paper.

⁷ See Dushku E., Kota V., and Binaj G., 2006, "A Macro Econometric Model Approach for Albania", Bank of Albania Discussion Paper.

⁸ See IMF, "Albania – IMF Country Report". January 2006

Bank of Albania, (2005). "Preconditions for Inflation Targeting in Albania". Bank of Albania Open Forum.

Bank of Albania, (2002). Annual Report.

Bolle, M., Meyer, T., (2005). "The Effectiveness of Monetary Policy in Albania and the Need for Further Reforms". Central Banking in the Time of Integration, p. 19-52.

Carare, A., Schaechter, A., Stone, M., Zelmer, M., (2002). "Establishing Initial Conditions in Support of Inflation Targeting". IMF Working Paper.

Çeliku, E., Shtylla, D., Hashorva, G., Hoxholli, R., Kota, V., (2006). "The Portfolio of Econometric Models for Inflation Forecasting at the Bank of Albania: Updated in 2006" Bank of Albania Discussion Paper.

Dabrowski, M., (2002). "Is there Room for Monetary Policy in the Era of Globalization?"

Dushku E., Kota V., and Binaj G., (2006). "A Macro Econometric Model Approach for Albania", Bank of Albania Discussion Paper.

Eichengreen, B., Masson, P., Savastano, M., Sharma, S., (1999). "Transition Strategies and Nominal Anchors on the Road to Greater Exchange-Rate Flexibility," Essays in International Finance, No. 213.

Gogu, T., Tarelli, E., (2006). "Legal Issues for the Implementation of Inflation largeting in Albania". Bank of Albania Discussion Paper.

IMF, (1997). "Monetary and Financial Policies in Transition Countries". World Economic Outlook, P. 98-118.

IMF, (2005). "World Economic Outlook". September 2005. p. 172-178.

IMF, (2005). "Albania – IMF Country Report". January 2006.

Jonas, J., Mishkin, F., (2003). "Inflation Targeting in Transition Countries: Experience and Prospects", NBER Working Paper No. 9667.

Kota, V., Hashorva, G., Peeters, M., Çeliku, E., (2006). "Evaluation of the Headline Inflation Forecasts made in April
2005-September 2006". Bank of Albania Discussion Paper.

Kutan, A., Brada, J., (1999). "The Evolution of Monetary Policy in Transition Economies". ZEI Working Paper.

Luçi, E., Ibrahimi, F., (2005). "A Review of Albanian Monetary Targeting Regime with Insights into the Future." Central Banking in the Time of Integration, p. 193-212.

Luçi, E., Gjermeni, M., Gazidede, A., (2006). "Coordination between the Central Bank and the Ministry of Finance under Inflation Targeting". Bank of Albania Discussion Paper.

Nervaj, E., Kaso, R., Kraja, I., Lama, D., Peeters, M., (2006). "A Proposal for the Inflation Targeting Communication Strategy of the Bank of Albania". Bank of Albania Discussion Paper.

Olters, J-P., (2005). "Is Inflation too Low in Albania? MacroeconomicFoundationsandSocioeconomicDevelopment." Central Banking in the Time of Integration, p. 147-174.

Shijaku, H., Ceca, K., Ruci, e., (2006). "The Improvements in the Statistical Framework for Inflation Targeting in Albania". Bank of Albania Discussion Paper.

Shtylla, D., Suljoti, E., (2006). "The Transition from Monetary Policy Report to the Inflation Report at the Bank of Albania". Bank of Albania Discussion Paper.

COMMENTS ON: THE IT CASE IN ALBANIA. A TENTATIVE ROAD-MAP FOR IMPLEMENTING IT IN ALBANIA

Marko Škreb*

I would like to start with three introductory confessions: a) I am not an objective observer of the inflation targeting (IT) process in Albania, b) I have a propensity to down-to-earth approaches, not pure theoretical thinking and c) I will be global and prescriptive, not narrowly technical in my comments. I admit: a) I am not fully objective observer of IT (inflation targeting) process in Albania, as I travel regularly to Albania, participate at a lot of ITITF (inflation targeting implementation task force by Bank of Albania) meetings, so in a way I am an "insider". I am not someone that can have a completely "fresh look" at the developments. b) Furthermore, I will immediately reveal my preferences. I think, based on the available information, that some type of IT is a good choice for Albania in the medium term. Not necessarily a pure fully fledged IT case, but a "hybrid" monetary policy framework, tailored to Albania's reality. What is essential for the central bank is to keep prices stable as well as a stable financial system. Again, I do not believe that a "pure" fully fledged IT is feasible for Albania¹, nor is a hard peg a good solution for the present circumstances ("Why fix it, if it ain't broken?"). In my view, future conduct of monetary policy in Albania will be similar to what is going on presently and in the last two-three years. Once the IMF program expires (end 2008) I do not think there will be a "tectonic" change in Albania's monetary policy strategy. In my

view, the Bank of Albania will probably continue doing more or less the same as it is doing now (of course in the absence of major shocks) and that is: announce an inflation target but *de* facto be in a balancing act between two nominal anchors: i.e. fighting nominal² appreciation to preserve competitiveness as the first one and keeping its inflation "promise" as the second target. So what we are discussing are the shadows of gray, not a black-white discontinuity in the conduct of monetary policy in Albania. c) My third confession is that my comments will not be limited narrowly to the first paper only, or the technical side of it, but will address some global issues regarding present and future monetary policy in Albania. In other words, I will try to paint a broader picture through my own glasses, with emphasis on strategic questions.

My first statement is that you, the Bank of Albania, have done a lot of progress in IT preparation and in understanding monetary policy. I am personally very pleased with the technical work done at the BoA in the past year³ regarding IT preparations. And this needs to be clearly stressed as the opening remark. I am impressed with the focus and commitment of your work. I think all the papers and work show higher professional standard, progress and all this is very reassuring about the future. We all have a much better vision of both challenges and advantages of IT in Albania that we did a year ago. Needless to say, what we have now is not a finished product, nor can any such endeavor be considered finished. But the ITITF deserves kudos for its work. With this in mind, some suggestions will follow.

My first suggestion is that you should understand and describe better what you presently do in monetary policy. My first comment is that you need to better understand and describe the present situation regarding your monetary policy. You still have the IMF program with its quantitative targets and will have one during 2007 and 2008. This determines your monetary policy to a large degree, but not completely. Furthermore, I would personally not label this as a pure monetary targeting. The Fund program gives you floor on net international reserves (NIR), ceiling on net domestic assets of the Bank of Albania (BoA) and ceiling on net

domestic credit (of the monetary survey) to government⁴. This is not strictly speaking a ceiling on base money or M3. It only limits the way base money can arow (by limiting domestic money creation). Assuming a large capital inflow, the program allows for high base money growth (and accordingly NIR growth), and for private sector arowth, which a narrow money taraet would not. At the same time, you announce your inflation target and try to "deliver" on it regularly. Based on this, some authors classify you as an IT "lite" country (Stone, 2003). Finally, it is my understanding that you do not "neglect" completely your exchange rate, you worry about competitiveness and a growing current account deficit. But you are not an exchange rate targeter either. In other words, to me it seems that you do not have a single anchor. You are not alone. What you should try is to give relative weight to your targets/anchors i.e. be very specific what is your primary final target, what is your secondary final target, what is your operational target etc. The reason for this exercise is that I believe: a) you need to know where you are now, i.e. exactly what you do (positive approach), b) you need to know where you want to go (probably IT - but with specific modalities) and c) you need to know how you are going to move from a) to b). During the Open Forum last year and during this Round Table we are focusing on b) and c) i.e. normative approach. But, understanding better what you actually do now may be helpful. I am using this opportunity to reiterate the need for the BoA to understand clearly what it is doing with foreign exchange interventions now (without going into details). The point is not to describe what you think you do, or what you would like to do, but what you actually do in monetary policy, including foreign exchange interventions. In my humble view, this should be a separate task for 2007 in your work plan. It would be very helpful to produce and discuss a paper on your monetary policy (including foreign exchange interventions).

Build a "stronger" case for the IT in Albania by explaining better why you reject other monetary policy strategies, for example an exchange rate peg as a solution for a very small, open economy like Albania⁵. I would recommend putting this explicitly as a separate task in your plan for 2007 as well. It is true that you do discuss other monetary policy frameworks in the paper. This is done at several places (for example, introduction page 1, or against monetary regime and exchange rate on page 8.). But my recommendation is that stronger arguments should be used for it. For the public and for the BoA Council you would need a careful evaluation of pros and cons of every monetary policy framework available to you. For an optimal, professional decision on the monetary framework for Albania (post-Fund) you need careful examination of alternatives. You do not want such an important decision to be taken by inertia or simple "fashion". IT is definitely en vogue, no doubt that it is a ruling monetary policy paradiam in the last twenty years. But vour decision needs firm foundation⁶. In the spectrum of possible choices, the case of rejecting pure monetary targeting is relatively clear and I personally do not think you need to spend much ink on this⁷, though you should not exclude financial assets from your consideration. But, in my view, your suggestion to reject fixing the exchange rate in the case of Albania would need more arguments⁸. You say: "... a strong exchange rate regime would imply real exchange appreciation because of higher domestic inflation." (p. 8). In theory you could be true, but in the case of Albania? You do have a "strong exchange rate" with the present "free floating regime" now. I would argue, that if you had pegged to Euro some time ago, your nominal exchange rate would be "higher" i.e. you faced nominal appreciation. For example in early 2003 the exchange rate to the Euro was about 140 ALL and on December 4 2006 it was 124 ALL - a 13% nominal appreciation⁹. In the future, you should expect stronger nominal appreciation (at least strong pressures). Further capital inflows combined with a free floating exchange rate regime (part of IT) in a country like Albania will most probably result in further nominal appreciation. This has happened in a lot of transition countries in the region. Why would Albania be different? So, I am convinced that if you peg the rate now, you will (by definition) face no nominal appreciation toward the Euro, but if you go to IT and let the rate freely float as you claim, you will face strong nominal appreciation. If you fear appreciation, think this carefully. Furthermore, in spite of IMF advocating more flexibility in exchange rate policy lately, in practice there are highly successful hard pegs, like the three Baltic countries and Bulgaria and all are in EU. And not many countries can afford to "freely float"¹⁰. Look at Croatia or Serbia. You speak about the needed flexibility (which you claim was hard won). How much of that flexibility can you afford? Will you not be afraid of really floating? This is explored in my next comment.

Factor in structural constraints in conducting monetary policy and especially think hard about IT within a dollarized economy and reach your conclusions about Albanian economy. Albanian economy is dollarized to a modest (I would call it relatively high) degree¹¹ and it is pretty open as well¹². Can Albania afford to "forget" about its exchange rate with such transmission mechanisms? Furthermore, are we clear on the transmission channels and their strength in Albania? How strong is the pass through? Are we sure that IT in Albania will not end up with having exchange rate stability as an operational target? Or should Albania have twin anchors -final taraets (inflation and exchange rate)? Those and other questions will not have definite answers soon. But we need to address them explicitly and attempt to find answers. You will not find those answers in textbooks or in other people's work. You need to do your own homework. For me this is the main issue if IT can work in Albania: you need to see the big, strategic picture. In this work, I would definitely recommend to you paying special attention to the recent IMF working paper on IT in dollarized economies (Leiderman et all, 2006). Their main conclusion, on the cases of Peru and Bolivia (and Chile and Colombia as non dollarized control group) is that while dollarization changes the transmission capacity of monetary policy and its impact on real and financial sector, it does not preclude the use of IT as a policy regime. I would really like to see a similar exercise done for Albania. In other words, "own" this hypothesis, don't just take it at face value from others. Like the best suits, optimal monetary policy is "tailor made".

Simulate what may happen after the IMF program expires (Jan 1, 2009). You will face a lot of constraints, be aware of them. This is part of the road map of IT that you need to accomplish; it is not a futile academic exercise. True, this is not urgent but

it is an exercise that needs to be done in due time. What are your choices once the program expires? Look at it from the "realpolitik"¹³ perspective. I do not think that you will have "all the liberty in the world". Besides already mentioned dollarization as a structural constraint, think of other as well. First at that time you will have the sovereign rating, so you will have to "play" by the rules of the international game in your policy. I assume that you may need to continue maintaining your international reserves at a "healthy" level (interestingly the same conclusion about the need to maintain the international reserves is reached by IMF Albania, 2005). In your circumstances, the path of gross usable reserves will pretty much determine your monetary policy in 2009-2010 the way it is now. Unless you have to deal with a neaative shock I do not foresee the major change in your monetary policy after the IMF program. Yes, you may make some PR statements, but will the character of your monetary policy change? Even announcing a shift to IT in my view will not substantially change the way you do monetary policy. Furthermore, consider other limitations that you will face once the IMF program expires. First, on January 1, 2009 you will not aet rid of lending to government. This is not a major obstacle as long as you can control it i.e. as long as it does not interfere with your monetary objectives. But, you have to be aware that in two years' time the option of lending to Government will be there (probably at least until 2010 when you will change the Central Bank Law). Second, you will not have an independent monetary policy council, but a Supervisory Council (the present one) with all its good and bad sides (one should not expect a change in Constitution soon). This as well can be worked out and need not obstruct IT, but again you should make it explicit. Third, you will lack some statistics, for example I doubt that you will have quarterly GDP data and some other data will be lacking. You can live without that, but factor it in as well. Fourth, as mentioned in the previous point, you will still be dollarized (to some degree). Fifth, the depth of your financial system will not be that of an advanced economy. The last two limitations will determine your transmission mechanism. I think it is important to simply take stock of the exogenous (exogenous to the BoA work) constraints and not spend time on them (if they do not hamper IT itself). In short, most papers that deal with IT in emerging economies agree that it may work (and it does in some countries) but that is more complicated than in advanced economies. That means more challenges for you and factoring in the mentioned structural constraints.

However, be aware of the risks of conducting pragmatic policy. The pragmatic approach that I implicitly advocated has serious risks as well. You need to be aware of them. First you may end up trying to achieve too many objectives with too little instruments. Those problems are well known from economic theory (more precisely from Jan Tinbergen). Second, the risk is that your focus may change with time and this may lead to inconsistency in your action. If the public perceives you as inconsistent, this may be the end of your credibility, with all its negative implications. You need consistency over time. And, to repeat what is well known, credibility is the most important asset any central bank has. It is an art to be consistent, vet pragmatic enough in the environment of incomplete information and rapid structural changes. Third, with a "pragmatic" framework it is very difficult to be transparent. And we know about the relevance of transparency in modern central banking. Fourth, remember impossible trinity.¹⁴

Make sure you are up to speed in academic and practical developments on IT in emerging economies. Literature on IT in emerging economies is expanding and it is expanding rapidly¹⁵. So is experience with IT in those countries. Several years ago, IT was considered non-applicable to emerging economies¹⁶. Today's view and practice are different. Therefore, I would like to see more reference to this in your future summary papers. On top of the relevant work already mentioned (Leiderman *et al.* 2006) I suggest to explore the following work on IT: Stone (2003), IMF (2006), Mishkin (2004)¹⁷, Eichengreen (2002) and Ho *et al.* (2006). And the list will continue growing exponentially. All this is only selected work on IT in emerging economies, nothing from advanced ones. Today's understanding of IT in non-industrial countries is limited. Therefore, you should follow the developments closely and more "formally" within the Bank of

Albania. Institute this "follow up" to learn from them. So far, IT in emerging economies has demonstrated very good results (IMF 2006) even somewhat superior macroeconomic performance (and reduced vulnerability to shocks) when compared to non-IT countries. But the short time period indicates the need for vigilance. In modern language, this program might have some "bugs" that have not revealed themselves as yet. And if there is a "bug" you will be better of knowing it on time (by following other's experiences). Remember that IT is not flawless. Inflation forecasts can be highly uncertain (like the output gaps). Furthermore, IT does not take into account a build up of external, current account imbalances. Those and other pitfalls of inflation targeting (see for example Ceccheti, 2003) should be examined and adequate answers found for Albania's reality.

Focus on systemic surveillance of stability of Albania's financial system. You discuss this in the paper to some degree (p.27, 2.3. financial sector development). I think this is so important that it deserves to be reiterated. To avoid possible future conflicts between "inflation focused" monetary policy and systemic problems in the financial system I would advice to create a separate financial stability unit at the BoA. This goes beyond your discussion in the paper (new banking Law, formation of a credit bureau, strengthening regulation, etc, all of which are very relevant). A sound banking system is a precondition for any monetary regime, thus for IT as well. This was my fourth advice in my concluding remarks last year (Škreb, 2005). A recent FSSA for Albania is an excellent starting point for this work. So, there is no need for immediate worry, but you should start more systemic work on stability now, as to be able to ensure a stable system for the future as well (regarding new challenges that will come). A stable financial system (and systemic action from BoA in its surveillance) is more important than the MPC or governance structure of the BoA. Or in other words, risks for the price stability are bigger from this area. So, I would recommend advocating a new financial stability department at the BoA. With this in mind, I would add formation of a financial stability unit as a separate task for the 2007 IT work.

Make your decisions based on theory and practice, on own work. You may end up confused what I stand for. But I think central bankers cannot adhere blindly to mechanical rules. We know all about central banking as an art. Therefore, this Round Table is helpful, so is other people's published work (I recommended it). You need to regularly check new theoretical developments on IT with own and other countries experiences. But the bottom line for me is that you, the BoA, need to make your own decisions and live with them. You alone are accountable to your public. I do not believe in a universal checklist of preconditions for IT or a single best IT model. Models are great, but as Checceti (2003) observed: "... central bankers earn their pay on the days when the models fail." (p. 2). What I believe in is hard work, professional judgment based on guantitative and gualitative information and objective decisions within a consistent monetary policy strategy. Good luck on this journey.

NOTES

* Marko Škreb, Former Governor of the Croatian National Bank.

¹ Fully fledged IT in the sense of Leiderman *et al.* (2006) p. 5.

² I disregard here the relative inflation and possible effects on real appreciation.

³ A time period of one year is a measurement unit due to last year's Open forum on IT.

⁴ For a definition of those concepts see IMF program with Albania from www.imf.org

⁵ It is worth noting that a similar comment was made last year during the Open Forum IMF mission report 2005 (page 1 general comment and page 5, specific comment).

⁶ I am not aware of a serious professional work on different monetary regimes in Albania.

⁷ A former Canadian central bank governor Gerald Bouey is reported saying: "We didn't abandon monetary aggregates, they abandoned us."

⁸ This does not mean that I advocate a currency board for Albania.

⁹ Pegging to the US \$ would reveal even more dramatic results. True without nominal appreciation inflation in Albania would probably be higher (via pass through), thus generating real appreciation.

¹⁰ Check ample work by Guillermo Calvo on the "fear of floating".

¹¹ On dollarization in Albania see for example: IMF Albania: Selected Issues and Statistical Appendix (2005). My view is that Albania's dollarization is higher than official figures would have it (non-measured cash).

¹² According to your statistics, the share of exports and imports of goods and services in GDP is about 70%.

¹³ Realpolitik (German: real ("realistic", "practical" or "actual") and Politik ("politics")) is a term used to describe politics based on strictly practical rather than idealistic notions, and practiced without any "sentimental illusions". From www.wikipedia.org

¹⁴ You cannot have at the same time: a fixed exchange rate,

independent monetary policy and an open capital account.

¹⁵ Googling "IT in emerging economies" will reveal hundreds of references and numerous conferences on the subject.

¹⁶ When Albania asked for the first time from the IMF TA on IT in 2001, as a resident expert I received very cynical mails from the IMF on IT in Albania. Only five years later, in Spring of 2006 the IMF Board discussed changes in TA regarding IT in emerging economies (see IMF 2006). In other words, in only five years IT has gone from "rich man's toy" to mainstream.

¹⁷ You mentioned Mishkin and Jonas work, but Mishkin (2004) and his contribution to Calvo's work may be relevant for you.

Ceccheti, G. Stephen (2003), The Pitfalls in the Practice of Inflation Targeting. Occasional Essays on Current Policy Issues No. 29. From http://people.brandeis.edu/~cecchett/pdf/ cpi29.pdf

Eichengreen, Barry (2002), Can Emerging Markets Float? Should They Inflation Target? from: www.econ.berkeley.edu/ ~eichengr/policy/nicaragua3jan22.pdf

Ho, Corrinne and Robert N McCauley (2003), Living with flexible exchange rates: issues and recent experience in inflation targeting emerging market economies. BIS Working Papers No 130. From: www.bis.org

IMF (2005), Albania: Selected Issues and Statistical Appendix. (especially chapter 1: Monetary Policy and Dollarization in Albania), from www.imf.org

IMF (2006), Inflation Targeting and the IMF. Prepared by Monetary and Financial Systems Department, Policy and Development Review Department, and Research Department, from www.imf.org

Leiderman, Leo, Rodolfo Maino and Eric Parrado (2006), Inflation Targeting in Dollarized Economies. IMF Working Paper WP/06/157, from www.imf.org

Mishkin, Frederick (2004), Can Inflation Targeting work in Emerging Market Countries? Festschrift in Honor of Guillermo A. Calvo, April 15-16, 2004, from www.imf.org

Škreb, Marko (2005), Closing remarks: Open Forum: Preconditions for Inflation Targeting in Albania. Bank of Albania. Mimeo.

COMMENTS ON: THE IT CASE IN ALBANIA. A TENTATIVE ROAD-MAP FOR IMPLEMENTING IT IN ALBANIA*

David G Mayes**

The record that Albania has achieved in maintaining price stability since setting an inflation target in 1999 has been remarkable and one which most other European countries would be pleased to achieve. Not only has inflation averaged near the middle of the chosen target range of 2-4% a year in the period but variation in the rate of inflation has also been low, largely within that two percent range. However, Albania has chosen not to label this inflation targeting, largely because the means of implementation has been through trying to follow a series of monetary targets. It is still not proposing to adopt formal inflation targeting until 2009, a full decade after the original step.

There are some other obvious reasons underlying this reluctance. The first is that Albania has not been meeting many of what have been described as the "preconditions" for successful inflation targeting. Formally adopting inflation targeting only to find that forces beyond the control of the central bank drive inflation well off the target is not the ideal way to build up confidence in a new regime. However, several of the preconditions for success in inflation targeting are preconditions for the success of any monetary policy. If a government decides to print money then inflation is going to emerge. Major supplyside shocks may be difficult to avoid. A country has to have a monetary policy however difficult the conditions it faces.

A second reason for this reluctance is that many other countries in similar circumstances have made different decisions about the monetary policy regime. Montenegro for example has adopted the euro and others have adopted an element of exchange rate targeting. Full inflation targeting is not the majority choice. Nevertheless there is a strong element of path dependence. Confidence gets steadily built up in a regime and those running it gain experience in how to cope with shocks. Changes in regime therefore tend to be major events. Credibility needs to be severely compromised to give a new regime, untried in present circumstances an edge over the existing one.

All, however, are seeking the most appropriate way to achieve price stability.

It is not clear in advance what optimal policies will be, although it is possible to point to characteristics of a country's circumstance that make particular policies an unlikely route. A simple example is that if the exchange rate appears to be more a source of shocks than means of smoothing them, then a country is better veering towards a relatively fixed exchange rate and away from the floating rate that accompanies inflation targeting. It is not immediately clear exactly what the range of feasible policies is for Albania but it does not seem very productive to explore what these might be in present circumstances, except to say that if circumstances change then there will be options for a way forward.

PRECONDITIONS

We can turn these remarks round and set out some preconditions for a successful monetary policy:

• the monetary authority needs to have necessary powers and instruments to achieve a clearly specified target;

- it needs to have the independence and incentives to make the achievement of the target plausible in the eyes of outsiders;
- it needs to have the necessary internal procedures to undertake adequate analysis and take good decisions;
- conversely, it must be judged that others who have the power to frustrate the objectives of the monetary authority, are not likely to exercise them.

I have deliberately not mentioned inflation targeting as these four preconditions apply to any monetary policy. It is their specific implementation that varies. Fixed peg and currency board systems require adequate reserves but if there is a weak relationship between the exchange rate and the price level such a policy will not achieve price stability. The same is true for the inflation target. If the central bank does not have tools that will have much impact on inflation then the chances of success will be low. In the case of euroisation it is not so much that the national monetary authority has the tools but that the Eurosystem does, although its remit is to maintain price stability in the euro area. If that does not spill over into the euroised country then again the policy will not work.

Thus, the key issue in moving to formal inflation targeting is that it is generally accepted in society as a sensible way to go. The most important stakeholders to be convinced are first of all the central bank itself and next the government of the time. However, a monetary policy regime needs to transcend the particular government and have widespread support across the legislature. If support is weak then the regime will lack credibility as people will believe that it may change and hence will hold expectations of inflation that may not reflect the target, thus making policy harder and more expensive to implement.

It is difficult to fault the way that the Bank of Albania has been going about the move to full inflation targeting. It has taken widespread advice and looked at the experience of the many countries that have already adopted inflation targeting. It has thus not only provided a checklist of whether the necessary preconditions exist but sorted out a strategy for their implementation. This includes increasing the bite of policy instruments on the economy.

The careful build up that the Bank of Albania is planning in persuading the stakeholders and society at large is clearly the sensible way to go. It is clearly essential to get an enthusiastic endorsement by the government and parliament. However, this process of endorsement has proceeded on a wider front, opening up the ideas to international comment particularly by neighbouring countries and international organisations and to independent academic assessment. Today's meeting is an illustration of that process.

It is clear that a good economic case has to be made even though the decision is ultimately political. Fortunately the central bank has had a clear mandate to maintain price stability and has been able to develop a strategy within that framework, starting with an IMF backed monetary targeting approach while it developed the tools for a more sophisticated regime.

The development of the 'tools' in the sense of the statistical, analytical and communications infrastructure is to some extent something that is internal to the central bank and difficult to present in a way that persuades others except in so far that the bank's published analyses and comments along the way appear authoritative and sensible at the time and are shown to be well founded after the event. This cannot happen overnight. The best that can be hoped for in the short run is that by adopting methods that are proven elsewhere, the central bank can acquire some of the original owner's reputation. Getting support from academics and practitioners obviously helps.

As I have mentioned in a previous presentation in Albania (Driessen and Mayes, 2005) it is possible to take good decisions and maintain price stability with relatively poor tools if policy is 'robust' and concentrates on moving in the right direction and avoids large errors. Inflation targets normally are wide enough to recover from the stream of small ex post errors that characterise even the best policies.

SEQUENCING AND THE WAY FORWARD

The Bank of Albania has now put in place many of the changes advocated a year ago for the design of the inflation target, making it continuous, for example and not simply something to be achieved by year end. However, it is not as yet clear how 'flexible' the regime is going to be in the event of shocks, particularly those which drive inflation out of the target range. Albania now has a target of inflation of 3% +/-1%. This gives a point to aim at. If that point is in the fairly near future, say a year or less ahead or if the focus on the mid-point is close then policy may end up fluctuating quite a lot. This in itself leads to complaint, so fluctuation in the instruments needs to be in the objective function along with fluctuation in inflation itself. (Well directed inflation targeting will tend to achieve adequate output stabilisation along the way.)

While it is tempting to be ambiguous about the focus, as perhaps has been the case with the Eurosystem, such vagueness is likely to come at a cost for a central bank that is not able to trade on a long successful history (as was achieved from the legacy of the Bundesbank).

The Bank is also making steady progress in the development of tools - data, indicators, staff, models, and the decisionmaking mechanism. However, it is rather more difficult to judge the success of these changes until they are seen in operation. The progressive changes in the role of the decision making committee and the information being provided for it should provide an adequate run in for the system – not a dry run as policy is effectively inflation targeting along the way and hence the risk from mistakes is at least as areat as in the fully fledged system. It is probably larger with less credibility for the regime and the other tools only in progress. Publication as with the present meeting will help but the efficacy of some systems is difficult to judge. The forecasting and policy system should be in place in 2009 with whatever indicators and models are to hand. Continuous updating thereafter would be normal even though the communication to the public would probably only face on larger changes to keep confidence.

The appraisal of most of these specific systems forms part of the rest of this roundtable, so there is no mileage in trying to prejudge the discussions, even though I have already written remarks on two of them.

Implementation is a process. While the development of the necessary legal basis and the gareement by the government are necessary preconditions, most of the other items required, while not perfect, are likely to be adequate to the task. Caution is a sensible strategy as the case of Turkey indicates. Nevertheless, at some stage inflation targeting needs to be started even if conditions are not perfect. Beyond some point delays are likely to harm credibility more than premature adoption. As the economy continues to develop so the simple monetary targeting is likely to be less effective. It is essential to improve upon it rather than let inflation (or indeed deflation) emerge as it is much more costly to change substantiated expectations of inflation than it is to reinforce expectations of continuing price stability. Delay may therefore give the opportunity for a shock that cannot be contained, hence damaging both the future and current reaimes.

Political and public approval may take some time to deliver but when they come the other steps need to be in place. Early stages in a new regime get much more attention than those in maturity – witness the focus on the MPC in the UK when it was formed, the attention placed on Ben Bernanke when he became Chairman of the Federal Reserve Board, and the wealth of criticism of the embryo Eurosystem. Despite the fact that policy operates under considerable uncertainty, it is essential that the initial steps are confident and steady. Thus far the careful approach of the Bank of Albania is providing just the sort of basis that is needed.

^{*} These remarks are made in a personal capacity and should not be attributed to the Bank of Finland or the Eurosystem.

^{**} David G Mayes, Bank of Finland and University of Auckland.

REFERENCES

Driessen, K and Mayes, D G (2005) "A Robust Approach to Monetary Policy: Monetary Policy for the EU's "New Neighbours"", "Central Banking in the Time of Integration", Durrës.

A MACRO ECONOMETRIC MODEL APPROACH FOR ALBANIA*

Elona Dushku Vasilika Kota Gëzim Binaj**

1. INTRODUCTION

Models of the economy are valuable tools for monetary policymakers for at least two reasons. First, such models can help predict future inflation, output and other variables, which are crucial for a central banker who needs to be forward looking given the lagged impact of monetary policy. Second, macro-economic models can help quantify the amount of uncertainties that central bankers face in making their policy choices particularly through the use of alternative model simulations (*Rudebusch, 2002*). However, no model is expected to be perfect as long as there are simplifying assumptions about reality (Bank of England, 2005).

In this paper we have made a first attempt to build a macroeconomic model for Albania, named the MEAM (Macro econometric Albanian model). We do this by constructing the main identities that should hold in an economy and by modeling the most important channels via these identities and behavioral equations.

We are fully aware that building a macro-econometric model for Albania is an ambitious project at this stage of the transition process. The Albanian economy is rapidly changing. National accounts and other identities should hold like in any other economy, but behavioral equations may not be very stable over time. Moreover, the identities are hampered by the lack of consistent, reliable and timely data.

Our main aim is to build an analytical toolkit for running some macro-economic and monetary scenario analyses. That should help the decision making of the Bank of Albania (BoA). First, the relevant channels should be modeled for being able to run shock-analyses and to provide and analytically discuss the responses of the macro-economic variables during policy meetings. The model presented in this paper should be considered as a first block of a building process. Many of the behavioral equations will receive further attention as better data become in order to re-analyze the relationships and re-estimate the reaction coefficients. For now, a pragmatic approach and our economic intuition still prevail. We expect the model to grow rapidly over time, a process in which a better statistical framework will be used and the economy will start settling down on a more stable path.

The outline of the paper is as follows. Section 2 explains in details the methodology applied for the model building process. Section 3 discusses data construction. Section 4 will discuss the main behavioral equations constructed for output components, policy rule, labor market and exchange rate estimation. Section 5 presents model solving. Technical details can be found in the appendixes.

2. METHODOLOGY

The macro-econometric model is intended to be used mainly for policy analyses to study the effects of possible shocks on the economy. For this reason, we focus more on the underlying structure of the economy and the longer term developments of the channels. However, it is possible to estimate a model in order to look both the long run structure and the dynamics of adjustments to short run. The main part of the model is constructed using a Vector Error Correction Model (VECM). The equations we use have a long run structure that has a justification in economic theory. Our equations take into account the two components, the long run relationship and the adjustment around the long run:

The long run relationship:
$$Y_t = \alpha + \beta \cdot X_t + \varepsilon_t$$
 (1)

This relationship is long run equilibrium and would normally be related to the behavior of actors in the economy. When the economy is out of equilibrium we need to specify the dynamics of adjustments that pull it toward the long run relationship:

The adjustment around the long run:

$$\Delta Y_t = \lambda [Y_{t-1} - \alpha - \beta \cdot X_{t-1}] + \delta_1 \cdot \Delta Y_{t-1} + \delta_2 \Delta X_{t-1} + \omega_t$$
(2)

where Y or X are variables, Δ is the change operator, $\lambda, \alpha, \beta, \delta_1, \delta_2$ are parameters and ε_t and ϖ_t are error terms. The term λ_t is particularly important in the dynamics because it is the indicator of the speed with which any disequilibrium is removed. As we will explain in more details below, we estimate single VEC equations and not systems. In this case λ_t is the indicator of the speed of adjustment while the other long run variables are not contributing to return to equilibrium. As a consequence, it will take longer to return to equilibrium.

The first step to follow when constructing a VECM is determining whether the series are non-stationary. The results of the unit root test (Augmented Dickey-Fuller) performed in levels demonstrate that the test cannot reject any of the null hypotheses that the series have a unit root. Thus, these time series are not stationary. At the second step, we test if the first differences of these time series are stationary. The test outcomes are shown in Tables 4-18 indicating that the first difference of the series can be viewed as stationary process. Following the approach of Engle and Granger¹ (1987) that a linear combination of two or more non-stationary series may be stationary, we test whether such a stationary linear combination exists. In this case, the non-stationary time series are said to be cointegrated. A Johansen cointegration test is performed for the pairs of the nonstationary series that will be used to estimate the VECM and the results are given in tables 19-24. The test is performed with and without including exogenous variables, favoring the equation with the maximum eigenvalue, generally believed to be more meaningful. If Johansen cointegration test indicates that there is a cointegration relationship, we estimate the VECM equation. We move from estimating a system to a single VECM and conclude by estimating statistically significant coefficients. The estimated equations are finally included in the system of the equations and used to create different scenarios for the macroeconometric model of Albania. For each of estimated equation we have denoted the estimation diagnostic as follows.

Absolute values of *t-statistics* are presented between parentheses below the coefficients, (-) in this case implies that the parameter was calibrated, R²-adj is the R²-adjusted for degrees of freedom, SE equals standard error of the estimate.

3. DATA CONSTRUCTION

Currently, the macro-econometric model for Albania includes over 60 variables on guarterly basis. Since a large part of the data is not available yet up to 2005, the missing values are extrapolated using the method of exponential smoothing or the observed arowth pattern. Most of the data are annual figures and have been interpolated using Lisman² method to guarterly figures. We have constructed some variables as they are not readily available. Using saving data obtained by World Bank statistics we define disposable income as the sum of consumption and saving. We use this approach because of lack of data. Another variable we use is potential GDP obtained using Hodrick-Prescott filter method. The rest of the variables are obtained by official institutions such as: GDP, its components, prices and employment by INSTAT, fiscal data are obtained from the Ministry of Finance and monetary and Balance of Payments data from the Bank of Albania. The model covers the period starting from 1996 through 2005.

4. MODEL DESCRIPTION

At this early stage of our model we have aimed to capture the basic macroeconomic relationships of the economy. While the model could be used to forecast, the main intention is to give a simple and consistent framework of how basic variables like real output, inflation, real interest rate and real exchange rate behave under different scenarios and explain the short term dynamics return to equilibrium.

The model has a demand side following from the New Keynesian theory that demand changes affect output. It consists of four key behavioural equations for consumption, investment, imports and exports. This is augmented by a Phillips curve that relates inflation to unemployment. Key variables such as interest rate and exchange rate are also endogenously determined. For the exchange rate an uncovered interest parity condition was used. The model also includes a rule for setting monetary policy interest rate based on inflation deviations and output gap, which in turn affects real interest rates. At this stage the supply side consists only of the labour market which affects wages and unemployment but not output. However, we intend to complete the model with the supply side shortly. The main behavioural equations of the model are as follows:

- I. Demand side
- a. Consumption = f (disposable income, remittances, interest rate)
- b. Investment = f (real output, nominal interest rate, inflation)
- c. Imports = f (real output, exchange rate)
- d. Exports = f (foreign demand, relative export prices)
- II. Labour market and prices
- a. Labour demand = f (real wages, real output)
- b. Wages = f (prices, unemployment, labour productivity)
- c. Prices = f (import prices, unemployment rate)

- III. Interest rate and exchange rate
- a. Nominal interest rate=f (repo rate, government expenditure)
- b. Exchange rate=f (relative prices, relative interest rate)

Main exogenous variables are: remittances, external demand, foreign prices and interest rate and import prices.

Below we give a diagram of how the model works. The white quadrates are the main blocks of the model; the light grey quadrates contain the rest of the channels that we include in the model, and the grey circle contains exogenous variables. This simple diagram not only indicates the channel we have already included but also what is missing in order to be included later.

There are several reasons we chose to start with a simple model. First, data availability and quality in the transition economies limit the space of choosing coefficients from econometric evidence. Calibrating the model simply based on theoretical grounds runs the risk of making it unrepresentative for the Albanian economy. Using coefficients from the models of other countries at a similar stage of development as Albania is an alternative we are considering.

However, neither this method does necessarily guarantee that the model will fit well the Albanian economy characteristics. Therefore, over time as we better understand how the actual model works for Albania and as more microeconomic evidence will become available from other ongoing research on different behavioural equation, we will seek to improve the actual coefficients and add other missing links. A major advantage of keeping simple models instead of more complex ones is that they can be easily re-estimated and calibrated as dictated by the needs. At this point, even though this model cannot answer all the possible questions that might arise during policy decisions, it still can be useful to analyse several situations the Albanian economy might encounter in the near future.



4.1 AGGREGATE DEMAND

In this section we try to look at individual behavioral equations and the estimated parameters of VECM.

From the demand side, GDP follows from the ex-post income identity:

 $Y = CR + I + G + (EX - IM) + CHIN + DIF_Y$

where Y denotes income, CR is consumption, I is investment, G is government expenditures, EX is exports, IM is imports, CHIN is change in inventories and DIF_Y denotes measurement errors. All the variables are in real term.

Table 1 shows the structure of the aggregate demand; it is apparent that private consumption is a major component of the demand. On average it has been at around 72 percent of GDP during the period 1997-2003. Government consumption is 11 percent of GDP, investment 37 percent, exports 16 percent, imports 37 percent, while change in inventories is only 2 percent of GDP. In MEAM, government expenditures and change in inventories will be considered as exogenous variables. The other GDP components will be estimated as endogenous variables.

1997 98.7	1998	1999	2000	2001	2002	2002	0004
98.7	100			2001	2002	2003	2004
	100	99.9	100	99.9	100	100	100
02.2	98.1	84.9	78.1	72.8	76.2	76.6	74.4
90.4	86.7	74.1	67.4	61.9	64.5	65.6	63.1
11.7	11.4	10.7	10.6	10.7	11.6	10.8	11.2
0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
24	24.9	30.4	39.3	46.2	47.4	52.6	55.1
9.5	10.6	15.5	17.5	18.2	19.3	20.3	21.8
33.5	34	31.6	37.3	38.5	43.7	44.9	44.0
-3.5	0.3	0.7	2.4	1.3	0.8	-4.6	-8.1
	90.4 11.7 0.1 24 9.5 33.5 -3.5	90.4 86.7 11.7 11.4 0.1 0.1 24 24.9 9.5 10.6 33.5 34 -3.5 0.3	90.4 86.7 74.1 11.7 11.4 10.7 0.1 0.1 0.1 24 24.9 30.4 9.5 10.6 15.5 33.5 34 31.6 -3.5 0.3 0.7	90.4 86.7 74.1 67.4 11.7 11.4 10.7 10.6 0.1 0.1 0.1 0.1 24 24.9 30.4 39.3 9.5 10.6 15.5 17.5 33.5 34 31.6 37.3 -3.5 0.3 0.7 2.4	90.4 86.7 74.1 67.4 61.9 11.7 11.4 10.7 10.6 10.7 0.1 0.1 0.1 0.1 0.1 24 24.9 30.4 39.3 46.2 9.5 10.6 15.5 17.5 18.2 33.5 34 31.6 37.3 38.5 -3.5 0.3 0.7 2.4 1.3	90.4 86.7 74.1 67.4 61.9 64.5 11.7 11.4 10.7 10.6 10.7 11.6 0.1 0.1 0.1 0.1 0.1 0.1 24 24.9 30.4 39.3 46.2 47.4 9.5 10.6 15.5 17.5 18.2 19.3 33.5 34 31.6 37.3 38.5 43.7 -3.5 0.3 0.7 2.4 1.3 0.8	90.4 86.7 74.1 67.4 61.9 64.5 65.6 11.7 11.4 10.7 10.6 10.7 11.6 10.8 0.1 0.1 0.1 0.1 0.1 0.1 0.1 24 24.9 30.4 39.3 46.2 47.4 52.6 9.5 10.6 15.5 17.5 18.2 19.3 20.3 33.5 34 31.6 37.3 38.5 43.7 44.9 -3.5 0.3 0.7 2.4 1.3 0.8 -4.6

Table1 Contribution of the components to total real GDP (%)

Source: INSTAT 2005

Private consumption. In the Albanian model we have built a simple equation for real private consumption. We assume backward looking consumption behavior, since the consumption equation involves only lagged variables (Barrell *et al.* 2001). In the long run consumption is dependable on disposable income and in the short run, there are also a number of variables that capture cyclical factors such as the interest rate. We also have included in the short run remittances as an important source of revenue in Albania (Uruçi and Gedeshi, 2003). The estimated coefficients of our equation for real consumption are as follows:

$$\begin{aligned} &\text{dlog } (\text{CR}_{\text{I}}) = *\{\text{log } (\text{CR}_{\text{I}-1}) - \beta^*\text{log } (\text{YDN}_{\text{I}-1}/^*\text{CPI}_{\text{I}-1}\} \ \cdot) + \delta_1 \cdot \text{dlog}(\text{CR}_{\text{I}-1}) \quad (1) \\ &\text{t-stat} \qquad (-3.18) \quad (-7.57) \qquad (2.62) \\ &-\delta_2^*\text{dlog } (\text{YDN}_{\text{I}-1}/^*\text{CPI}_{\text{I}-1}) \ + \delta_3^*\text{dlog } ((\text{REM}_{\text{I}-3}/^*\text{CPI}_{\text{I}-3}) \ \cdot \delta_4^* \ \text{d } (\text{IG}) \ - \text{c} \\ &(-2.18) \qquad (3.51) \qquad (-3.32) \qquad (-0.76) \end{aligned}$$

 R^2 -adj. = 0.55, SE=0.02

where: CR is real private consumption,

YDN is nominal disposable income, REM is nominal remittances in LEK and CPI denotes the index price of consumer (2001 = 100), IG is the weighted interest rate on treasury bills with different maturities.

The elasticity between real disposable income and consumption is 0.78. This means that a 1 percent increase in YDN, leads to an increase of CR by 0.78 percent in the long term. The adjustment coefficient of -0.31 indicates a high speed of adjustment toward equilibrium. One percent deviation in consumption from the long run desired level, would return to its equilibrium after a little more than 1 year. We have included the unemployment rate in the short run but it was insignificant or with the unexpected sign as predicted by theory. The direct interest rate effect on consumption is included in order to account for substitution effects. An interest rate increase in the short run would discourage consumption because of a higher incentive to save. Disposable income has an unexpected negative effect in the short run and this will need further investigation.

Investment. There are several variables that determine real investment such as total output, foreign direct investment, cost of capital, inflation, exchange rate etc. (Jorgenson 1963). As long run determinants we have included real output and nominal interest rate of 12 month bonds.

The estimated coefficients are as follows:

dlog (I₁) = - $\lambda * \{ \log (I_{1,1}) - \beta_1 * \log (Y_{1,1}) + \beta_2 0.045*b (12)_{1,1} \} + \delta_1 * dlog(I_{1,1})$ (2) t-stat (-6.24) (-303) (13.47) (10.82) + $\delta_2 * dlog(Y_{1,1}) + \delta_3 * \Delta (b(12)_{1,1}) + \delta_4 \cdot INF_{1,1}$ (2.00) (1.91) (5.37) R²-adj = 0.85, S.E = 0.03

where: I stands for real investment, Y is real output, INF stands

for inflation rate (in percentages) and b (12) is the interest rate on 12 month bonds.

The adjustment coefficient of (-0.26) indicates a quick adjustment of investment towards the long term equilibrium. More than 25 percent of the discrepancy between the actual and desired long run real investment returns to equilibrium in the first quarter. Investment is very sensitive to real output as reflected by the long run high coefficient (0.97) and nominal interest rate has a small negative impact on real investment. Short-term dynamics are mainly determined by nominal interest rates b(12), real output and inflation. Inflation growth will increase investment in the short run; however, its impact is very small.

Imports. We have modeled imports based on Bahmani-Oskooee (1998) findings, that for the transition countries import demand is determined in the long run by relative prices and real output. However, in our analysis we have used exchange rate as determinant of the long run equilibrium. Warner and Kreinin (1983) argue that in the presence of floating exchange rates imports are largely determined by the nominal exchange rate. We will use EUR_LEK exchange rates to capture this effect.

The estimated coefficients are as follows:

$$d\log(IM_{1}) = - \lambda^{*} \{\log(IM_{1,1}) - \beta_{1}^{*} \log(Y_{1,1}) - \beta_{2}^{*} \log(EUR_LEK_{1,1}) - \alpha \}$$
(3)

$$+ \delta_{1} 0.96^{*} d\log(IM_{1,1}) + \delta_{2}^{*} d\log(EUR_LEK_{1,1})$$
(22.06)

$$(-1.69)$$

 R^2 -adj = 0.97, S.E = 0.005

where: *IM* stands for real imports, *REL_CPI* is the ratio of foreign *CPI* to domestic one and EUR_LEK is the eur_lek exchange rate.

The adjustment coefficient is (-0.12), which means that 12 percent of the discrepancy between the actual and desired (long

run) returns to equilibrium in the first period. Real imports are highly sensitive to changes of real GDP than to exchange rate. Since imports account for more that 75% of trade volume it is expected that import demand is less sensitive to exchange rate compared to domestic income.

Exports. In modeling real exports we assume that domestic and foreign goods and services are not perfect substitutes. This implies that exports depend only on world demand and competitiveness captured by relative export prices. We have assumed that relative export prices and exports have unit elasticity in the long run.

The estimated coefficients of our equation, for real exports are as follows:

$$\begin{aligned} & \text{dlog} (\text{EX}_{i}) = -\lambda^{*} \{ \log (\text{EX}_{i,1} - \beta^{*} \log (\text{FRG}_{i,1}) + 1^{*} \log (\text{PX}_{\text{REL}_{i,1}}) \} \\ & +\delta_{i} (-4.75) \\ & +\delta_{i} (\text{dlog} (\text{EX}_{i,1}) + \delta_{i} (-114.97) \\ & (9.92) \\ \end{aligned}$$

$$\begin{aligned} & \text{R}^{2} - \text{adj} = 0.87, \text{ S.E} = 0.02 \end{aligned}$$

$$\end{aligned}$$

where: EX stands for real export, FRG_Y is foreign demand, PX_REL is relative export prices.

From the results the speed of adjustment is very slow, only (-0.037), indicating that it will take very long to return to equilibrium. Meanwhile, the long run elasticity with respect to foreign demand is low and short term developments are mainly determined by relative export prices.

4.2 LABOR MARKET AND PRICES

In our model we have also included a labor market, which presents the supply side. The main indicators of the labor market we model are labor demand and wages. We start with a Cobb-Douglas production function. Then we derive labor demand and wages equation. Assuming a constant elasticity of substitution (CES) the production function takes the following famous form in the two-input case:

$$Y = \tau \left[\alpha K^{-\rho} + (1 - \alpha) L D^{-\rho} \right]^{J_{-\rho}}$$
(5)

where, τ and α are production function scale parameters, and the elasticity of substitution σ is given by $1/(1+\rho)$. Y refers to real GDP, LD refers to labor demand and K represents the capital stock. If we assume constant returns to scale, then ρ and σ . We have assumed that there is no labor augmenting process. A long run labor demand conditioned on real wages (W) and output (Y) is derived by using a log-linearization of the first order condition for profit maximization (Barrell and Pain, 1997). Following the standard equality between the marginal product of labor (computed according to the CES production function) and the markup- adjusted real wage, the labor demand looks as follows:

$$\log(LD) = -\sigma \log(W/CPI) + \log(Y) + \delta$$
(6)

where δ denotes a constant and the other variables are as defined above⁴.

This means that changes in real GDP, real wages and labor demand move together.

In the short run we have included country's real activity and a dummy variable for the first quarter of 2001 (dum_LD), because starting from 2001 there is a structural break in the labor demand data. The estimated coefficients of our model, for labor demand are as follows:

The adjustment of parameter is low, only (-0.012), so one percent deviation of labor demand would return to its equilibrium in more than a year. We have found that labor demand in long run is positively related to real GDP and negatively related to real wages. Wages. We derive wages from the equation 7 and we find that wages depend on prevailing unemployment rate, UN as well as on average labor productivity, LP (Barrell et al. 2001). Suppressing the intercept term, it then holds that:

$$\log\left(\frac{W_{t}}{CPI_{t}}\right) = \log\left(\frac{Y_{t}}{LD_{t}}\right) - \beta \cdot UN_{t}$$
(8)

According to equation (8), nominal wages increase in line with prices in the long run. Also, wages are negatively related to unemployment growth, UN. The results of the business confidence surveys carried out by the Bank of Albania³ indicate that inflation and labor productivity are the main factors that determine wage developments.

During 1998 and 2002 annual growth rate of wages has been 34% with an average of 13.3%. These developments are also consistent with labor productivity performance claimed by businesses: 23 percent of the increase in productivity is reflected in wages⁴. In figure 2 we show annual growth of wages and productivity for the period from 1996 to 2005. Productivity is defined as the production to employment ratio for the whole economy. Figure 2 gives the average wage bill for all the sectors of the economy. This figure confirms the results of the survey (BoA, 2005) indicating that there is a positive relationship between wages and productivity growth.



The following result gives an estimate of the determinant coefficients of nominal wage per worker during 1996 through 2005:

$$d\log(W_{t}) = -\lambda^{*} \{ \log(W_{t,1}) - \beta_{1}^{*} \log(CPI_{t,1}) - \beta_{2}^{*} UN_{t,1} - \alpha \}$$
(9)

$$t-stat \quad (-3.56) \quad (-6.84) \quad (2.62)$$

$$-\delta_{1}^{*} d\log(W_{t,1})_{+} \delta_{2^{*}} \log(LP_{t,4}) - c$$

$$(-1.61) \quad (2.67) \quad (2.98)$$

$$R^{2} adj = 0.25, SE = 0.04$$

where: W denotes nominal wages, CPI is index price of consumer (2001=100), UN denotes unemployment rate and LP=Y/LD is labor productivity in Albania.

The adjustment coefficient of (-0.26) indicates a moderate speed of adjustment toward equilibrium, because one percent deviation of wages would return to its equilibrium in 1 year and a quarter. According to our estimates, wages depend in the long run only on unemployment rate and the consumer price index. Hence, an increase of 1 percent in the domestic CPI gives an increase of 1.8 percent in wages, while an increase in unemployment rate of 1 percent decreases the nominal wage bill by 0.05 percent. Labor productivity in the long run did not result significant; however, it influences wages in the short run after a year. This equation needs further investigation as the proper variables from the economic and econometric point of view should be included as it does not give satisfactory results.

Prices. Although our model is based on real variables, prices enter in several ways. In particular they are being used as a proxy for macro stability. We have used an equation for inflation on quarterly basis⁵ which splits CPI into two components: domestic and imported. OLS is the method used for estimating this equation. The first one is largely determined by domestic pressures while the second is influenced by import prices. Our equation will evaluate CPI developments on quarterly basis using these three main determinants.
$d\log_4(CPI_{i}) = c(0) + c(1)*d\log_4(CPI_{i,1}) + c(2)*d\log_4(IMP_54_{i}) - c(4)*d\log_4(UN_{i,2}) (10)$ (3.6) (2.0) (2.3) (-4.4)

R2-Adj. = 0.80, SE = 0.009

where: *IMP_54* denotes import prices and *UN* is unemployment rate, as proxy for domestic demand.

This estimation reflects the strong impact of import components on prices. The net impact of unemployment rate on domestic CPI is negative supporting the theoretical view on this relationship.

4.3 EXCHANGE RATE AND INTEREST RATES

Exchange rate. We estimate the exchange rate in Albania taking into account the combination of uncovered interest rate parity with purchasing power parity. Our approach follows the Bundesbank's multi-country models and Euromon's models, so the exchange rate can be written as follows:

 $Log (EUR_LEK) = c(0) + c(1)*log(EUR_LEK_{+1}) + [1-c(1)]*log(CPI/CPI_BE) (11)$

- $1*0.01*(R_AL_t-RE_t) + c(1)*0.01*[R_AL_{t-1}-RE_{t-1}]$

where: EUR_LEK denotes the exchange rate between our currency and euro, CPI is the consumer price index (2001=100), CPI_BE is the consumer price index in Euro area, R-AI and RE are respectively the interest rate of Treasury bill of 3-months in Albania and Euro area.

We have assumed a constant risk premium reflected in the unit coefficient of domestic and foreign interest rate. Assuming that exchange rate follows past developments and changes only due to alterations in relative prices and interest rate differentials, we argue that changes will be determined only by these indicators. That is, the total change in exchange rate can be decomposed in these indicators' changes summing to 1. The estimated coefficients are as follows:

$$\begin{split} & \text{Log (EUR_LEK)} = c(0) + c(1)^* \text{log (EUR_LEK}_{t-1}) + [1-c(1)]^* \text{log (CPI/CPI_BE)} \ (12) \\ & t\text{-stat} & (1.19) \quad (19.72) \\ & -1^* 0.01^* (\text{R_AL-RE}) + c(1)^* 0.01^* [\text{R_AL}_{t-1}\text{-}\text{RE}_{t-1}] \\ & \text{R}^2 - \alpha \text{dj.} = 0.81, \text{SE} = 0.04 \end{split}$$

The results reveal purchasing power differences only slowly affect the exchange rate, whereas changes in interest rate differentials influence the exchange rate immediately.

Monetary policy rule. The monetary policy instrument in Albania is the short-term nominal interest rate. The central bank sets this instrument in order to achieve a target level for inflation. However, we also assume that Central Bank reacts to output gap, which makes this a sort of Taylor rule. We now focus only on this monetary rule, which would be to change the interest rate according to the deviation of the targeted variables, such as inflation and output from its desired path. The Bank of Albania switched to indirect instruments of monetary policy in January 2001. The data used for the policy interest rate are the BoA's refinance rates prior to that date and the weekly Repo rates since then.

Following a combined rule of targeting the inflation rate and nominal targeting we would have:

$$r_{t} = \gamma_{r} \cdot r_{t-1} + \gamma_{\pi} \pi_{t-1} + (1 - \gamma_{r} - \gamma_{\pi}) \cdot \left[2 \left(\pi_{t-1} - \pi^{*} \right) + 1 \cdot ygap_{t-n} \right]$$
(13)

where: *r* is policy rate, π is inflation, π^* is target inflation, which in the case of Albania is 3 percent, *ygap* denotes output gap.

We have assumed that inflation deviation from the desired path is twice as important as gap of GDP effect on the policy rate. After estimating the coefficients, the monetary rule is as follows:

$$R = \gamma_r^* R_{t-1} + \gamma_n^* INF_{t-1} + (1 - \gamma_r - \gamma_n)^* \{2^* (INF_{t-1} - 3) + 1^* GAP_{t-5}\}$$
(14)

t-stat (23.38) (2.16) R²-adj=0.96, SE=2.02

From equation (14) it follows that γ is equal to 0.88. This means that 88 percent of the policy rate is determined by its past value. The value for γ falls between 0.50 and 1 in a typical empirically based reaction function (Berg *et al.* 2006). Deviation of the last quarter inflation value from the desired level of 3 percent, affects less than 1 percent the developments of the base rate. The output gap is significant but its impact is even smaller and with delay of more than a year.

The Taylor rule is interesting for running simulations. Under an Inflation Targeting (IT) regime, in a "pure sense", only inflation would however be targeted. So in equation (14) the last term in brackets would vanish. Under IT, it would moreover be the case that future instead of past inflation would be targeted. The monetary policy rule then becomes:

$$\Delta r_t = \gamma_{\Pi} \left(\inf_{t+4} - \inf^* \right) \tag{15}$$

where, here we assume that inflation one year ahead is targeted. We aim to use this model in the future also, for experimenting in simulations. This rule may be more realistic but is for models more cumbersome as rational expectations and model consistent expectations are involved.

Treasury bill rates. We used the Treasury bill rates as proxy for cost of capital. This is the only instrument being used in Albania. We use as explanatory variables monetary policy rate, demand for capital and inflation. Since in Albania there is no capital market except for government bonds and inter bank market, we include only the government demands as a determinant for capital. Changes in the monetary policy are expected to have a strong impact on Treasury bill rates. However, if inflation is high and risks going higher, investors will need a higher interest rate to consider lending their money. In our case we have not included inflation as an explanatory variable since the results did not follow the theoretical background.

After estimating the coefficients, the equation of treasury interest rates reads as follows:

$$\begin{split} &\Delta(IG_{\mu}) = c(0) + c(1)^* \Delta(R_{\mu}) + c(2)^* G_G rowth_{\mu,1} + C(3)^* \Delta(IG_{\mu,1}) \ (15) \\ &t\text{-stat} \ (-2.45) \ (1.91) \ (2.27) \ (3.78) \\ &R^2 \text{-adj} = 0.58, \ S.E = 1.02 \end{split}$$

where: *IG* is weighted interest rate on Treasury bills with different maturity, *G_Growth* stands for government expenditures increase in percentage and R is policy rate.

The results show that there is a positive relationship between policy rate, government expenditures growth and interest rate. So an increase in policy rate with 1 percent increases the Treasury bills rate by 0.2 percent point. A government expenditures growth by 1 percent raises interest rate by close to 0.1 percent point.

5. SOLVING THE MODEL

A model is a set of two or more equations that jointly describe the relationships between a set of variables. All the estimated behavioural equations and the identities are put together in a single object called "model". When this model is solved iteratively by using the Gauss-Seidel algorithm, a *baseline* is constructed. This set of endogenous variables that we obtain after solving the model is the deterministic joint solution.

Suppose for simplicity that we would have two estimated equations with two endogenous variables, one identity with endogenous variable, and one exogenous variable in a system as follows:

$$y_{1t} = \alpha_1 + \beta_1 y_{2t-1} + \lambda_1 x_t$$
$$y_{2t} = \alpha_2 + \beta_2 y_{3t-1}$$
$$z_t = y_{1t} + y_{2t}$$

where, the Greek symbols represent the estimated parameters. As always, the number of equation equals the number of endogenous variables. Once running a baseline simulation, we obtain a y_{ll}^{b} , and z_{ll}^{b} . It goes without saying that the exogenous variables in the baseline are not different from the actual ones.

The baseline endogenous variables will equal exactly the actual variables in case the equalities in the system hold precisely. For the identity, in our example here the third equation, naturally $z_{t_i}^b = z_t$, should hold. Estimated equations, like the first two in this system, naturally have a residual. Our model includes even these residuals, so that $y_{t_i} = y_{t_i}^b$ and $y_{2t} = y_{2t}^b$. In case one equation is missing a residual, the equality is violated and its endogenous variable feeds into other equations. As a result, the variables in the baseline will differ from the actual values.

In each scenario a shock is given to one (or more) exogenous variables, in particular policy foreign variables. To illustrate this, we assume that x_i is shocked by δ %. The first equation in our system then alters as follows:

$$y_{1t} = \alpha_1 + \beta_1 y_{2t-1} + \lambda_1 x_t (1 + \delta / 100)$$

We solve then again the model of three equations and we obtain "new" simulated values for the endogenous variables, let us say, y_{1t}^s , y_{2t}^s and z_t^s . For presenting our simulation results for this scenario we show percentage deviations from the baseline.

100*
$$\frac{x_t^b(1+\delta/100) - x_t^b}{x_t^b} = \delta\%$$
 as the shocked variable

and
$$100*\frac{y_{1t}^s - y_{1t}^b}{y_{1t}^b}$$
, $100*\frac{y_{2t}^s - y_{2t}^b}{y_{2t}^b}$ and $100*\frac{z_t^s - z_t^b}{z_t^b}$ as the responses

in deviation from the baseline to this shock.

We want to understand how the model works, how sensitive it is towards different simulation and what can be done to further improve it. This is a necessary step we want to follow in order to be confident when the model can be used for various analyses.

We are currently working on different scenarios and evaluating the results, as this will be useful to assess the performance of the model.

6. CONCLUSIONS

6.1. MODEL EXTENSIONS

MEAM is the first attempt toward creating a tool for modeling the Albanian economy. As such it will surely need further improvements. First, the model will need to be enriched will all the possible channels. We are working on including a full supply side. The monetary rule will probably need a new approach as output gap data are not readily available. Also we could use another approach for exchange rate in order to include important determinants such as remittances. And finally a detailed fiscal side will also become a part of the model as it is important to give a full view of the economy.

6.2. MODEL CONSOLIDATION

Improvement of the statistical base is the first step toward model consolidation. This can be done through updating the existing one with new information that is available, trying different methods of interpolation and extrapolation and including new variables. In case MEAM would have to become a tool for econometric forecasting or projections, the statistical framework will have to be fully reliable. Also in this case, we would have to deal with seasonal dummies. If MEAM would be used for quarterly forecasting or simulating, quarterly dummies are not so useful. Seasonal pre-adjusted data would become useful.

A completely different approach than the one we present here, would be to use empirical studies of transition countries in order to create a "benchmark" for calibrating our long term parameters. However, this would also require a good judgment on the characteristics of the Albanian economy. In this context, we could mention the case of the impact of remittances on consumption. In order to include the relevant channels for the Albanian economy, much more than a benchmark will be required. Here we could also benefit from individual studies within the Bank for different channels, using different time series methods for individual or simultaneous equations.

The future direction that we will follow will have an important impact on the characteristics of the model, its restrictions and purpose of use. * The views in this paper are solely the responsibility of the authors and should not be interpreted as reflecting the views of the Central Bank of Albania. The authors are grateful to Ms. Marga Peeters, IMF Resident Monetary Policy Advisor, Mr. Erion Luçi, Head of Research Department, Mr. Altin Tanku Deputy Director, Research Department and Mr. Ilir Vika for their helpful comments, suggestions and assistance in writing this paper. Fruitful discussions with other specialists of the Bank of Albania are greatly acknowledged.

** Elona Dushku, Vasilika Kota and Gëzim Binaj, Research Department, Bank of Albania.

¹ Engle, R. F. and Granger, C. W. J., Cointegration and Error Correction: Representation, Estimation, and Testing, Econometrica, 55, 1987.

² For further description of the interpolation method refer to Boot J.C.G., Feibes W. and Linsman, J.H.C (1967).

³ The capital demand will be derived in case physical capital stock data become available.

⁴ Consumer confidence index survey, Q4-2005, Bank of Albania.

⁵ Çeliku, E., D. Shtylla, G. Hashorva, R. Hoxholli and V. Kota, 2006, The Portfolio of Econometric Models for Inflation Forecasting at the Central Bank of Albania: Updated in 2006, Discussion Paper for the Round Table on Inflation Targeting 2, Bank of Albania. REFERENCES

Bank of England Quarterly Bulletin: Summer 2004.

Barrell R, Dury K and Holland D, "Macro-Models and the Medium Term" National Institute of Economic and Social Research, June 2001.

Berg A, Karam P, and Laxton D, "A Practical Model-Based Approach to Monetary Policy Analysis—Overview" IMF, August 2006.

Boot, J.C.G., Feibes, W. and Lisman, J.H.C. (1967). "Further Methods of Derivation of Quarterly Figures from Annual Data." *Applied Statistics*, 16, 65-75.

Business Confidence Index Survey, Q4-2003, Bank of Albania.

Çeliku, E., D. Shtylla, G. Hashorva, R. Hoxholli and V. Kota, 2006, The Portfolio of Econometric Models for Inflation Forecasting at the Central Bank of Albania: Updated in 2006, Discussion Paper for the Round Table on *Inflation Targeting 2*, Bank of Albania.

Demertzis M, Van Els P, Grob S and Peeters M, (2006), "Euromon: the Multi-Country Model of de Nederlandsche Bank", Occasional Studies, De Nederlandsche Bank.

Engle, R. F. and Granger, C. W. J., Cointegration and Error Correction: Representation, Estimation, and Testing, Econometrica, 55, 1987.

Haan L., Naumovska A, Peeters M, "A Macro Econometric Model for the Republic of Macedonia", September 2001.

Levonian, M; Rose, Kim, S and Moreno, R (1994) "Economic Review; Federal Reserve Bank of San Francisco": MEMMOD: Macro-Econometric Multi-Country Model: Deutsche Bundesbank (June 2000).

Murgasova, Z, (2005) "Post-Transition Investment Behavior in Poland: A Sector Panel Analysis", IMF Working Paper.

Rudesbuch, G (2002) "Macroeconomic Models for Monetary Policies", FRBSF Economic Letter.

Sojli, E; Istrefi, I and Gjermeni, M (2005) "Forecasting the Exchange Rate during 2004".

Uruçi E, Gedeshi I "Remittances Management in Albania" Workings papers 5/2003.

APPENDIX

Identities

```
1
    Y = CR + G + I + X - M + CHIN + DIF Y
2
    DD = Y + M
3.
    YN = 0.01 * PY * Y
4.
   CN = 0.01 * CPI * CR
5.
   GN = 0.01 * PG * G
6.
   MN = 0.01 *PM * M
7
   XN = 0.01 * PX * X
8
   IN = 0.01 * PI * I
9.
   CHINN = 0.01 *PCHIN * CHIN
10. LP = Y / LD
11. UN = 100 * (LS - LD) / LS
12. DDOM = DB - DFOR
13. GB = REV - GN
14. INF = 100 * (CPI - CPI(-4)) / CPI(-4)
15. ULC = W* LD /Y
16. GAP = (Y - YPOT) / Y * 100
17. CAB = XN - MN + INC LEKE + REM + TRN LEKE
18. YDN = CN + S
19. DY = 100^{*}(DB/YN)
20. GBY = 100^{*}(GB/YN)
21. DB = DB(-1) - GB + DIF DB
22. GIEX = (IG/100)*DDOM(-1) + FEX + DIF-GIEX
```

Table 2 Variables included in the model

Variables	Туре	Description	Source
САВ	END	Current account balance in current prices	Bank of Albania
CHIN	EXG	Change in inventories in constant prices	INSTAT
CHINN	END	Change in inventories in current prices	INSTAT
CN	END	Private consumption in current prices	INSTAT

CPI	END	Consumer price index	INSTAT
CPI BE	EXG	Consumer price index of European Union	Eurostat
CPI TRADB	EXG	Consumer price index of tradable goods	INSTAT
CR	END	Private consumption in constant prices	INSTAT
DB	END	Public debt in current prices	Ministry of Finance
DD	END	Domestic demand in constant prices	Ministry of Finance
DDOM	END	Domestic government debt in current prices	Ministry of Finance
DEX	EXG	Domestic government interest expenditure in current prices	Ministry of Finance
DFOR	EXG	Foreign debt in current prices	Ministry of Finance
DY	END	Public debt ratio on GDP	Bank of Albania
EUR	END	Lek/euro exchange rate	Bank of Albania
FEX	EXG	Foreign government interest expenditure in current prices	Ministry of Finance
FRG CPI X	EXG	Foreign CPI (export share)	IFS, IMF
G	EXG	Government expenditures in constant prices	INSTAT
GAP	END	Output gap in constant prices	Constructed
GB	END	Government balance in current prices	Ministry of Finance
GBY	END	Government deficit ration on GDP	Ministry of Finance, INSTAT
GIEX	END	Government interest expenditure in current prices	Ministry of Finance
GN	END	Government expenditures in current prices	INSTAT
1	END	Private investment in constant prices	INSTAT
IG	END	Weighted interest rate on bonds	Ministry of Finance
IN	END	Private investment in current prices	INSTAT
INC	EXG	Income in current prices	Bank of Albania
INC LEK	EXG	Income in current prices	Bank of Albania
INF	END	Inflation	Bank of Albania
LD	END	Labour demand	INSTAT
LP	END	Labour productivity in constant prices	INSTAT
LS	EXG	Labour supply	INSTAT
М	END	Imports in constant prices	INSTAT

1.451	ENID	1	INICTAT
MN	END	Imports in current prices	INSTAT
NEER	EXG	Nominal effective exchange rate	Research Department, Bank of Albania
P REL TRADB	EXG	Relative price of tradable goods	Research Department, Bank of Albania
PCHIN	EXG	Prices of change in inventories	INSTAT
PG	EXG	Prices of government expenditures	INSTAT
PI	EXG	Prices of private investment	INSTAT
PM	EXG	Prices of imports	INSTAT
PX	EXG	Prices of exports	INSTAT
PY	EXG	Prices of real GDP	INSTAT
R	EXG	Monetary policy rate	Bank of Albania
R AL	EXG	Bond interest rate 3 months maturity	Bank of Albania
RE	EXG	Interest rate EUROZONE	Eurostat
REL CPI	EXG	Relative CPI (pf/pd)	Research Department, Bank of Albania
REV	EXG	Government revenue in current prices	Ministry of Finance
SN	END	Private savings in current prices	INSTAT
S	EXG	Private savings in constant prices	Econstat
TRE USD	EXG	Express the net flow of remittances from expatriates in current prices	Bank of Albania
TRE EURO	EXG	Express the net flow of remittances from expatriates in current prices	Bank of Albania
TRE	EXG	Express the net flow of remittances from expatriates in current prices	Bank of Albania
TRN	EXG	Balance of inflow and outflow transfers in current prices	Bank of Albania
TRN LEK	EXG	Balance of inflow and outflow transfers in current prices	Bank of Albania
ULC	END	Unit labour cost in constant prices	INSTAT
UN	END	Unemployment	INSTAT
USD	EXG	Lek/usd exchange rate	Bank of Albania
USD/EURO	EXG	Usd/euro exchange rate	Bank of Albania
W	EXG	Average wage employees	INSTAT
Х	END	Exports in constant prices	INSTAT
XN	END	Exports in current prices	INSTAT
Y	END	GDP in constant prices	INSTAT
YDN	END	Disposable income in current prices	Own estimation
YN	END	GDP in current prices	INSTAT
YPOT	EXG	Potential GDP in constant prices	Own estimation

COMMENTS ON: A MACRO ECONOMETRIC MODEL APPROACH FOR ALBANIA*

David G Mayes**

Understanding the economy and in particular how monetary policy actions have an impact upon it is an essential part of any successful monetary policy, but it is particularly true of active monetary policies like inflation targeting. It is clearly helpful to have a formal framework in which to form this understanding and models, whether purely analytical or also empirical, are an important tool in this regard. Policy is also forward-looking, so models, although dependent on our experience and the empirical regularities of the past (not just in Albania but everywhere), have to help us explain what may happen in the future according to the various policies choices that can be made in the face of the various shocks that might occur.

All models will be imperfect and will only contribute to our understanding. A single model cannot be expected to answer all the questions we have in the monetary policy framework. Moreover, economic theory does not have such a consensus that it would be possible to apply a single specification that everyone would think is appropriate to the circumstances being addressed. Normal central bank practice is to have one major model that is used in preparing simulations and forecasts and to add to this in two ways: first by ancillary models that either cover particular points of detail or are more appropriate to forecasting over different horizons, and, second, by having competing explanations that are either combined in the forecasting and analysis process or deliberately used as a contrast when evaluating the outcomes. Such competing models or approaches can be produced by different teams inside or outside the bank. Considering a comparison with outside forecasters is a common approach, although there is a debate about how early in the forecasting process that is most beneficial in order to avoid a desire for consensus having an undue influence on the forecast.

The Bank of Albania's work is at an early stage but some of the characteristics are clear. It is indeed setting up a main model and already has some short-run models that it has been using for forecasting inflation up to a year ahead. It is also producing a range of indicators that help form a view of the future including a business confidence indicator. That and similar survey methods can provide soft evidence of how policy may have an impact, although respondents may say what they would like to happen rather than what they expect.

Adrian Pagan in his assessment of the modelling at the Bank of England points out that models can be described in a continuum between those primarily being statistical in character and those that are driven primarily by theory. Good policy making requires something with a helpful combination thereof. Highly statistical models, such as VARs may fit the data well and be guite good at short run forecasting but are very unsuitable for policy analysis or longer run contingent forecasts. Heavily theoretical models tend to have the opposite properties, being better suited to policy analysis, the longer -term and contingent forecasts - but less well representative of the data. Aiming at the middle may, if you are lucky, combine the best of both worlds and this is where SDGE modelling is seeking to go and central banks in Canada, Finland, New Zealand and the UK, for example, have had some success in this regard. It is, however, a complex exercise. The danger in this process is ending up with the worst of both worlds, so the model is not good at forecasting or policy analysis and is a weak representation of the economy.

The Albanian model veers towards the data end of the spectrum. It might therefore pay to go next to a highly theorydriven model. As it stands the model may meet some forecasting needs but appears to be rather poorly suited to policy analysis in a way I shall describe.

We can evaluate work so far and the plans against this yardstick of how well the modelling system is likely to deliver outputs that are useful for policy making inside the Bank and for the preservation of price stability in the wider community, both in the private sector and in government. The central bank's assessments and its indications of the way policy is likely to develop are an important input to others in their actions that affect the formation of prices.

MEAM

The Macro Economic Albanian Model (MEAM) is clearly part of a research project, that is beginning by seeing what a welldesigned approach to estimating the main relationships in the economy can deliver. The authors have decided upon an error correction format with careful attention to see that the variables included are properly co-integrated. It will ultimately be in vector format so that the feedbacks and relations across equations can be properly taken into account. It considers consumption, investment, exports and imports on the expenditure side; labour demand, wages and prices; exchange rate, monetary policy and TB rate equation.

SIZE

This is already a more complex exercise than the estimation of what could be described as the Woodford (2006) three equation approach to monetary policy, which has an aggregate supply function, a Phillips curve and monetary policy rule. However, in a small open economy, clearly the exchange rate needs to play a role, both in the aggregate supply curve and through some form of interest parity equation so that foreign monetary policy, in this case in the euro area has an impact. This would give a small model where parameter estimates are available from a number of countries and where it has been shown possible to get model properties that are in reasonable conformability with the stylised facts of the business cycle. Starting with a more complex model makes understanding more difficult.

DATA

There some serious disadvantages from the data. Not only are there only 10 years of data but most of the data are annual and quarterly data have been created by interpolation and extrapolation. Thus the model effectively has few degrees of freedom and the dynamics will be largely created by the interpolation methods. This is in addition to the careful qualifications about the quality of Albanian data over the period. Experience in other central banks suggests that where there is extensive weakness in the data a substantial dose of calibration may prove desirable, certainly until the data improve; see Black *et al.* (1996) for example.

BACKWARD-LOOKING

Although many of the individual coefficients lie within the plausible range the formulation of the model has two clear disadvantages. It is backward looking so expectations play no real role. This is unfortunate as policy which surprises should have an effect, while policy changes that are predictable should have little effect. A backward looking model will both play down the effectiveness of policy and tend to exhibit a great deal of inertia. The model will thus be weak in the area where it is needed most, namely policy analysis.

OMISSIONS

Furthermore, the model is incomplete and omits some key elements in the transmission mechanism. The public sector is a likely source of shocks and hence needs to be included. Furthermore, there is no money in the model. Policy in the past has been characterised as money targeting, so presumably this would be a useful relationship. In a Woodford-style model, this relationship would be largely redundant but very rapid monetary increases have been recorded in many transition countries and it would be unwise to assume that these numbers have no independent policy relevance. However, maybe the best way to deal with this at an early stage is to have this as a competing relationship. This latter would be consistent with the two pillars strategy of the Eurosystem. At the least, money developments are a check on policy and will have an impact if the numbers get large.

INCLUSIONS

In my own work with such small models in the euro area (Mayes and Viren, 2005, for example) I have also found that it is helpful to include asset prices in the model, perhaps only in the form of house prices. The consumption function does not contain any measure of wealth. Clearly measures of financial wealth are not aoina to be of much value in Albania at present, but housing and the ability to leverage borrowing on it as the banking system develops is likely to improve important if the other European transition economies are anything to go by. Furthermore, human wealth in the sense of future incomes is likely to have an impact. Since prospects for Albania are uncertain people are likely to revise their views from time to time and this will have an impact on current consumption. (In the Bank of Finland model human wealth has an important role to play through the pension system. Indeed that model looks very carefully at the balance between those current in the workforce and those who are dependent. Those on low incomes are constrained in their spending and ability to borrow and hence affected differently by monetary policy.)

STRUCTURAL CHANGE

A further difficulty with this approach is that structural change is somehow built in to the equilibrium relationship, rather than allowing the coefficients to vary over time. It is not clear how well such an approach works, although maybe it can be incorporated effectively into the productivity term. Given the current state of the production function, productivity is likely to be a key driver of growth in the model.

REFLECTIONS

This is only work in progress so we are unable to judge how the model as a whole works. The authors are very sensible not to spend any effort on evaluating individual equation estimates until they can use the whole model and see how the parts interact. One of the key features of such models is how well they can reproduce the dynamics of the economy and that remains to be seen. With interactions among equations the transmission channels can often work in ways not originally envisaged from the single equation structure.

There are many detailed questions we could ask. For example, households maximise utility, firms maximise profits, monetary and fiscal policy follow rules – what is the motivation of the foreign sector? Is it maximising the rate of its return on investments or what? In the current partial version it has no explicit objective. However, it seems more appropriate to encourage the Bank of Albania in its continuing work and to review it when there is a complete draft.

Only one question remains – At what point will the model be ready to be used as the heart of the policy making process? My reaction is not for a while yet but that the implementation of 2009 is consistent with developing the model far enough. Within 2007 it should be possible to complete the estimation and investigate the model properties. Then in 2008 it can revised and calibrated and fitted in to the general forecasting and policy system. Four years is a common experience, so starting in 2006 and finishing in 2009 is plausible.

However, the most important features to be incorporated will be placing the model in the complete forecasting and policy analysis system so that the information it provides can be

interlinked with the rest of the information the Bank of Albania has to hand. In presentation, both to decision makers and in explaining the decisions outside the Bank, the emphasis will be on the explanation and not on the model per se. While from time to time it may be appropriate to talk about the model, conclusions cannot be blamed on it "... the model says ..." the analysis is the responsibility of those making it and they have to decide how to rate the input from the model in the total picture. As far as possible, having an information system that sets up how information is to be combined, is valuable and not merely helps speed up the forecasting and analysis process but enables consistency from one period to the next and easier learning. This work on putting the system together is likely to be more time consuming and burdensome than the construction of the model itself and is unfortunately often viewed as a less alamorous activity.

^{*} These remarks are made in a personal capacity and should not be attributed to the Bank of Finland or the Eurosystem.

^{**} David G Mayes, Bank of Finland and University of Auckland.

REFERENCES

Black, R., Cassino, V., Drew, A., Hansen, E., Hunt, B., Rose, D. and Scott, A. (1997), "The Forecasting and Policy System: the Core Model," Reserve Bank of New Zealand Research Paper 43.

Mayes, D and Viren, M (2005) "Monetary Policy Problems for Currency Unions: Asymmetry and the Problem of Aggregation in the Euro Area', Economic Modelling, vol.22(2), p.219-251.

Woodford, M (2006) "How Important is Money in the Conduct of Monetary Policy?", presented at "The Role of Money: Money and Monetary Policy in the 21st Century", ECB, Frankfurt, November.

COMMENTS ON: A MACRO ECONOMETRIC MODEL APPROACH FOR ALBANIA*

Gülbin Şahinbeyoğlu**

I. INTRODUCTION

It is a great pleasure to be invited to participate in the second round table discussion of Inflation Targeting (IT) in Albania. As Turkey is perhaps the most recent member of the IT club, I hope our experience so far will shed some light for Albania in facing the challenges that now lie ahead.

I wish to base my comments on three perspectives: First, I will try to offer a general evaluation of the role of macroeconometric modeling in an IT framework. Second, I will try to give more specific comments on the Central Bank of Albania (BoA)'s proposed model. Finally, I will conclude with areas of possible improvement, trying to draw on the Central Bank of Turkey's practice in this area.

II. WHY IS MACROECONOMETRIC MODELING A REQUIREMENT IN THE IT FRAMEWORK?

Inflation targeting is becoming a common choice of monetary policy framework for a growing number of emerging market and developing countries. Currently, twenty-four countries can be classified as inflation targeters, of which 7 are industrial and 17 are emerging countries.¹ Among these, Turkey has been just included in the list with the number 24, and Albania has stated its plan to be an inflation targeter in the near future, approximately 3-5 years time.

The initial conditions in support of an inflation targeting framework for emerging countries have been quite extensively discussed in the literature. And, there seems a consensus on the requirements countries should meet for a successful launch of inflation targeting. For example, Jonas and Mishkin (2003) lists the prerequisites as follows:

The presence of:

- a strong fiscal position;
- a well understood transmission mechanism between monetary policy instruments and inflation;
- a well-developed financial system;
- central bank independence and a clear mandate for price stability;
- a reasonably well-developed ability to forecast inflation;
- absence of nominal anchors other than inflation; and
- transparent and accountable monetary policy.

Having a well-developed ability to forecast inflation is not the most important condition for an emerging market economy: this comes some way down the list. Hence, features special to emerging market countries, such as data shortfalls, ongoing structural changes, as well as vulnerability to external shocks are common challenges to preparing statistical models. Therefore, there is a need for such countries to rely more on judgment in forecasting and policy decision-making. Moreover, the nature of model building itself is also a further constraint, since model building is a lifelong process and always subject to improvement. Therefore, even if the staff of the central bank is well-qualified and experienced in model building, there will always be better techniques available and further areas to develop in their forecast models. Carare et al. (2002), for example, point out the lack of "hands-on" experience in working with forward-looking models of inflation, gathering qualitative information on economic conditions, providing expert judgment on the inflation outlook and the appropriate policy response as possible weaknesses at the start of using forecast models in IT framework.

Even though there are limits to building a macroeconometric forecast model for emerging market countries, it is still very useful to start this process, as we have done in Turkey. Doing so does not only create a technical device with which to make forecasts, but it also puts in train institutional changes that can also improve the conduct of monetary policy –through technical improvements and enhancing teamwork within the monetary policy team. These changes include: (i) setting up a broad database which is systematically updated, (ii) preparing briefings and reporting to the decision-making authority on the conjunctural assessment, (iii) producing regular reports, and (iv) providing the forecasts. All in all, this process can be seen as part of a "forecasting and policy analysis system (FPAS)". The core model, being the main part of FPAS, provides a common language in which the central bank's staff and the decision-making authority can discuss the economic stance and the related monetary policy response, and eventually explain monetary policy actions to the public.

Laxton and Scott (2000), for example, list the benefits of employing FPAS, apart from their use in the making of forecasts, as follows:

- Communication between the parties involved in the forecast and the policy debate can be improved, and thus, lead to important synergies and the continual improvement of the best collective view;
- risks in the forecast can be debated in a more structured way and lead policymakers to focus on key policy issues;
- the database of the historical forecasting record may inform research;
- highly specialized human capital can be developed;
- institutional knowledge about the monetary transmission mechanism and the effects of disturbances that affect the

economy can be formed; and

• higher transparency about the monetary policy and how the forecast is developed will be possible.

The current monetary policy framework in the BoA is a reserve money program with quantitative targets set in consultation with the IMF. Additionally, there is a pre-announced end-year CPI inflation target of 3 percent with a +/-1 percentage point tolerance band. The weekly repo rate is set as the main policy instrument to achieve this goal of price stability. The flexible exchange rate regime is maintained. On the institutional front, the BoA has already set a team of economists on its staff, which assist a central decision-making authority, the Supervisory Council (SC).² So, in a way, the current formation of the Bank is already in line with IT guidelines and is appropriate to initiate an FPAS project. In fact, the attempt in this paper to build a macroeconometric model for the Albanian economy can be considered as initial steps on the way to a comprehensive FPAS project.

III. COMMENTS ON MEAM

The paper by Dushku *et al.* (2006) is a first attempt to build a macroeconometric model for Albania, the so-called MEAM (Macroeconometric Albanian Model). Although the authors admit that this effort is quite ambitious, given that the country faces a rapidly changing structure as it makes the transition to a market economy, and that the quality of statistics is quite low, it should still be considered as a highly welcome initial effort.³ This paper also signals the determination of the BoA to switch to formal inflation targeting regime and its efforts in fulfilling the technical requirements before the launch.

In my comments, I will review the transmission mechanism embodied in MEAM, and then by briefly referring to the individual transmission channels, suggest possible extensions available for the Albanian economy.

III.1. TRANSMISSION OF MONETARY POLICY: FUNDAMENTAL TRENDS IN THE ALBANIAN ECONOMY

The first step in implementing MEAM should be to develop a reasonably clear view about the monetary transmission mechanism as well as the major shocks that influence the economy and the inflation. The fundamental role of the decisionmaking authority has to be clarified as well. In that context, the quarterly forecast model should cover the idiosyncratic features of the Albanian economy and be designed as a simple, yet wellstructured, tool to deal with the basic medium-term features of the transmission mechanism of monetary policy.

Unfortunately, the paper does not discuss the fundamental trends that underlie economic development in Albania, which is crucial to set the spirit of the transmission mechanism embodied in MEAM. What can be these main trends? A short list can be summarized as follows: (i) the transition of the Albanian economy from the low income to middle income group, (ii) the significant impact of large remittances in this catching up process, (iii) growing import and export shares in real economic activity, and hence more pronounced expenditure switching effects between Albanian and foreign goods as well as pass-through of nominal exchange rate fluctuations, (iv) desire to adopt full-fledged inflation targeting, and hence, to endogenously affect inflation expectations formation, and (v) aggregate demand management through the real interest rate channel as the interest rate becomes the main policy instrument.⁴ The paper should try to relate the model to these changes in the Albanian economy.

III.2. TRANSMISSION OF MONETARY POLICY: STANDARD CHANNELS

The transmission of monetary policy from the central bank interest rate to inflation functions through various channels:⁵

• Appreciating the nominal exchange rate, which quickly

lowers the price of imported goods in domestic currency, and thus, decreases inflation;

- Increasing the cost of borrowing, and thus, dampening investment and consumption, and widening the output gap;
- Affecting market-determined long-term interest rates, depending on bond market participants' expectations of the path of the future policy rate;
- Affecting real interest rates, through market-determined rates and/or changes in the time profile of inflation expectations;
- Influencing unemployment through changes in the real interest rate and its effects on aggregate demand and the output gap;
- Influencing the inflation rate through channels summarized by the Phillips curve linking changes in the output gap and unemployment.

III.3. MEAM: ARE THERE AREAS TO IMPROVE?

This framework forms a benchmark for evaluating the embodied transmission mechanism in MEAM. In this context, the following issues can be considered as further areas to develop:

- The exchange rate appears to be a dominant variable, having both direct and indirect effects on consumer inflation. In MEAM, any monetary policy induced interest rate change feeds into exchange rate change through UIP equation. However, the direct impact of this change on tradables has been ignored –import prices are one of the exogenous explanatory variables. The exchange rate pass-through on CPI, setting the appropriate lag structure, has not been modeled.⁶
- Including the credit channel appears to be a key extension to MEAM, especially taking into account recent developments in the Albanian economy.⁷ Foreign currency denominated credits account for more than two-thirds of total credit volume; therefore, exchange rate changes

should have a strong impact (including through balance sheet effects) on consumption and investment decisions in the Albanian economy. However, in MEAM there is no link set between exchange rate changes and domestic demand.

- Remittances are an important source of foreign exchange inflows in the Albanian economy, financing almost twothirds of the trade deficit. In MEAM, remittances are estimated to be positively related with consumption demand, but do not determine investment demand. However, they are also considered as a major source of housing demand in Albania; therefore, it seems they should be included in investment demand equation.
- Expectations management is an important tool in the IT framework; thus, it would be good if this could be incorporated into MEAM. This could be a crucial extension given the near-term intention of the BoA to switch to IT. (ie. expected inflation should be included in the CPI equation, which would have weighted average of forward and backward looking components).
- The model uses several definitions of the interest rate in various equations, ranging from weekly to annual maturities.⁸ However, there is no interest rate pass-through equation linking short-term (policy rate) and long-term interest rates (market-determined rate, depending on bond market participants' expectations of the path of the future policy rate). This market expectations channel should be integrated to drive long-term interest rates, and real interest rates. Additionally, it would be good if the country risk premium was quantified (ie. proxied by JP Morgan EMBI+ series) and integrated.
- As mentioned in section III.1, for emerging country cases, which are in transition and face a catch-up process with higher income countries, there are fundamental trends underlying economic developments, which could be taken into account as trend variables, as they may influence the functioning of monetary transmission mechanism in medium-term. In the context of MEAM, these trends may relate to the real appreciation of the lek,⁹ the potential

output level -implied by the higher productivity of labor and more capital intensive structure of production, and the country's risk premium which is likely to decline gradually throughout the catching up process.

 Although the paper provides a theoretical section on model solution, the simulation results of the responses to certain shocks have not been presented. Presenting these response functions would provide better insight for judging MEAM's ability to explain the effects of monetary and fiscal policy (especially monetary policy on inflation, which is central to successful IT), and thus for possible extensions to improve the model. It might also have been good to present charts comparing actual and fitted values, to assess the ability of the equations to capture past economic performance.

IV. CONCLUSION

The BoA's effort to initiate a forecast model study is a welcome effort as it demonstrates its willingness to fulfill the required technical development before the launch of the formal IT framework, which is the ultimate goal of the Bank. However, being a transition country, Albania exerts a challenging case to run statistical models. Both the BoA staff and the decision-making authority are aware of the limitations of these models.¹⁰ The data shortfalls, ongoing structural changes, difficulties in assessing future developments in exogenous variables, uncertainties in the monetary transmission mechanism, and short modeling experience are among the main difficulties.

Nevertheless, the BoA does not expect to use MEAM results as official forecasts of the Bank before 2008. But, there is an intent to publish the model details at the launch of IT. However, as the experience from many central banks suggests, including our own experience at the Central Bank of Turkey, a period of testing may be needed before the model is made public.¹¹ And, unfortunately, for the model to mature can take a long time. In the meantime, the core model may serve as a basic tool for leading policy-making discussions; however, the decisions will still be subject to judgment to a great extent. Therefore, it may be best to announce only the official forecasts initially, and to share some qualified information about the model dynamics with the public. This has been the practice we have followed, more or less successfully, at the Central Bank of Turkey, as we have set out on inflation targeting.

It may also be a worthwhile effort to use, at least as a supplement, a calibrated model rather than one which is purely econometrically estimated, preferably one developed for a transition economy. To confirm its validity for the Albanian economy, the benchmark model can be re-calibrated based on the underlying trends of the Albanian economy. In that respect, MEAM will definitely assist in re-calibration process. In this way, the challenges stemming from the lack of data and the uncertainty inherent in the transmission mechanism of monetary policy can be partly eased by benefiting from other countries' experiences, as embodied in the parameters of a calibrated model. Furthermore, there should also be satellite models and/or supplementary research constantly feeding into the core model. Analyses of expectations formation, the exchange rate pass-through on inflation, estimation of the output gap or the relationship between market-based interest rates and the policy rate are some of the possible research topics that could enrich the model dynamics of MEAM.

NOTES

* Views expressed are those of the author and do not necessarily represent the views of the Central Bank of the Republic of Turkey. I would like to thank Ahmet Kıpıcı, Cengiz Cihan and Cihan Yalçın for their useful comments. The usual disclaimer applies.

** Gülbin Şahinbeyoğlu, Deputy Director, Research and Monetary Policy Department at the Central Bank of the Republic of Turkey.

¹ IMF (2006a) reports inflation targeting countries as of 2005. Turkey adopted formal inflation targeting in 2006.

² See Themeli and Kolasi (2006) for a detailed discussion.

³ Official statistics need to be improved to serve as a reliable basis for policy-making and program design. National accounts and the balance of payments statistics contain significant weaknesses. Moreover, the lack of timely labor market data continues to hinder monetary policy analysis (IMF, 2006b).

⁴ Currently, the BoA is using indirect monetary policy instruments to curb the rapid growth of private credit. These are prudential measures aiming improvement of credit quality and, more broadly, the soundness of the fast developing banking system. Together with active communication to promote selfrestraint by commercial banks, the BoA also expects that these measures would also slow credit growth by increasing effective lending costs (IMF, 2006b).

⁵ See Carare *et al.* (2002) and Laxton and Scott (2000) for a detailed discussion.

⁶ Low food prices and the appreciation of the lek following the elections kept tradables inflation in check, masking the steady pickup in non-tradables inflation (IMF, 2006b).

⁷ The BoA states that current price pressures are largely demand driven and arise from the rapid growth of credit. Market-based monetary policy instruments will be key in controlling inflation. However, considering the limited effect of policy rate changes on credit demand, the temporary use of direct instruments for preserving price stability may be also considered as a last resort (IMF, 2006c).

⁸ In consumption equation, IG is the weighted average of

interest rates on Treasury bills with different maturities; in investment equation, b(12) is the interest rate on government bonds on 12-month maturity; R-AI is the interest rate of Treasury bill on 3-month maturity in UIP equation; and in monetary policy response function, R is the policy rate which is the weekly reported.

⁹ Analyses of IMF staff and Albanian authorities suggest that an annual REER trend appreciation of about 11/2 percent is broadly consistent with rapid productivity growth (IMF, 2006b).

¹⁰ Themeli and Kolasi (2006).

¹¹ This is also confirmed by other country practices. Since, there are only few central banks publishing official forecast models. Some are Bank of England, Bank of Canada, Bank of Thailand and Bank of New Zealand. Emerging countries including Poland, Czech Republic, Brazil, Mexico and Turkey did not provide forecast models at launch of IT. Carare A., A. Schaechter, M. Stone and M. Zelmer (2002): "Establishing Initial Conditions in Support of Inflation Targeting," IMF Working Paper 02/102, (Washington: International Monetary Fund).

IMF (2006a): "Inflation Targeting and the IMF," Prepared by Monetary and Financial Systems Department, Policy and Development Review Department, and Research Department, Approved by Mark Allen, Ulrich Baumgartner, and Raghuram Rajan, March 16, 2006.

IMF (2006b): "Albania: 2006 Article IV Consultation, Staff Report," IMF Country Report, No: 06/286, July 2006.

IMF (2006c): "Albania: Letter of Intent, Memorandum of Economic and Financial Policies, and Technical Memorandum of Understanding," July 14, 2006.

Jonas, J. and F. S. Mishkin (2003): "Inflation Targeting in Transition Countries: Experience and Prospects," NBER Working Paper 9667, April 2003, also available at: http://www.nber. org/papers/w9667.

Laxton, D. and A. Scott (2000): "On Developing a Structured Forecasting and Policy Analysis System Designed to Support Inflation-Forecast Targeting (IFT)," Paper presented at the Inflation Targeting conference held at the Central Bank of the Republic of Turkey, Ankara, October 19-20, 2000.

Themeli, E. and G. Kolasi (2006): "The IT Case in Albania: A Tentative Road-Map for Implementing IT in Albania," Bank of Albania Discussion Paper for the Round Table on Inflation Targeting 2.

THE PORTFOLIO OF ECONOMETRIC MODELS FOR INFLATION FORECASTING AT THE BANK OF ALBANIA

Evelina Çeliku Diana Shtylla Gent Hashorva Rajna Hoxholli Vasilika Kota*

ABSTRACT

This paper builds upon a previous paper titled "Inflation Forecasting at the Central Bank of Albania" (2005). The objective of this paper is to present the evolution of the set of the econometric models used for inflation forecasting at the Bank of Albania. Three monthly and three quarterly models are in use since the second quarter of 2005. In light of the recommendations of the Open Forum "Preconditions for Inflation Targeting in Albania" (2005), the models were re-estimated using longer time series and were partly revised. In this process, we searched for data on the most plausible channels through which explanatory variables affect headline inflation.

Although at the core the models remain basically unchanged, a few exogenous variables have been fine-tuned in order to better capture characteristics of the Albanian economy. The results of the stability tests for the coefficients indicate that most of the parameters are stable over the estimation period. The evaluation of the forecasting models is an ongoing process and will be conducted periodically at the central bank of Albania.

1. INTRODUCTION

The primary objective of the Bank of Albania (BoA), as stated in the Law "On the Bank of Albania", is to achieve and maintain price stability understood as low positive annual inflation rates. The BoA as the monetary authority in Albania designs and implements the monetary policy of the country in pursuit of its primary objective. The BoA sets the base rate (the repo rate) so as to keep annual inflation at or near the 3 per cent level in the short-run i.e. within the next 12 months. Due to the forward looking nature of the monetary policy, the decision-makers within the BoA must be provided with a set of inflation forecasts on which they can base their judgement and decisions regarding the base rate. The forecasts must also be available to the public so that people can understand what the central bank is doing and what the monetary policy is aspiring to achieve. As the BoA prepares to officially launch the Inflation Targeting strategy in the near future, the process of inflation forecasting takes on areater importance with every BoA report. Inflation forecasting models are not only useful for forecasting. Along with the Albanian macroeconomic model, they can be used to better understand the dynamics of the Albanian economy.

The work for forecasting inflation at the BoA started a few years ago with simple monthly ARIMA models. Gradually, the models were expanded and the forecast horizon was extended from 3 months to 6 months and eventually to 12 months. In the meantime, efforts were made to construct alternative models that could be used to forecast headline inflation not only on a monthly basis, but also on a quarterly basis.

The first quarterly model related CPI growth to lagged values of CPI growth, lagged values of narrow money M1 and the nominal value of Lek/euro exchange rate. Two other models were independently constructed by the BoA staff based on the inflation of four CPI basket groups and on the concept of core inflation. At the end of Q1-2005 the BoA owned two sets of three models (one set for each frequency) and the forecasts obtained from these models were gradually incorporated in the monthly monetary policy reports. A first technical paper prepared as a background material
for the Open Forum (December 2005) introduced all original models and the main findings. The period between the first quarter of 2005 and the third augrter of 2006 is considered as a testing period for the performance of the forecasting models (see Kota et al., 2006). The monthly models were re-estimated at the beginning of each month and the quarterly models at the beginning of each augrter. The models in their current form (as of second augrter 2006) are compared to the models presented in the first paper "Inflation Forecasting at the Central Bank of Albania", 2005. The purpose of this paper is to show in what ways the models currently in use are similar to the original models and what has been done to improve the quality of the forecast. Although in our opinion there are no fundamental differences between the original models and the updated ones, for transparency reasons, it is important that the BoA publishes the inflation forecasting models in the form of a periodical technical document.

Below we give a brief overview of the main differences between the originally estimated models and the re-estimated and updated models. The set of exogenous variables has been modified. The import price index and the nominal effective exchange rate series are recalculated. The reconstructed series are believed to be more meaningful from the economic point of view. The total fiscal expenditures were divided into current and capital expenditures because there is evidence that the two series behave differently over time. On several occasions, the lag length of the explanatory variables was altered, leading to improved explanatory power of the models. However, these changes were not always supported by a consistent economic story. They were mostly based on the results of Akaike Information Criterion and Schwarz Criterion. In the re-estimation process the M1 variable was replaced by the M3 variable as the latter improves the models significantly. This change is also motivated by new developments in the banking sector during the last two years. The unemployment rate remains significant in all models even after repeated estimations. This fact indicates that a Phillips curve-type of relationship between unemployment and inflation is present in Albania. As regards one of the forecasting models based on the core and non-core inflation series, we envisage exploring other alternatives in the future. This task is motivated by the need to present more appropriate and more transparent measures of the core inflation to the public.

The rest of the paper is organised as follows. In section 2 we present the revised models for headline inflation, on monthly and quarterly basis. In section 3 we explain the revised monthly and quarterly models, by a VAR approach. Section 4 presents the forecasting model of headline inflation, based on the core and non-core concept. In section 5, we present the results of the stability tests for the coefficients, in order to trace their evolution, as the estimation period was extended. Section 6 concludes by summarizing the most important issues related to the process of forecasting inflation for the period between Q2-2005 and Q3-2006.

Inflation Forecasting Models at the BoA: 2005-2006

All data used in the models are annual i.e. we use year-onyear changes for monthly and quarterly data series. Stationarity of the variables is needed to avoid the risk of spurious regression results. As all the variables are I(1), they had to be transformed into first differences of the logarithmic form, to become stationary as we explained in the (Çeliku et al., 2005). In order to improve the models we tried to include other explanatory variables in the reestimation process¹. Variables such as GDP and output gap and indices obtained from the business and consumer surveys, did not prove significant in explaining past inflation developments. However during 2005-2006, we used information from surveys, for making assumptions and judgments that are indispensable in the forecasting process.

2. FORECASTING HEADLINE INFLATION

2.1. FORECASTING HEADLINE INFLATION ON A MONTHLY BASIS

From a combination of the simple linear model and the ARIMA model, we obtained the following linear model:

$$DLOG_{12}(CPI_{1}) = -0.007 + 0.70 DLOG_{12}(CPI_{1-1}) + 0.28 DLOG_{12}(CPI_{1-6}) + (-1.7) (11.1) (4.2)$$

$$0.04 DLOG_{12}(M3_{1-16}) - 0.05 DLOG_{12}(NEER_{1-1}) (-2.5)$$

$$- 0.05 DLOG_{12}(UN_{1-2}) (-2.2)$$

$$R2-adj = 0.75, SE=0.008 (1)$$

The monetary aggregate M1 is replaced by M3 – broad moneyas the latter represents a more stable indicator for money demand in our economy, mostly due to developments in the banking system during the last two years. This argument is supported by stability test results of parameters regarding M1 and M3.

Box 1 Headline inflation and monetary aggregates

The analysis of monetary aggregates is particularly important in the forecasting process due to the relationship between monetary variables and inflation. Under financial deepening and the enhancement of the banking system intermediation in Albania, less liquid monetary aggregates tend to be more stable. Thus, liquid aggregates (that is CoB and M1) respond much quicker to short-term developments, while less liquid aggregates (M3) show main trends for medium-term developments with a longer time lag. Thus, M3 is more stable over time than M1, which reflects temporary (short-term) developments on inflation. The conclusion regarding the comparably higher stability of M3 is supported by some preliminary results in an ongoing study focused on the stability of the demand for money (Tanku, A., 2006).

In addition, the strategies developed by the largest banks in the country dominating the banking system as reflected in bank liabilities, affect the structure of monetary aggregates. Hence, the considerable shift of bank deposits from non-liquid deposits to more liquid ones, as a result of the strategies followed by several banks, changed the share of M1 to other money aggregates altering monetary characteristics displayed by M1 in the past. The growth of M1 aggregate resulting from the changes on the commercial banks' strategies, to bank deposits which do not reflect the money demand for liquid assets became insignificant for explaining the inflationary developments in economy. The monetary aggregate M3 is one of the explanatory variables that determine the future developments of headline inflation (see equation 1).

In order to identify other economic variables that explain inflation developments, since August 2006, we re-estimated the monthly headline inflation model including the unemployment rate as an additional exogenous variable. As in other models presented in the (Celiku et al., 2005), we identify a negative relationship between inflation and unemployment rate. supporting the presence of a Phillips curve-type in the economy. As regards the behavior of the other explanatory variables, we conclude that the exchange rate remains one of the key determinants of inflation in Albania, as is the case in small open economies explaining external inflation pressures on the headline inflation. The persistent negative relationship between inflation and the exchange rate variable, which contradicts economic theory, implies that depreciation of the exchange rate depresses inflation. This result is in line with conclusions of several studies. However, the investigation of this relationship requires further research in the future

2. 2. FORECASTING HEADLINE INFLATION ON A QUARTERLY BASIS

The estimation and the forecast evaluation results obtained from the quarterly models suggest that these models can help monetary policy decision making for opening the BoA forecasting horizon to future challenges. For the estimation and forecasting period of 2005-2006, the most suitable among the models presented in the (Çeliku et al., 2005) is the following:

$$DLOG_{4}(CPI_{1}) = 0.01 + 0.29 DLOG_{4}(CPI_{1.2}) + (3.9)^{(2.5)} + 0.36 DLOG_{4}(IMP_{54_{1}}) - 0.14 DLOG_{4}(UN_{1.2}) + (2.5)^{(2.5)} + 0.78, SE = 0.008$$
(2)

The revised model is again based on a Phillips curve-type of relationship between inflation and unemployment. At the same time, the model includes the relationship between imported inflation and headline inflation in Albania. The unemployment rate and the import price variable do a good job in explaining respectively the domestic and external pressures on headline inflation in Albania. The results are in line with the economic theory. The inflation rate is negatively related to the unemployment rate (see equation 2).



The Phillips curve provides us with a good economic rational, capturing the positive linkage between inflation and economic activity. Thus, the price change is negatively related to unemployment rate. For the Albanian case the text book cobweb appears when using the annual changes of the unemployment rate, as is presented in chart 1. So apparently there was a trade-off between inflation and changes in unemployment, implying e.g. that growth rate of unemployment went down at the cost of inflation. Over the last seven years from 1999Q1 until 2006Q2 this resulted in lower changes in unemployment and a lower rate of inflation. The inflation dropped from 4 per cent in 1999 to 2.7 per cent in 2006 whereas the rate of change in unemployment fell from 14 per cent to -3 per cent. Due to the inclusion of the reconstructed proxy for imported inflation, we obtain a higher elasticity coefficient for import prices than in the previous headline inflation model. The findings indicate that import prices push inflation upward and the effect takes place within the same quarter. From the economical point of view we would expect the domestic inflation to lag behind the import price variable. But in the Albanian economy the share of imported items in the CPI basket is considerable (INSTAT, 2004). As a result, changes in import prices may trigger changes in headline inflation within the same quarter.

Box 3 The differences between two proxies constructed for import prices of Albania

As the Albanian economy is strongly import-oriented, we would expect developments in exchange rates and export prices of the trading partners to affect headline inflation in Albania. A good indicator of import prices, that would combine foreign export prices and exchange rate movements, is not available. Therefore, we attempted to construct two different proxies for import prices.

The first proxy was constructed using consumer price indices of Albania's two main trading partners: Italy and Greece. The economical reason behind this is that about 80 per cent of imports to Albania originate from Euro zone countries and mainly from Greece and Italy. The proxy for import prices was constructed combining the two CPI indices into one single index using normalized weights of import shares from the two countries and the exchange rate Lek/Euro. In constructing this proxy (a) we assumed that our imports are originated only from Italy and Greece; and that (b) the foreign trading partners CPI's baskets are similar to that of Albania. In fact, the CPI baskets of Italy and Greece contain more items than Albania imports from these countries; (c) in addition we assumed that the CPIs of Italy and Greece could be treated as proxies for their export prices. As a matter of fact, export and consumer prices differ from one another due to the transport costs, customs fees, production prices and different fiscal policies applied for different countries.

In the course of 2006 efforts were made towards constructing an

alternative series of import prices. To this end, we used shares of traded items in the separate CPI subgroups provided by the INSTAT. This information is available for 54 sub-items of the CPI basket and the weights were compiled in 2004. The weights of traded items within the subgroups were combined with their respective indices to obtain an aggregate index labeled import prices index. This procedure does not require additional assumptions as in the case of the first proxy. On the other hand, the weights of the traded/imported items were kept fixed throughout the estimation/forecast period for lack of more recent information. This proxy is considered as more straightforward than the previous one as it uses direct information and is closer to the Albanian CPI than the series obtained using foreign CPIs.

Further research will be dedicated to the investigation of the relationship between foreign export prices and movements in the Albanian price level.

3. FORECASTING INFLATION GROUPS

This section explores a method of inflation forecasting using separate groups of the CPI basket. The idea behind it is to test the assumption that developments in the aggregate price index of a specific group of the basket, influence or trigger changes in the price indices of the other groups of the same basket. The econometric estimation method applied is the Vector Autoregressive Regression (VAR) approach, as is common for forecasting systems of interrelated time series and for analyzing the dynamic impact of random disturbances on the systems of variables. The VAR approach sidesteps the need for structural modelling. Our VAR system consists of three separate equations. The CPI-components are the dependent variables, so they are of the same nature and are believed to influence one-another. For this reason, Seemingly Unrelated Regressions (SUR) is applied instead of Ordinary Least Squares (OLS). Box 4 Breakdown of CPI into Four Groups

The Albanian CPI as measured by the INSTAT is an aggregate index of 12 separate indices of 12 subgroups. Four new groups were generated that follow economic logic and are easier to explain and forecast through one-another and other exogenous variables. These groups are: imported goods, services, arranged prices and other (domestically produced) goods².

9		
	CONSTRUCTED GROUPS	Weights (%)
А	Imported goods	38
В	Services	31
С	Arranged prices	16
D	Others	15

Table 1 The CPI's groups and their respective weights

The 4-group breakdown enables us to analyze the contribution of the inflation of each group to total annual inflation on a monthly and on a quarterly basis. From chart 4 evidently follows that the group of arranged prices has played an important role in determining the profile of the headline inflation throughout the period under analysis, despite having the same share as others. While services and arranged prices recorded positive inflation rates and thus continuously exerting upward pressure on headline inflation, prices of imported goods sloped upwards as well as downwards.



We believe that there is room for improvement in the construction of economically meaningful CPI subgroups. The final goal will be to create sub-indices that can be better employed in the forecasting models and that can better capture inflation dynamics in the Albanian economy. Forecasting the inflation of the arranged prices group using the economical information is difficult, because it depends mostly on administrative decisions. For this reason, this group is not estimated within the econometric model. It is though included in the final step where the total estimated CPI index is constructed and compared to the actual index. So, the SUR-method was applied for estimating three separate equations - one for each CPI-group. The arranged prices index was included in the list of explanatory variables as an exogenous variable along with M3, fiscal expenditures (capital and current), unemployment rate, NEER and the import prices index. The first extended model estimated consisted of three simultaneously estimated equations where the same endogenous and exogenous variables influence the behaviour of each separate price series. This specification reads as:

 $X_{t} = \Phi_{0} + \sum_{j=1}^{k} \Phi_{j} X_{t-j} + \sum_{i=1}^{n} \Phi_{i} Z_{i,t-i}$

In this model, the three-dimensional endogenous variable X_t represents annual changes in the prices of imported goods, services and other goods at time t and exogenous variable $Z_{i,t}$ where i=1,2...k contains all the exogenous variables, including the regulated and negotiated prices series. The parameters to be estimated are denoted by the 's. The final step is to calculate the headline CPI on a monthly and quarterly basis. Based on the series of CPI for four groups and their respective weights (Table 1), we obtain the total CPI series applying the following formula:

 $\begin{array}{l} \mathsf{CPI}_{i} = \left. \mathsf{CPI}_{i_{\mathsf{Imported goods}}}^{*} 0.38 + \left. \mathsf{CPI}_{\mathsf{Services}}^{*} \right.^{*} 0.31 + \left. \mathsf{CPI}_{\mathsf{Arranged Prices}}^{*} \right.^{*} \\ 0.16 + \left. \mathsf{CPI}_{\mathsf{Others}}^{*} \right.^{*} 0.15 \end{array}$

3.1. FORECASTING GROUP INFLATION ON A MONTHLY BASIS

Although during the whole forecasting process, the statistical significance and the economical meaning for the old and new exogenous variables are taken into consideration, only the relevant ones are presented in the final form of the models. On the basis of monthly data, the VAR-model updated up to now (3-a, b, c), indicates some slight changes in the lag lengths, due to the inclusion of the new proxy for import prices and the longer data series. In the final re-estimated equation for services (3b), the import price series enters positively in contrast to the previous version of this equation. All equations of the model include the unemployment rate and import prices as exogenous variables. The unemployment rate appears to be negatively related to the inflation rate of each subgroup and the lag length is the same for all three equations. We observe more variation with respect to the lag length of import price index. The monetary agaregate M3 enters significantly in equations 3g and 3b, and is positively related to the dependent variables. In the re-estimation process, we paid particular attention to the story behind the monetary transmission mechanism and decided to include considerably longer lags of the monetary aggregates in the estimated equations than in the first round of estimations (Celiku et al., 2005). The monthly group model reads as:

$$\begin{split} \mathsf{DLOG}_{12}\left(\mathsf{CPI}_{\mathsf{imported},!}\right) &= -0.01 + 0.51 \ \mathsf{DLOG}_{12}(\mathsf{CPI}_{\mathsf{imported},!-1}) &- \\ &(-1.1) & (7.3) \\ &- 0.22 \ \mathsf{DLOG}_{12}(\mathsf{CPI}_{\mathsf{services},!-4}) \\ &+ 0.71 \ \mathsf{DLOG}_{12}(\mathsf{CPI}_{\mathsf{others},!-1}) &- 0.16 \ \mathsf{DLOG}_{12}(\mathsf{CPI}_{\mathsf{arranged},!}) &+ 0.10 \ \mathsf{DLOG}_{12}(\mathsf{M3}_{:-14}) \\ &(-3.06) \\ &+ 0.71 \ \mathsf{DLOG}_{12}(\mathsf{CPI}_{\mathsf{others},!-1}) &- 0.16 \ \mathsf{DLOG}_{12}(\mathsf{CPI}_{\mathsf{arranged},!}) &+ 0.10 \ \mathsf{DLOG}_{12}(\mathsf{M3}_{:-14}) \\ &(-4.2) & (-6.4) \\ &(-6.4) \\ &(-4.2) \\ &(-6.4$$

$$\begin{array}{l} + \ 0.1 \ DLOG_{12}(UN_{i-1}) - 0.10 \ DLOG_{12}(UN_{i-2}) - \\ (-2.2) \\ - \ 0.2 \ DLOG_{12}(IMP \ 54_{i-1}) + \ 0.3 \ DLOG_{12}(IMP \ 54_{i}) \\ (-2.0) \\ \end{array}$$

As regards the interrelationship among the constructed groups, we observe that the prices of services and imported goods are highly influenced by prices of other goods.

3.2. FORECASTING GROUP INFLATION ON A QUARTERLY BASIS

The updated quarterly VAR model presents more changes than the monthly model (see equations 4-a, b, c). More explanatory variables have been used, as the fiscal expenditures variables were split into current and capital expenditures, since March 2006. Besides the new proxy for import prices, NEER has been used as an explanatory variable in the quarterly model. These changes improved the overall explanatory power of the model for the evaluation period. In comparison to the originally estimated equations, the services equation shows the most marked increase in the explanatory power as measured by R²adj. The model estimated by Seemingly Unrestricted Regression on a quarterly basis reads as:

$$\begin{split} & \mathsf{DLOG}_4(\mathsf{CPI}_{\mathsf{imports},i}) = 0.02 + 0.4 \ \mathsf{DLOG}_4(\mathsf{CPI}_{\mathsf{services},t-1}) - \\ & (4.3) & (6.9) \\ & (-0.9 \ \mathsf{DLOG}_4(\mathsf{CPI}_{\mathsf{others},t-2}) - 0.3 \ \mathsf{DLOG}_4(\mathsf{CPI}_{\mathsf{arranged},t-1}) \\ & (-6.2) \\ & + 0.5 \ \mathsf{DLOG}_4(\mathsf{NEER}_{t-1}) + 0.14 \ \mathsf{DLOG}_4(\mathsf{FISC}_\mathsf{CUR}_\mathsf{EXP}_{t-1}) \\ & (-12.3) & (4.1) \\ & \mathsf{R}^2 - \mathsf{adj} = 0.83, \quad \mathsf{SE} = 0.01 \\ & \mathsf{DLOG}_4(\mathsf{CPI}_{\mathsf{services},i}) = 0.01 + 1.2 \ \mathsf{DLOG}_4(\mathsf{CPI}_{\mathsf{services},t-1}) - \\ & (1.9) & (8.2) \\ & - 0.4 \ \mathsf{DLOG}_4(\mathsf{CPI}_{\mathsf{services},t-2}) - 0.12 \ \mathsf{DLOG}_4(\mathsf{UN}_{t-1}) \\ & (-3.1) & (-2.4) \\ & + 0.02 \ \mathsf{DLOG}_4(\mathsf{FISC}_\mathsf{CAP}_\mathsf{EXP}_{t-1}) \\ & \mathsf{R}^2 - \mathsf{adj} = 0.86, \quad \mathsf{SE} = 0.01 \end{split}$$

$$\begin{split} & \mathsf{DLOG}_4(\mathsf{CPI}_{\mathsf{others},t}) = -0.02 - 0.2 \ \mathsf{DLOG}_4(\mathsf{CPI}_{\mathsf{import},t-1}) + \\ & (-7.4) \ (4.1) \\ & + 0.19 \ \mathsf{DLOG}_4(\mathsf{CPI}_{\mathsf{import},t-2}) + 0.32 \ \mathsf{DLOG}_4(\mathsf{CPI}_{\mathsf{services},t-2}) \\ & + 0.6 \ \mathsf{DLOG}_4(\mathsf{IMP}_5\mathsf{4}_{t-1}) + 0.2 \ \mathsf{DLOG}_4(\mathsf{NEER}_{t-1}) - \\ & (6.6) \\ & - 0.1 \ \mathsf{DLOG}_4(\mathsf{UN}_{t-1}) - 0.6 \ \mathsf{DLOG}_4(\mathsf{CPI}_{\mathsf{others},t-2}) \\ & (3.2) \\ & \mathsf{R}^2 - \mathsf{adj} = 0.78, \quad \mathsf{SE} = 0.008 \end{split}$$

We can highlight that the endogenous variables explain the movements in one-another quite well. Each of the equations contains at least two of the other groups while lags of the explained variable are always present. The exogenous variables used in each estimation round are the unemployment rate, the nominal effective exchange rate, broad money (M3), current and capital government expenditures and arranged prices up to two lags. Exogenous variables resulting insignificant at the 10% significance level were dropped. At this stage, we can observe a partial consistency between the quarterly and the monthly set of equations. In some cases, equations of the quarterly model contain variables that are not included in the monthly model (or vice-versa); explanatory variables differ with regard to their laglength and the signs of their coefficients.

4. FORECASTING HEADLINE INFLATION BASED ON CORE AND NON-CORE COMPONENTS

During 2005 – 2006, the headline inflation has also been forecasted based on the core and non-core inflation series. The purpose of this approach is to forecast, respectively, a component capturing the long-term trend and a component reflecting the short-term fluctuations in the total inflation rate. The core inflation series represents the sustainable part of inflation, while the remaining part or the so called non-core inflation is mostly related to the transitory effects. But when core inflation is calculated based on the 30 per cent trimmed-mean methodology³, the weight of the basket of the 'core' products i.e. those exhibiting the most stable contribution to the inflation rate over time, is not constant. The changing of the weights was



a source of inconvenience in the forecasting of the headline inflation during 2005-2006. Another weak point of this method is the fact that it is difficult for the public to understand.

Box 5 Why shift to the permanent exclusion methodology for measuring net inflation?

Choosing among core inflation methodologies based on different statistical criteria is a debatable and difficult issue (Silver, 2006). In general, central banks prefer to declare core or net inflation as measured by the permanent exclusion methodology. This method is more understandable and transparent for the public than the others, especially when the central banks target core inflation. In the case of Albania, beside the transparency issue, the forecasting of headline inflation using forecasts for the core and non-core inflation series, presented some difficulties. The weights of the two components vary across the periods. The assumptions about the weights of the core and non-core inflation series influenced considerably the headline inflation forecasts.

The problem caused by the changing weights can be avoided through the permanent exclusion of some items from the CPI basket. According to this methodology the measure of the net inflation might exclude items with high price seasonality, typically unprocessed food products; items that are subject to duty, or indirect taxes, and whose prices are influenced by the fiscal policy (excise items) or items with arranged prices. For forecasting purposes of the headline inflation, the BoA is planning to revise the net inflation measurement in the near future.

4.1 FORECASTING TRIMMED-MEAN CORE INFLATION ON A MONTHLY BASIS

Core inflation models have undergone some slight changes during the forecasting process in 2005-2006. However, the monthly and quarterly models seem to converge in terms of the explanatory variables. The updated model for core inflation on a monthly basis reads as:

 $\begin{array}{l} \text{DLOG}_{12}(\text{CPI}_{\text{Core,I}}) = -0.001 + 0.86 \text{ } \text{DLOG}_{12}(\text{CPI}_{\text{Core,I}}) - \\ & (-1.6) & (18.4) \\ - 0.01 \text{ } \text{DLOG}_{12}(\text{UN}_{1.3}) + 0.004 \text{ } \text{DLOG}_{12}(\text{M1}_{1.2}) \\ & (-3.6) & (2.0) & (5a) \end{array}$ $\begin{array}{l} \text{R}^2\text{-}adj = 0.90, \quad \text{SE} = 0.002 \end{array}$

The updated model differs from the previous model in two main aspects. First, since June 2006 the dummy variable intended to capture the effect of the euro banknotes and coins in circulation in Albania, is dropped from the second model as it lost its significance. Second, the lag length for unemployment rate appears higher than in the previous model. The persistence of core inflation is shown by a more significant autoregressive term. The regression results (5a) show that 1 per cent increase in M1 influences core inflation after seven months by 0.004 per cent. Also, the unemployment rate is playing an important role in the developments in the core inflation: a 1 per cent increase in the unemployment rate lowers core inflation by 0.01 per cent after three months.

4.2 FORECASTING TRIMMED-MEAN CORE INFLATION ON A QUARTERLY BASIS

The best quarterly model for core inflation, after the updating, reads as:

$$\begin{split} & \text{DLOG}_4(\text{CPI}_{\text{Core,II}}) = \underbrace{0.003}_{(3.1)} + \underbrace{0.20}_{(1.9)} \text{DLOG}_4(\text{CPI}_{\text{Core,I-1}}) + \underbrace{0.04}_{(-4.5)} \text{DLOG}_4(\text{UN}_{\text{I-3}}) + \\ & + \underbrace{0.013}_{(2.5)} \text{DLOG}_4(\text{M1}_{\text{I-8}}) + \underbrace{0.024}_{(2.2)} \text{DLOG}_4(\text{e}_{\text{euro,I-1}}) \\ & (2.5) \\ & \text{R}^2 \text{-adj} = 0.78, \quad \text{SE} = 0.002 \end{split}$$

As in the monthly model, the changes in the unemployment rate and narrow money are highly significant. Those changes influence the core inflation, but the lag length is significantly longer in terms of months. The elasticity of unemployment is 0.04 per cent. The Lek/Euro exchange rate turns out to affect the core inflation on quarterly basis with a significant elasticity of 0.024 per cent, whereas the lag length at which it operates is one quarter less than in the model presented in the (Çeliku et al., 2005).

4.3 FORECASTING NON-CORE INFLATION ON A MONTHLY AND ON A QUARTERLY BASIS

In order to obtain a forecast for headline inflation, the noncore component has been forecasted using an ARIMA process. These models appear quite simple over the estimation period.

The ARIMA process on monthly basis reads as:

$$\begin{split} DLOG_{12}(CPI_{Non-Core,i}) &= 0.04 + 0.41 \ AR(1) + 0.22 \ AR(7) + 0.94 \ MA(6) \\ (2.2) \quad (4.1) \quad (2.4) \quad (4.9) \end{split}$$
 R2-adj = 0.53, SE=0.03 (5b)

On quarterly basis it reads as:

$$\begin{split} DLOG_4(CPI_{Non-core,i}) &= \begin{array}{c} 0.04 + 0.39 \ \text{AR}(1) + 0.95 \ \text{MA}(2) \\ (2.55) \ (2.24) \ (12.6) \end{split} \\ \\ \text{R2-adj} &= 0.61, \quad \text{SE} = 0.026 \end{split} \tag{6b}$$

The results of the ARIMA process indicate that the quarterly model has a higher explanatory power than the monthly one.

At this stage of the forecasting process, we consider the model based on the separate inflation groups as more flexible than the other two. The form of the model allows for variations in the choice of explanatory variables and in the lags, which do not necessarily have to be the same for the different inflation groups. A better fit for the separate equations is likely to result in a better fit for the headline inflation. This expectation is supported by the findings of the twin-paper on the evaluation of the forecast errors.

5. STABILITY TESTS FOR THE COEFFICIENTS

The main purpose of this section is to analyse the evolution of the estimated coefficients of the models meanwhile more and more data are used in the forecasting process. The more the coefficients converge to a value or a narrow band of values overtime the better the goodness of fit for models.

In this section are presented the stability tests results based on recursive estimation of the coefficients, for the headline and core inflation models on a monthly and quarterly basis. From the stability test results, we can conclude that the parameters of the unemployment rate, of the monetary aggregates M1 and M3, of the exchange rates and import prices are presenting appropriate stability over time (see chart 4) and as we concluded in the previews section these variables are playing an important role for explaining the future inflation developments.





6. CONCLUSIONS

This paper presents the results of the revised econometric models used during the last 18 months at the BoA for explaining and forecasting inflation one year ahead on a monthly and quarterly basis. Those models aimed to capture the most important changes in the Albanian economy up to August 2006 in terms of inflation developments and the factors influencing this variable. The forecasting period served at the same time as a testing period for the models, based on the estimation results. One of the most important additions to the previous work is the improvement and the expansion of the list of explanatory variables. The most significant variables in all the models are: unemployment and exchange rate, money supply, import prices, current and capital expenditures and arranged prices. Altering the lag length in some cases improved the explanatory power of the models.

Since January 2006 a new proxy for imported prices has been constructed and used in order to better capture external pressures on headline inflation in Albania. This data series is considered as more appropriate than the first proxy in terms of explaining and forecasting inflation. We reconstructed the import prices index using newly available information from the INSTAT. The new information consists of the fixed weights of traded/imported items within sub-groups of the CPI basket of Albania for 2004. We consider that the new import price series calculated using the import shares in consumption is more straightforward than the previous one as it uses direct information and is closer to the Albanian CPI than the series obtained using foreign CPIs. Updating information regarding the import share for the Albanian consumption will improve the quality of this proxy. In the meantime, further research will be dedicated to the investigation of the relationship between foreign export prices and movements in the Albanian price level.

We believe that there is room for improvement in the construction of economically meaningful CPI subgroups. The final goal will be to create sub-indices that can be better employed in the forecasting models and that can better capture inflation dynamics in the Albanian economy.

From a broad comparison of the models we can make the following remarks. Despite the fact that the models are estimated by different methods and based on different frequencies, the determinants in the monthly models turn out to be significant in the quarterly models and their coefficients are almost stable over time. The unemployment rate and the monetary agaregates appear in almost all the models and they seem to affect inflation respectively in medium and long-term. Variables such as NEER and import prices capture external pressures on the headline inflation and they seem to take a shorter time to affect inflation compared to the above mentioned variables. We consider the model based on the separate inflation groups as more flexible than the other two. The form of the model allows for variations in the choice of explanatory variables and in the lags, which do not necessarily have to be the same for the different inflation groups. A better fit for the separate equations is likely to result in a better fit for the headline inflation. As regards the measurement of the core/net inflation and the forecast of the headline inflation based on this series, future efforts will aim at constructing a series that would be more straightforward both for the analyst and for the public. We conclude by stressing that the evaluation of the forecasting models is an ongoing process. For transparency reasons, we deem it crucial that the BoA publishes the inflation forecasting models in the form of a periodical technical document.

* Evelina Çeliku, Diana Shtylla, Gent Hashorva, Rajna Hoxholli, Monetary Policy Department, Bank of Albania, Vasilika Kota, Research Department, Bank of Albania .

The views in this paper are solely the responsibility of the authors and should not be interpreted as reflecting the views of the Central Bank of Albania. The authors thank Ms. Marga Peeters, IMF Resident Monetary Policy Advisor for her helpful comments, suggestions and assistance in writing this paper and Elvana Troqe, Elona Dushku and Risan Shllaku for their comments.

¹ The symbols used in this paper regarding models and variables are explained in the appendix.

² For further information regarding the composition of each group see Table 1, in the (Çeliku et al., 2005).

³ For further information regarding some statistical results see Table 2, in the (Çeliku, 2005).

Bank of Albania, 2005, "Preconditions for Inflation Targeting in Albania", Open Forum organised by the Bank of Albania, Tirana, 1-2 December 2005.

Kota, V., Hashorva, G., Peeters, M., and Çeliku, E., 2006, "Evaluation of the Shadow Run Headline Inflation Forecasts for April 2005 – September 06".

Çeliku, E., 2005, "Core Inflation in Albania: Measurement and Relation to Monetary Aggregates", Discussion Paper, Bank of Albania.

Çeliku, E., Shtylla, D., Hashorva, G., Hoxholli, R., 2005, "Inflation Forecasting at the Central Bank of Albania", Internal Discussion Paper, Bank of Albania

Silver, M., 2006, "Core Inflation Measures and Statistical Issues in Choosing Among Them", IMF, WP/06/97.

Tanku, A., 2006, "Demand for Money in a Transition Economy: the Case of Albania", Ongoing study, Bank of Albania.

APPENDIX: LIST OF VARIABLES, MODELS AND NOTATIONS

CPI	Consumer price index
CPI	Trimmed-mean core consumer price index
CPI	Consumer price index for imported goods
CPI _{non-core}	Non-core consumer price index
CPI	Consumer price index for other goods
CPI	Consumer price index for arranged prices group of goods
CPI	Consumer price index for services
e _{euro}	Lek/euro exchange rate (an increase is a depreciation of the Lek)
FISC_CAP_EXP	Fiscal capital expenditures
FISC_CUR_EXP	Fiscal current expenditures
Head Mon	Model for the Monthly Headline Inflation
Head Qua	Model for the Quarterly Headline Inflation
IMP_54	Index of import prices
M1	Narrow money supply
М3	Broad money supply
NEER	Nominal effective exchange rate
Trim Mon	Model for the Monthly Core Inflation
Trim Qua	Model for the Quarterly Core Inflation
UN	Unemployment rate

Subscript t is a time index.

 $DLOG_{12}(x)$ and $DLOG_4(x)$ represents the year-on-year difference of the logarithm of variable x, for the monthly and the quarterly series, respectively.

The sample period for all econometric estimations is 1998M1-2006M9 for the monthly models and 1998Q1-2006Q3 for the quarterly models.

COMMENTS ON: THE PORTFOLIO OF ECONOMETRIC MODELS FOR INFLATION FORECASTING AT THE BANK OF ALBANIA

Ronald Albers*

ASSESSING INFLATION FORECASTS

1. GENERAL ASSESSMENT

The previous Open Forum discussed more general issues about implementing inflation targeting in Albania. This year's Round Table is clearly more focused on practical issues of implementation, and has a more technical character. In keeping with this shift in focus, the comments below focus on inflation forecasting as a practical tool for inflation targeting, with special reference to the papers by the Bank of Albania on inflation forecasts models and the assessment of inflation forecast errors. Nevertheless, allow me some more general observations at the outset.

The Bank of Albania certainly is highly ambitious in attempting the transition to full-fledged inflation targeting. There has been a debate in the literature to what extent it is feasible – or even desirable – for emerging market economies to make such a move.¹ I will not pass a judgement here but rather briefly review some arguments why inflation targeting may seem a feasible option for Albania, even though there may well be other options for a monetary strateay. One can debate whether in the Albanian case the prerequisites often mentioned in the literature (including clarity of the primary objective, instrument independence, absence of fiscal dominance, sufficiently developed financial markets, need for good macro-economic data) are all met ex ante. In a strict sense, the answer is no, not on all counts. But it has been pointed out that none of the countries that have adopted inflation targeting so far met all preconditions from the beginning. And current experience suggests that pre-conditions can be met ex post if there is a sufficiently strong commitment to implement inflation targeting in a proper way. Several emerging market economies have been quite successful in implementing inflation targeting, despite a not-so-favourable starting position. This is encouraging for Albania. Moreover, the starting position is guite encouraging. For instance, inflation in Albania currently is relatively low and stable. In order to make inflation taracting a success, the Bank of Albania has to prove to the outside world its technical ability to model the economy, to forecast inflation, and to communicate it transparently. Against this background, the papers prepared by the Bank of Albania staff show impressive progress over a relatively short period of time and developing the necessary technical capabilities in the future should be feasible

While the Bank of Albania has decided to pursue inflation targeting, the current thinking is to implement it gradually and over a somewhat longer time horizon until 2009. This leaves time to gradually fine-tune the technical and institutional set-up and to find ways to effectively communicate to the public. All in all such a sequenced approach seems in order. A functioning framework for inflation forecasting is essential to successfully implement full-fledged inflation targeting. It is crucial to inform policy decisions, but also to communicate transparently on deviations from the target, and is thus an indispensable instrument to be accountable. The success of the strategy to anchoring inflation expectations at a sufficiently low level ultimately depends on it and there seems still ample scope for improving the current set of models. But inflation forecasting is notoriously difficult (Den Reijer and Vlaar 2006). In fact, inflation is among the most difficult macro-economic variables to forecast, partly because the statistical properties of inflation time series tend to be less than well behaved.

Introducing inflation targeting is a bit like introducing a stateof-the-art machine in a traditional factory – historical experience suggest that it takes some tinkering to let it function optimally. Please note that 'tinkering' in the sense used here should be seen as a positive characterisation. One simply cannot expect everything to run smoothly from day one, and the whole process will be one of learning by doing. But in order to learn, one has to do, and one can benefit from the experience of others. The Bank of Albania certainly has shown a great willingness to try, to learn, and to use outside experience. Whatever final choice is made, this attitude and willingness to be open to discussion is praiseworthy and can only lead to better results in the course of time, regardless of the policy framework that will ultimately be adopted.

2. ASSESSING INFLATION FORECASTS

In what follows I will largely refrain from comparing the inflation forecast models employed by the Bank of Albania to a highly artificial and demanding benchmark of state-of-the-art inflation models. This is in keeping with the highly pragmatic and eclectic approach of the papers, which is perhaps their most remarkable feature. The authors very much focus on what works in inflation forecasting. This is shown by the fact that the choice of variables and the determination of lag lengths to include in the various models are very much determined by statistical criteria. Statistical considerations are also at the root of efforts to identify measures of core inflation. The models chosen by the Bank of Albania apply fairly standard econometrics, for instance as regards stationarity and parameter stability and I found little to argue with in this respect.

Interestingly, the authors admit at the outset that they are quite agnostic about the theoretical foundations of their models.

Rather than proposing a theoretical model which is calibrated and tested, they almost immediately move to the next step of actual forecasting. I think that to a large extent this is a defendable choice: the purpose is above all a practical one, and for an economy in an ongoing process of structural transformation it is legitimate to be pragmatic and not to impose too many priors on the structure of the economy. However, departing from theoretical foundations comes at a cost. Reading through the papers one starts wondering, for instance, about the role of broad money in inflation, on the lag length of monetary policy, and on the relation between inflation forecasts and policy instruments under the direct control of the central bank. So perhaps an alternative strategy of building and calibrating a theoretical model, confronting it with expert judgement, and adjusting it in line with changes in the economic structure and the transmission mechanism should not be entirely discarded, even if probably it would be difficult to implement at this juncture. Below follow some more detailed comments on the papers prepared by the Bank of Albania on forecast models and forecast evaluation.

2.1 Inflation forecast models

The first of the two companion papers by Çeliku *et al.* deals with the portfolio of econometric models currently employed by the Bank of Albania. Compared to the work presented at last year's Open Forum they reflect substantial revisions and improvements on a number of counts. Without a claim to be exhaustive, some pertinent issues appear to be the following, in somewhat arbitrary order.

The choice for a set of different models instead of a single forecast model is argued on good grounds. It is widely acknowledged that different models can be used for different purposes, and the Bank of Albania has made the right choice to use a portfolio of different models, instead of picking a single one. In the companion paper it is found that some models perform better in the short-term, others in the longer run, and that some models perform particularly well in predicting the inflation direction. In interpreting forecast outcomes, good use can be made of a comparison of relative strengths and weaknesses of each model.

As regards the specifications, it is fair to say that the equations estimated are generally fairly straightforward linear reduced-form equations, covering a limited number of variables and lag lengths. They meet some general econometric requirements, and the short time series and outstanding issues as regards the quality of the statistics would militate against too complicated an approach. This in keeping with the finding by Banerjee, Marcellino and Masten (2005) that for forecasting macro-economic variables in new EU Member States simple models can be expected to perform comparatively well, partly in view of the short time series available. Adding an autoregressive term usually is helpful. Still, it is noticeable that in recent work on inflation forecasting in more advanced transition economies (see for instance, Consolo (2006) on Estonia) the superior performance of more complicated (often non-linear) models is stressed. For the Albanian Central Bank attempts in this direction would probably not be helpful at this juncture, but it is advisable to be informed about such attempts for other countries.

Nevertheless, some questions arise on examining the details of some equations. To give but one example, concerning equation (2) (forecasts for headline inflation on a quarterly basis), one wonders about adding lagged dependant variables. In addition, as regards the monthly model for headline inflation given in equation (1) the perverse sign on the exchange rate is highly puzzling. It is dryly noted that this 'contradicts economic theory'.² Indeed, for an economy such as Albania one would expect a fairly large role for the exchange rate as a transmission mechanism, so this result warrants closer inspection (cf. Muço *et al.* 2004). One may conjecture that it could be a statistical artefact due to fairly low and stable inflation in a period of mild appreciation of the lek (with exchange rate stability having contributed to lower inflation and inflation expectations), but then an alternative model may be needed.

The data inputs are not discussed in detail. To an extent such issues are dealt with in the companion paper on the statistical framework. From a forecasting perspective, possible concerns about the reliability and coverage of measurement errors may be worth mentioning.³ The large size of the informal economy probably affects the reliability of data on real activity, on unemployment, wages, and cash flows. Part of the substantial inflow of migrant's remittances might be reflected in M3, but a large part probably remains outside the banking sector, limiting the scope of liquidity data. More in particular, it would be relevant to know, for instance, whether the proxy used for input prices discussed in box 3 indeed is a sub-sample of the CPI, as seems to be the case. If this were so, endogeneity issues in equations with import prices as an explanatory variable would be even more acute. Also, where relevant, the treatment of that seasonality, structural breaks and possible outliers could be elaborated on.

As regards the forecast horizon, the choice for a one-year forecast is motivated by purely pragmatic reasons, and no general reference is made to the lags with which monetary policy affects inflation. At least in theory one should aim at a horizon at which monetary policy actions have their strongest effect on inflation.⁴ In Albania, financial markets are rather shallow and the interest rate channel is rather weak, reflecting a lack of financial depth, the importance of cash, and the substantial share of foreign currency borrowing. On the other hand, the transmission period might be rather short in view of the structure of the economy and the financial sector. To the extent that such considerations are pertinent to the inflation process, they warrant a more detailed motivation. In due time, with longer time series becoming available, it would probably be worthwhile to extend the forecast horizon. Possibly to two years. Interestingly, since forecast errors at the end of the horizon do not appear to widen, there may be some scope for this within the existing set of models.

More serious concerns arise in connection with the discussion of the Phillips curve (box 2), which is used to underpin the inclusion of changes in the unemployment in several of the models. Here one feels the need for more thorough theoretical underpinning. Moreover, from a central bank one would expect some test of long-run verticality of the Phillips curve. In a somewhat similar vein, I am slightly wary of linking inflation forecasts too closely to monetary policy decisions, as is done in the opening sentences of section 2.2. It seems advisable to maintain a clear distinction between forecasting tools and models and decision rules. Under inflation targeting, inflation forecasts are clearly an important input in the decision making process, but there is no mechanical link. The models presented in the paper are reduced-form equations and here it may be useful to invoke some theoretical notions inspired by the Lucas critique. Supposedly, the impact of monetary policy is implicitly captured in the parameters, which respond to policy changes and are influenced by possible structural breaks.

The models that forecast some form of core inflation are highly informative, but clearly need further developing. I share the doubts expressed in the paper about the appropriateness of the current trimmed-mean definition of 'core' inflation. In particular, the shifting composition and weights will make it difficult to explain the method to the public. Permanent exclusion of certain items seems more promising as regards external communication. To my mind, it may be useful to distinguish three broad groups: administered prices (which I guess is the Commission terminology for what the paper calls 'arranged' prices), non-regulated energy prices (which supposedly correlate highly with world energy prices and the exchange rate), and the residual 'core inflation'. Within core inflation it may be useful to distinguish food prices. In addition, it is definitely worthwhile to add estimates of the impact of changes in indirect taxes. However, since market conditions and changes in the mark-up also affect the prices of goods and services affected by tax changes, it is debatable whether these items should be considered a separate category. This breakdown differs somewhat from the tentative proposals in box 5. But they have the key advantage that they make maximal use of price developments for items that need not to be forecast (since they are regulated and price changes should be more or less known in advance), or where price changes can be estimated with a fairly high degree of certainty (tax impacts, possibly fuels prices). In addition, experience in other transition economies suggests that changes in taxes and

administered prices have led to major shocks to inflation over time. It is important to isolate their impact, both for analytical reasons and in order to justify possible future deviations from an inflation target which is beyond the control of the central bank.

Whether this should lead to targeting some measure of core inflation (excluding administered prices) is debatable. Targeting headline inflation has some clear advantages in terms of clarity and transparency. More generally, central banks have some good reasons to be concerned about consumer prices in defining stability and in formulating monetary policy (Wellink 1998). Targeting a less transparent measure of core inflation may be a better option from a technical point of view, but suboptimal in a more general sense.

2.2 Inflation forecast evaluation and presentation

The paper by Kota *et al.* deals with the evaluation of the headline inflation forecasts produced in the relatively short period between April 2005 and September 2006, and with possible ways to present inflation forecasts and margins of uncertainty to the public. The evaluation of forecast errors is presented very clearly, using some common and widely-used measures of forecast accuracy.⁵ Quarterly forecast models do not perform worse than monthly ones, which is comforting in view of publishing quarterly forecasts. While there is little to add in the analysis of forecast errors in the paper some caution is merited in drawing firm conclusions.

First of all, the evaluation period is rather short. Continuous monitoring is needed in future to see how forecast errors evolve. In addition, forecast errors have been relatively contained over the evaluation period, but perhaps this partly reflects fortuitous circumstances: economic conditions in Albania seem to have been quite stable over the evaluation period. As a consequence, it may be advisable to remain modest as regards the relative performance of the Albanian inflation forecasts compared to a number of other countries (not all of them inflation targeters). Despite the relatively encouraging recent track record, the experience in other countries suggests that substantial deviations from target are bound to happen in the future. It is impossible to tell when, and probably it will be for reasons outside the control of the central bank, but it is good to be prepared.

If some sizeable external or internal shock affects the economy (including changes in taxes and administered prices), substantial deviations of inflation from the target may well occur and indeed are bound to happen. Albania is prone to large real shocks, due to the small export base, highly concentrated export structure and reliance on imports. Put differently, in view of the structure ongoing rapid changes in the Albanian economy, episodes of more volatile inflation with larger inflation forecast deviations are bound to happen. In some other European countries that introduced inflation targeting (Romania, Czech Republic), such episodes led to a rather dismal track record for the inflation forecasts in relation to the target in the early stages of the shift to the new regime. But, encouragingly, this does not seem to have harmed the central bank's reputation beyond repair. Perseverance, commitment, openness, and an improved track record with the passage of time helped to maintain credibility.

More technically, the narrowing of uncertainty bands towards the end of the forecast horizon is counterintuitive. To some extent, it mirrors the rapid increase in forecast uncertainty in the first quarter or two ahead, which is less than comforting. Extending the forecast sample may well alter these findings.

The paper would benefit from a more detailed account of the way in which external assumptions are derived. The sensitivity of the forecast to changes in external assumptions is probably quite high. The efforts to gauge this by a standardised (modelbased) sensitivity analyses are very welcome. The assumptions of additivity and linearity to assess the combined impact of simultaneous changes in more than one external assumption should work in normal circumstances. In presenting forecasts, it is very important to distinguish clearly between conditional forecasts (one may prefer to call them 'projections') and unconditional ones. This may be a tricky message to bring across to the general public. Arguably, presenting the way in which forecasts are conditional on the assumed path for exchange rates and interest rates, including – crucially – the own policy rates, is even more difficult. As opposed to other forecasts, the ones produced by a central bank are in a class of their own to the extent that the most important variables determining inflation relate to monetary policy, which cannot be treated as either an endogenous or exogenous variable. Thus a published forecast based on, for instance, a no-policy-change baseline may not yield the truly expected inflation, since interest rates will be set differently over the forecast horizon. Alternatively, unconditional forecasts should imply that monetary policy responds in a way that yields the desired outcome for inflation, if one assumes models to be efficient. This may cause communication problems since the public and markets may interpret the forecast as a policy statement, implying that the central bank intends to behave as projected. Especially when the forecast is produced by staff, or under the auspices of a body such as a Monetary Policy Committee, the actual perception of decision makers in the central bank may be different, giving rise to potential confusion. In practical terms, since financial markets are not fully developed, consistent interest and exchange rate assumptions probably cannot be derived from market expectations. Moreover, with such an approach there is a risk of a vicious circle of market auesses and the central bank's interest decisions partly based on market views (Berg 2005). Hence, it is logical to start with the assumption of an unchanged policy stance.

A final very important set of issues relate to the presentation and external communication of the forecasts. It is the intention of the Bank of Albania to make the models available to the general public in due time. This is highly transparent and would be welcome. Of course, one may argue that this invites criticism. But the Bank of Albania would probably use the critique to try and improve the models, which is commendable. In terms of presenting forecasts, on balance a quarterly frequency appears optimal, which also would enable the publication of forecasts in a manageable frequency (a few times a year at most). In the Albanian case, publishing forecasts twice a year may well suffice, given the paucity of short-term date that are released with a limited delay. In view of the substantial uncertainties related to the margins of error over the forecast horizon, it may be advisable to delay the publication of fan charts until a firmer statistical basis exists.

A final issue to be considered is how to account for deviations from the inflation target in external communication.⁶ It will be very important for the Bank to stress the role of factors beyond its control (such as commodity price movements and changes in taxes and administered prices) in order to maintain credibility and anchor long-term inflation expectations. In communicating the distinction between conditional and unconditional forecasts may be helpful, but, as noted, may be difficult to explain to the public at large.

3. CONCLUDING REMARKS

The progress made by the Bank of Albania in building the technical expertise to conduct inflation targeting is very encouraging. That said, the choice to extend the preparation period appears a right one. The current state of inflation forecasting still leaves many questions to be answered. A sequenced approach enables further refining of the forecasting and monitoring capabilities, and a better assessment of the reliability of forecasts. Moreover, an extended period in which to shape external communications is also welcome. This would, for instance, allow some trial-and-error on the best way to present the inflation targeting framework, including margins of uncertainty and the most effective ways to communicate about deviations from target.

The Bank of Albania should continue to work hard on building a solid reputation. Openness and effective communication are needed to make inflation targeting a success and to build a reputation. It seems that only central banks of advanced economies with a strong reputation can afford to be more secretive on their monetary policy decisions (Carare and Stone 2006). Albania clearly cannot afford it. The Bank of Albania should also be aware that even with much improved inflation forecasts, substantial deviations from the inflation target are bound to occur in future. That is a fact of life and the Bank should not be discouraged, but rather focus on maintaining credibility through clear communication and ongoing efforts to achieve analytical excellence. * Ronald Albers, Directorate General for Economic and Financial Affairs of the European Commission. The views expressed are those of the author and do not necessarily reflect those of DG Ecfin or the European Commission. Without implicating them, helpful suggestions by Zdenek Cech, Julia Lendvai, Aurora Mordonu and Martin Spolc are gratefully acknowledged.

¹ Carare *et al.* (2002), discusses pros and cons. Siklos and Ábel (2002) gives a carefully weighted argumentation whether the adoption of inflation targets is desirable for Hungary, an analysis carried out at the time the country was about to embark on inflation targeting. For Slovenia, Festić (2003) arrives at negative conclusions.

² Interestingly, in the companion paper by Kota *et al.* the model-based scenario analysis proposes a rather significant pass-through with the expected sign.

³ On measurement issues in the CPI see Lebow and Rudd (2003).

⁴ That said, on p.134 the transmission mechanism is invoked to argue for including longer lags of M3 in the equations for forecasting group inflation.

⁵ However, see Hyndman and Koehler (2006), for a critical assessment of the use of scale-dependant measures of forecast accuracy.

⁶ See the recent communications by the National Bank of Hungary as a case study where this is attempted.

Banerjee, A., M. Marcellino and I. Masten (2005), "Forecasting Macroeconomic Variables for the New Member States of the European Union", ECB Working Paper No. 482.

Berg, C. (2005), "Experience of Inflation Targeting in 20 countries", Sveriges Riksbank Economic Review, 20-47.

Carare A. e.a. (2002), "Establishing Initial Conditions in Support of Inflation Targeting", IMF Working Paper 02/102.

Carare, A. and M.R. Stone (2006), "Inflation Targeting Regimes", European Economic Review 50, 1297-1315.

Consolo, A. (2006), "Forecasting Measures of Inflation for the Estonian Economy, Bank of Estonia Working Paper 3/2006.

Den Reijer, A. and P. Vlaar (2006), "Forecasting Inflation: an Art as well as a Science!", *De Economist* 154, 19-40.

Festić, M. (2003), "Inflation Targeting for Slovenia?", Eastern European Economics 41, 79-98.

Hyndman, R.J and A.B, Koehker (2006), "Another Look at Measures of Forecast Accuracy", International Journal of Forecasting 22, 679-688.

Lebow D.E. and J.B. Rudd (2003), "Measurement Error in the Consumer Price Index: Where do we Stand?', Journal of Economic Literature XLI, 159-201.

Muço, M., P. Sanfey and A. Taci (2004), "Inflation, Exchange Rates and the Role of Monetary Policy in Albania", European Bank for Reconstruction and Development Working Paper No. 88.

Siklos. P.L. and I. Ábel (2002), "Is Hungary Ready for Inflation Targeting?", Economic Systems 26, 309-333.

Wellink, A.H.E.M. (1998), "A Central Banker's View on Price Stability and Monetary Policy" *BIS Review* 89.
COMMENTS ON: THE PORTFOLIO OF ECONOMETRIC MODELS FOR INFLATION FORECASTING AT THE BANK OF ALBANIA

Bill Allen*

It is extremely important for central bank forecasters to monitor their own performance ex post, ie after the event. Therefore, this evaluation is greatly to be welcomed, and I think it should be repeated regularly. I should add that I am very impressed by the amount of work that the staff has done in the past year. I have a number of comments on the evaluation, and on the issues raised by it. They fall into three groups: the interpretation of the results, the implications for forecasting procedure, and the implications of the simulations in section 4 of the paper for monetary policy.

1. INTERPRETATION OF THE RESULTS

For inescapable practical reasons, the evaluation is confined to forecasts of the 12-month headline rate of inflation made for 12-month periods beginning April 2004 – April 2005 and ending September 2006 – September 2006. There are eighteen such periods. The paper acknowledges that this is a very short sample.

The sample is in fact even shorter than it appears on the surface. The eighteen 12-month periods over which the forecasts

are evaluated are overlapping. This is a very important limitation. If, for example, one of the equations makes a large positive error in forecasting the 12-month rate of inflation 7 months in the future, then it is highly likely that it will also make a positive error in forecasting the 12-month rate of inflation 8 months in the future. In other words, the data points are not independent.

The data points would be independent if the forecasts that were being evaluated related to non-overlapping 12-month periods. This is of course impossible, because there are not enough data to support such an evaluation. However, it has to be recognised that the evaluation is based on fewer than three independent data points. This is an unavoidable limitation, but it means that not many conclusions can be drawn from the results.

It is an unfortunate fact, not specific to Albania, that a proper evaluation of central bank forecasts cannot take place until several years after the forecasts have been made. For one thing, the forecasts typically have a two year horizon; and for another thing, the evaluation requires a series of independent observations. If only one observation emerges every two years, it takes a very long time before a proper evaluation becomes possible. This is an important limitation on the accountability of central banks.

As just noted, most inflation targeting central banks claim that they base their policy decisions on the forecast 12-month rate of inflation two years in the future. The evaluation that we are discussing today implicitly assumes that it is the forecast of inflation just one year in the future that is important for monetary policy. However, I do not suggest that the Bank of Albania should extend its forecast horizon from one year to two.

I don't think it's surprising that the model MON_GROUP forecasts directional changes better than the other models. MON_GROUP is a bottom-up model that uses more micro information about prices of particular kinds of products than the other models. Such models can be expected to do relatively well at forecasting the very short-term behaviour of inflation. There is a risk that they do less well at forecasting longer-term trends.

2. IMPLICATIONS FOR FORECASTING PROCEDURE

As already indicated, I think that the data sample is so short that it is impossible to draw any strong conclusions from this evaluation. However, some decisions simply have to be made promptly, using whatever information is available, and the results of the evaluation can surely be used in making them. For example, the Bank of Albania may well want to identify the best inflation forecasting equation available to it in the present state of knowledge.

The results of the evaluation can be used to construct such an equation, as a weighted average of the three equations that were tested in the evaluation (I am assuming that the requirement is for a monthly forecasting equation). The weights in the weighted average should be computed so as to minimise the RMSE (or some other measure of the size of forecast errors) of the final equation. The computation of the weights need to take into account the RMSEs of the three equations that were evaluated, the correlations among the errors of the three equations, and the RMSEs, and the correlations among the errors, of forecasts of the 'exogenous' variables contained in the three equations (but see the next section for comments on the treatment of 'exogenous' variables).

The paper moves very fast from a description of the evaluation of the models to a proposal for presenting forecast uncertainty to the public. I agree with the proposal for presenting forecast uncertainty to the public, but I think that there are a number of issues which logically come after the specification of the equations and before the publication of a forecast incorporating uncertainty.

The final forecast will not normally be the raw prediction of an equation, but will typically be reviewed and probably adjusted using human judgment based on knowledge of the current economic situation. This is an entirely proper practice. It is not realistic to believe that all of the factors relevant to the rate of inflation in the coming year can be captured in a single equation. Therefore, it is entirely reasonable for the predictions of the equation to be adjusted in arriving at a final forecast.

One important issue is whose judgment should be applied in arriving at the final forecast. In some countries, such as Sweden and the United Kingdom, the group of people responsible for monetary policy decisions, ie the central bank board or the monetary policy committee, applies its judgment in arriving at the final forecast. It is then the MPC's forecast. In the European Central Bank, by contrast, the published forecast is based on the judgment of the staff of the central bank, not the members of the Governing Council, who are responsible for monetary policy decisions.

The main problem with making the forecast the responsibility of the MPC is that the MPC may not agree on the forecast. In that case, the final forecast, which is normally published, has to represent some kind of average of the views of the members. In this case, none of the members may actually agree with the forecast, and there is normally no indication of how widely dispersed are the views of the individual members of the MPC. Therefore, there is something unsatisfactory about forecasts that are the joint responsibility of the policy-making group¹. Forecasts that are the responsibility of the central bank staff are not subject to this problem, but of course they do not represent the views of the policy-making group.

3. IMPLICATIONS OF THE SIMULATIONS IN SECTION 4 FOR MONETARY POLICY

The paper notes, quite correctly, that the inflation forecasting equations include explanatory variables, and that forecasts of the explanatory variables are needed in order to make forecasts of inflation. The explanatory variables include:

- Arranged prices
- Import prices

- Monetary aggregates
- Unemployment rate
- Exchange rate
- Government expenditure

Section 4 reports simulations of the effect on inflation of an exchange rate depreciation, a rise in unemployment, a rise in government expenditures, and a rise in arranged prices.

Some of these simulations can be highly misleading, because the explanatory variables are not truly exogenous. The exchange rate simulations are an example. They show that if the exchange rate depreciates by 10%, the rate of inflation three quarters later will be higher than otherwise by 2.05%. However, in reality, the effect of an exchange rate depreciation on inflation depends crucially on why the exchange rate depreciation has occurred. Consider two examples:

- a. Monetary policy becomes temporarily more expansionary. In this case, the exchange rate would be expected to depreciate, and the rate of inflation would be expected to rise. In this example, the simulation results reported in section 4 are realistic.
- b. Foreign demand for Albanian exports collapses. In this case, the exchange rate would again be expected to depreciate. However, there is no reason to think that the rate of inflation in Albania would increase, because aggregate demand would have fallen.

Likewise, the simulations of a change in unemployment are potentially misleading. If unemployment were to fall because demand in Albania had increased sharply relative to potential output, then an increase in inflation would be expected to occur, as the simulation in section 4 indicates. But if unemployment were to fall for a different reason, eg because people became more anxious to save and were willing to work for longer hours, then the rate of inflation would be more likely to fall than to rise. This implies that, while inflation forecasting equations of the kind described in this paper have a role to play in monetary policy, it is only a limited role. A great deal of human judgment will be needed to conduct monetary policy successfully in Albania.

^{*} Bill Allen, Senior Economist, Brevan Howard Asset Management LLP and Former Director of the Bank of England.

¹ In countries where monetary policy decisions are the responsibility of just one person, this problem does not exist. New Zealand is such a country.

A PROPOSAL FOR THE INFLATION TARGETING COMMUNICATION STRATEGY OF THE BANK OF ALBANIA

Erinda Nervaj Rigers Kaso Ina Kraja Doriana Lama Marga Peeters*

ABSTRACT

This Discussion Paper defines the Communication Strategy for Inflation Targeting of the Central Bank of Albania as the objective of increasing and reaching the (full) awareness of the public on monetary policy issues, in general, and Inflation Targeting, in particular. The Paper distinguishes between the period before and after the official launch of this monetary policy framework in discussing the tactics of this strategy. A gradual launch of IT is proposed and an intensive dialogue of the central bank with the different target groups in the society on promoting price stability as a necessary condition for a sustainable economic growth. The Paper further proposes the monitoring of the public's perception for steering its policy better. It unfolds furthermore the BoA's plans for the next two years.

1. INTRODUCTION

This paper lays down the communication strategy for Inflation Targeting (ITCS). It is a first attempt to write down the intentional steps to be made in the near to medium- to long-term future. Our hope is that we will have a comprehensive discussion on this ITCS and that the final steps put on paper will be given a successful follow-up.

The outline of the paper is as follows. Section 2 sums the current communication tools and intensity of the communication of the Bank of Albania (BoA) on monetary policy, and IT, in particular. It explicitly mentions the obligations by Law. Section 3 puts Albania in an international perspective. The aim of this section is to point out specifics for our country that can help or hamper the communication. Section 4 discusses the steps for launching IT in Albania. The aradual character of the launch is stressed throughout. Next to this, the ITCS is defined as increasing and reaching the (full) awareness of the public on monetary issues in general and IT in particular. Section 5 thereafter describes the communication once IT has been launched. Section 6 provides in broad lines the main ingredients of BoA's actions for the calendar years 2007 and 2008. Appendix A contains empirical evidence on the Albanian knowledge on central banking and monetary policy, as an example to monitor the public's perception of the BoA's communication.

2. OVERVIEW OF THE CURRENT COMMUNICATION BY THE BOA

2.1. SOME WORDS ABOUT THE HISTORY

During the last years, the BoA changed from an institution that kept its decisions undisclosed into an institution that is convinced about the need for transparency pertaining its objectives and actions. The way of communication of the BoA with the external public has consequently drastically altered also.

The BoA made its first Economic Bulletin public in 1998. Since 1998 the number of publications has increased significantly. At the same time land-shifts occurred due to technological developments and our own experiences with the public. For increasing transparency and communication with the external public, the world-wide-web page of the BoA became operative in 2002. This internet site has improved gradually and a new release will appear soon, making it more attractive to the public.

Box 1 A snapshot of the written and verbal communication

Written – published in hard copy and/or electronic form

• Periodical reports

Regular analyses appear in the Monthly Monetary Policy Report, Semi-Annual Monetary Policy Report, Quarterly Review of the Albanian Economy, Annual Report, Supervision Annual Report, Balance of Payments Bulletin, Monthly Statistical Report, Economic Bulletin, Survey Analyses.

• Educational materials

Publications aiming at informing the public on various issues related to the objectives and functioning of the central bank titled among others:

- (i) Speaking simply about inflation
- (ii) The story about the ice cream
- (iii) Central bank in brief
- (iv) Banking system in Albania
- (v) BoA's monetary policy instruments and procedures for their execution
- (vi) The European Central Bank, Euro, our money!
- (vii) The European community and the euro
- (viii) What is price stability?
- (ix) Preparations for the Euro
- (x) Treasury bonds: How do we know them? What are their advantages?
- (xi) Why do households need a personal budget?
- Others

Presentations of the Governor in Parliament; News conferences; Legal set; Governor's lectures; BoA's history; News announcements; Discussion materials; Various manuals.

Verbal

- Press conferences
- Speeches of the Governor or other administrators of the BoA at international conferences
- Informal meetings with the decision makers of the BoA and representatives from the Government, business, financial markets, media and academics
- Meetings of the Governor with the five branches and its regional representatives
- Interviews

Electronic

• Internet site www.bankofalbania.org

Accessible to everybody, in an Albanian and an English version.

Only a part of the communication with the public has been an obligation by law. This concerns the bi-annual policy statement by the BoA to the Council of Ministers and the Parliament. All other communication, like the news conferences of the BoA, the meetings of the Governor in national and international forums with academics as well as representatives from businesses are the own initiative of the BoA. A precise regulation about the transparency and the confidentiality in the BoA appeared in 2000 by the Supervisory Council.

The historical overview of the Monetary Policy Report at the BoA for the period 1998 – 2005 can be found in detail in Shtylla and Suljoti (section III, 2006).

2.2. CURRENT PRODUCTS AND COMMUNICATION CHANNELS

Box 1 lists the publications of the BoA split into the written and verbal ways of communicating, along with the channels chosen for communication with the public. The Printing House of the BoA prepares all these publications, together with the Foreign Relations, European Integration and Communication Department (FREICD). The written publications are available in the library, by e-mail or ordinary post at request.¹

2.3. THE LAW, AUTONOMY, ACCOUNTABILITY, TRANSPARENCY AND CREDIBILITY

If a higher level of common understanding on the part of central banks diverse audiences is reached, central banks shall attain greater levels of credibility and transparency. This will contribute significantly to growing support for central bank institutionalism, in the sense of the autonomy² required to achieve their objectives. From this perspective the main responsibility of a central bank's communication policy consists in ensuring that its vision of the world is commonly understood, and in transmitting information in a language that is shared by the public.

This model shown in chart 1 highlights the interrelation between the three components of a process in the left box, indicated by the twin-headed arrows. If adequately implemented, the trilogy of components autonomy-transparency–accountability shall converge into the generation of credibility, which in turn will feed into the ultimate behavioural objective i.e. the possession of reputation and prestige. Credibility can be considered as a flow generated by the trilogy that contributes to a stock of reputation



and prestige. This behavioural model is enveloped and made feasible by a steady and sufficient flow of communication and information.

The interrelation between these three behavioural pillars of modern central banking indicated by the three boxes in Chart 1, although simple and at this stage obvious, contributes to emphasizing the dimension of the relationships between a central bank and its social actors.

An autonomous central bank operates under rules designed to prevent political interference. The BoA acts as an autonomous institution. It acts upon the decisions as taken by the Supervisory Council of the BoA. Following are some of the provisions as stated in the current central bank law pertaining to the autonomy of this institution.

From Law No. 8269 dated 23.12.1997 "On the Bank of Albania", article 1, point 3 it follows that "Within the limits of its authority established by this Law, the Bank of Albania shall be entirely independent from any other authority in the pursuit of its objectives and the performance of its tasks. Any person should respect the independence of the Bank of Albania, and no person shall seek improperly to influence any member of a decision making body of the Bank of Albania in the discharge of his duties towards the Bank of Albania or interfere in the activities of the Bank of Albania."

No later than six months after this law came into force and at six months' intervals thereafter, the Bank of Albania shall publish and deliver to the Council of Ministers and the Assembly of the Republic of Albania policy statements containing³:

- a) an assessment of the accomplishment and maintenance of price stability during the preceding 6 months and a prospective description for the next 6 months;
- an assessment of the monetary, credit and exchange rate policy implemented by the Bank of Albania during the preceding 6 months;

- c) a description of, and an explanation of the reasons for the monetary, credit and exchange rate policies to be followed by the Bank of Albania during the next six months;
- a description of the principles that the Bank of Albania proposes to follow in the adoption and execution of monetary, credit and exchange rate policy during the next two years, or a longer period upon the decision of the Bank of Albania.

2.4. CURRENT COMMUNICATION ON INFLATION TARGETING

Since last December, when the BoA stressed its intention to adopt IT as its monetary policy by organizing an Open Forum⁴, this regime has been mentioned to the public more often and more nuanced. During 2006 the BoA has referred to IT in several occasions for making the public acquainted. Table 1 quotes speeches and other oral communications by the Governor of this calendar year with a reference to IT. These communications counted about 30% of all communications by the Governor.

Table 1 Overview of Governor's speeches with a reference to IT in 2006

Date	Event	Speech of the Governor	Press release
20 January	XI Euromoney Forum	"In the face of these forthcoming developments we are considering alternative regimes such as IT that could transmit central bank signals better and are more suitable for keeping the balance between economic shocks and inflation. There are theoretical benefits of the IT regime is comparison with other regimes as summarized in a series of paper by Mishkin <i>et al.</i> (1997, 2000 and 2002), such as the broader information base that it utilizes, its relatively higher flexibility with regard to supply shocks and the fact that it is easily understood by the public. On top of this, there is also the success of the other European transitioning and developing economies, such as the Czech Republic, Hungary, Iceland, Poland and Turkey. Bearing the above issues in mind the BoA retains that a switch to IT over the medium term will put us in a better position to strike the right balance between growth and stability. Accordingly, it has initiated steps to improve its governance structure and strengthen its analytical capacities, with technical assistance from the Fund. To this end, an Open Forum took place at the end of last year where top experts from all around the world discussed most of the issues regarding the implementation of IT. The main motivation for moving to the IT regime is the anchoring of inflation expectations in the medium to longer term while allowing some room to respond to shocks. I am conscious that going to fully fledged IT is a process that requires hard work with several preconditions in place. Our Forum clearly showed that it is not a one-off decision. It should be a smooth process. This holds in particular for a transitioning country like Albania. Our country faces different challenges and virtues compared with developed countries."	

31 March	Meeting in Gjirokastra	"We are trying to institutionalize this further, examining the possibility of adopting the inflation targeting regime, where the focus is precisely on the announcement and pursuance of a specified inflation rate"	
22-26 April	At the Spring Meetings IMF and WB		"The meeting concentrated on the macroeconomic developments and the macroeconomic situation in Albania, like the developments in the banking and financial sector, the objectives that the BoA has set regarding the implementation of the IT-regime" " The Governor mentioned the work of the BoA for the increase of its institutional capacity and its focus of the technical, institutional and legal preconditions needed for the implementation of the IT-regime"
25 May	Parliament	"I would like to mention that after the Fifth Conference of BoA in March 2005, in Durrës, the peak of the public activity was reached in December, last year, when in the presence of the CEO of the BIS Mr. Knight, the BoA presented its monetary aspirations towards the framework of IT "	

5 June	Conference Economic Governance in the EU	"So, we are aiming to move to a more formal inflation targeting framework over the medium term. We have accordingly initiated steps to improve our governance structure and strengthen our analytical capacities"	
26 June	Meeting with the Bosnian Herzegovian Governor		"Mr. Fullani acknowledged his homologue with the BoA's work starting in 2005 regarding the knowledge, analyses and implementation and required preconditions for the possible implementation of the IT-regime in the future "

3. ALBANIA IN INTERNATIONAL PERSPECTIVE

A "successful" communication by a central bank is at least timely, well-received and well-interpreted by the public. At the same time each central bank depends on many factors that it cannot influence itself. These, let us say, "exogenous" factors will have to be identified. In order to do so for the BoA we compare in this section Albania with other countries that recently introduced a new monetary policy strategy. After the identification we can point more clearly at those factors that may hamper our communication, on the one hand, and those factors that might facilitate it, on the other hand. But first we pay in this section attention to one aspect that is evidently within the influence of the central bank, its transparency, and we compare this with several other central banks.

3.1. TRANSPARENCY

Table 2 points out that the BoA is almost as transparent as the European Central Bank and the Federal Reserve Bank. This

follows from the overall index on transparency at the bottom of this Table indicating 8.5 points for Albania in 2006. Of the other countries shown, the Reserve Bank of New Zealand is most transparent with 14 points. The European Central Bank has only 10.5 and the Federal Reserve only 10. We can thus conclude that Albania is almost as transparent as these main institutions according to this measurement. From the marking of the components of the transparency index, shown in the rest of this Table, it follows that Albania underscores these institutions on e.g. the publication of its forecasts and the econometric models. This is where the BoA expects to catch up during the next year (as explained in section 5).

These outcomes are relevant to the ITCS as it highlights that the communication by the BoA receives a positive mark. In addition to the issues mentioned in Table 2 probably some other events, like the annual conference of the BoA, the speeches of the Governor (see Table 1) and the Open Forum or Round Table and the publication of their proceedings could be added. So in our view, if it comes to the timing and quantity of communication by the BoA, it is hard to point out shortages.

Let us now go to the exogenous factors.

Central Bank Transparency	ВоА 2006	ECB	Bank of Japan	Reserve Bank of New Zealand	Swiss National Bank	Bank of England	Federal Reserve
Political Transparency	3	3	1.5	3	2.5	3	1
Formal Objective	1	1	0.5	1	0.5	1	0.5
Quantitative Targets	1	1	0	1	1	1	0
Institutional Arrangements/ Independence	1	1	1	1	1	1	0.5
Economic Transparency	1	2.5	1.5	3	1.5	3	2.5
Economic Data	1	1	1	1	1	1	1
Policy Models	0	1	0	1	0	1	1
Central Bank Forecasts	0	0.5	0.5	1	0.5	1	0.5

Table 2 Transparency of the BoA in comparison with other central banks

Procedural Transparency	1	1	2	3	1	3	2
Explicit Strategy	1	1	0	1	1	1	0
Minutes	0	0	1	1	0	1	1
Voting Records	0	0	1	1	0	1	1
Policy Transparency	1.5	2	1.5	3	2	1.5	3
Prompt Announcement	1	1	1	1	1	1	1
Policy Explanation	0.5	1	0.5	1	1	0.5	1
Policy Inclination	0	0	0	1	0	0	1
Operational Transparency	2	2	1.5	2	0.5	2.5	1.5
Operational Objectives	1	1	0.5	1	0.5	1	1
Transmission Disturbances	0.5	0.5	0.5	0.5	0	1	0
Evaluation Policy Outcome	0.5	0.5	0.5	0.5	0	0.5	0.5
Total	8.5	10.5	8	14	7.5	13	10

Source: Note (2005), and also Eijffinger and Geraats (2006)

3.2. OTHER RELEVANT ASPECTS

Table 3 lists aspects for Albania and some other countries that one could call "exogenous" factors to a central bank. It is obvious from these findings that Albania has an extremely low number of internet users, and a low media reach. On the other hand there are many bank offices in relation to the Albanian population. So, among others, this would favour a communication through the bank offices than through the media.

We will keep these facts in mind in addition to the fact that Albania is at a different stage of the transitioning process than many of the other countries.

Table 3. Comparison with other central banks in some respects relevant to the ITCS

	Albania	Romania	Czech Republic	Turkey	EMU
Average annual inflation in the last five years (before IT was launched)	3.11	29.08 %	8.5%		
Literacy rate	99%	97%	100%	87%	99%
Print media daily reach (WNA report 2005)	4%	49%	52%	65%	

Recent economic crisis	'01 / '97		1997	2001	
Population per bank (1,000)	184	570	293	1492	45
Population per bank office (1,000)	12	8	6	12	2
Internet users (per 1,000) in 2004	24	208	470	142	443
People without a bank account	82%				

Source: World Bank and Bank of Albania data for 2005

4. THE LAUNCHING OF IT IN ALBANIA

The BoA wants the launch itself to be a gradual process. In this Paper the formal start of IT is defined as the moment where the IT framework in all its aspects is announced in a special publication or event.

One may ask how big the changes will be in case of a move from the current monetary policy strategy to formal IT, from different angles like internal and external. Internally the BoA is moving to the development of all required internal analytical tools; the main deficiency is here the lack of timely and reliable data. From a viewpoint outside the BoA, the development of the CPI is stable, on an annual basis even most of the last 5 years around 3% +/- 1 percentage point at each quarter. In these respects the launch of IT would thus not imply a major landslide.

But ultimately most relevant, in order to make IT a successful monetary policy framework, inflation expectations of the main actors in the economy should be anchored to the 3%-target at the horizon of one year as defined in the IT-framework for Albania. It is here where we can identify two major points for attention:

- expectations by Albanian actors are in general shortsighted, i.e. not more than one quarter ahead,
- knowledge about the interaction of the development of prices (inflation), interest rates and economic growth and consequently also the interaction of monetary and fiscal policy is low.

We need to treat these issues but we will first define the Communication Strategy in general.

4.1. THE INFLATION TARGETING COMMUNICATION STRATEGY OF THE BOA

A strategy is a long-term plan of actions designed to achieve a particular goal of an individual or organization. Originally confined to military matters, the word became common practice in disparate fields, one of which is communication. A communication strategy is the plan containing details on the formal communications activities for achieving the goal.

People are not ideal information processors. Due to this fact, a central bank should give thought to the question of what its public needs to know mostly and how to express this in the best way. It thus needs to have a communication strategy and not simply a concern for transparency or convey of information and letting the receiver see whatever it wishes to see. This will hold for each central bank, but for Albania in particular due to its short central banking history. The BoA and its branches will have to build many more communication bridges.

It goes without saying that the BoA wants to achieve a successful implementation of the IT framework. The Communication Strategy of the central bank is in this context crucial. The goal of our Communication Strategy is to increase and reach the (full) public awareness on IT with the appropriate communication delivered to the different target groups at the right time for the sake of credibility.

It may take some time before this strategy comes fully to fruition. For now, in order to make IT a successful monetary strategy for Albania, the central bank envisages to make big steps towards the achievement of this objective.



In view of the before mentioned strategy the BoA should convey messages to the audience, which is the public of Albania, with the clear intent in order to elevate the public awareness on monetary issues. Chart 2 shows this triangle of audience, intent and message with the bilateral relations between each of the two elements. The main aim will be achievable by an appropriate interrelation of all three elements.

4.2. COMMUNICATION ABOUT WHAT?

The strategy is in essence about IT. More general is the need for understanding monetary issues that also include basic knowledge about the functioning of the central bank as monetary authority. We will come back to this general knowledge at the end of this section.

For communicating the IT-regime, there is a break down in the following components:

- a) The policy objectives According to the Law on the BoA the principle objective is to achieve and maintain price stability. Under IT this will imply headline inflation 3% for one year ahead with a margin of +/- 1 percentage point.
- b) The policy framework This is about the autonomy of

the central bank in relation to the government and the commercial banks, the transparency of the conduct of monetary policy and the accountability of the BoA to the public.

c) The assessment of the inflation forecast and/or an evaluation of the economy – Only perceived by some groups of the public, as defined in the following subsection.

4.3. COMMUNICATION WITH WHOM?

The identification of the main target groups in Albania is a prerequisite for achieving an effective communication.⁵ Chart 3 gives a picture of the target groups of a central bank in its communication, by Smart (2000) for Canada, that could be applied for any developed country. Here below we distinguish five main groups in Albania and prioritise them on the basis of the current situation in Albania.



a. Parliament and Government representatives

In particular, a constant communication line between the BoA and the Ministry of Finance is a key for success of IT.⁶ At least, the BoA should have a formal acknowledgement by the Minister of Finance as it concerns IT. Seeking this support is high on the agenda of the Governor. See also Luçi, Gjermeni and Gazidede (2006). b. Financial markets, the business sector, and trade unions' representatives

Meetings of the Governor with the directors of the commercial banks, representatives from the business sector such as the Chamber of Commerce and representatives of the trade unions will become even more relevant in the transition process towards a market economy. At the same time these business people are crucial in transmitting information on monetary policy to a broader public. They can explain monetary and financial issues orally and at the same time written material of the BoA can become available at their business locations.

c. Media and analysts

The media is a crucial group due to its influence on the public's opinion and understanding of monetary policy. The BoA intends to continue the organisation of specific meetings/ trainings for all journalists and analysts on the IT, informing them on this regime and providing the background information for the motivation. The BoA will evaluate its performance after the trainings in the future. The outcomes of surveys may lead to a search for alternative ways for conveying its information effectively.

d. Academia and schools

The dissemination of IT can occur at a technical level. The teaching role of central bank experts can disseminate IT-information through a growing cascade.

e. General public

Rather than the IT regime, our focus will have to be first on the role and functioning of the central bank and the necessity of low inflation.

4.4. MONITORING OF THE ACHIEVEMENTS OF THE STRATEGY

The key decision makers in an economy are usually forwardlooking, central banks affect the economy as much through their influence on expectations as through any direct, mechanical effects of central bank trading in the market for overnight cash. As a consequence there is good reason for a central bank to commit itself to a systematic approach to policy that not only provides an explicit framework for decision making within the bank, but that is also used to explain the bank's decisions to the public.

The IT framework can be successful (if and) only if the actors in the economy anchor their inflation expectations according to the inflation target. For being able to do so, these actors will primarily need to have a good understanding of the functioning and role of the central bank in the economy.

In order to measure the progress that the central bank is making with its communication strategy of increasing the awareness of the public on monetary policy issues it is relevant to develop some monitoring tools. Appendix A gives an example for doing so. It analyses the outcomes of some recent surveys. The monitoring of the public awareness could in this way be done at a regular basis.

5. COMMUNICATION UNDER THE IT FRAMEWORK IN ALBANIA

This section concentrates on desired communication of monetary policy after the official launch of IT. It provides a list of tools aiming to communicate the monetary policy decision making framework to all stakeholders under the IT regime. The communication framework we intend to apply once inflation targeting has been launched is based on principles of transparency, on the structure of decision making body and on whether inflation targeting is flexible or strict.

The issue on transparent communication is based on the principle that the "central bank should reveal enough about its analysis, actions and internal deliberations for interested observers to see the logic behind each policy decision" (Blinder et al., 2001). For one reason, transparency partly serves to the accountability of the institution in exchange for the independence it enjoys. And second, it assists in aligning expectations with

policy objectives. In short, transparent communication is considered to be one of the most visible hallmarks of inflation targeting (Blinder and Wyplosz, 2004). For best results, central banks should communicate a great deal about the methods that are applied to guide policy decisions, including forecasts, and clarify ways of implementing policy changes.

Selection of communication tools under IT will also vary according to the way decisions on monetary policy are taken. Blinder (2004) argues that decisions on monetary policy are articulated differently if they are taken by consensus or by individual voting. In the first case, one voice for all will do, while in the second one, the diversity of opinions should be displayed to the markets. In BoA's case, it is presumed that the decision making body will take monetary policy decisions by consensus. Therefore, means of communication which will deliver these decisions are tailored accordingly.

The issue whether inflation targeting is strict or flexible relates more to accountability matters. How much should you explain to the public or how should you account for in case you miss the target. The BoA's inflation objective is a target point of 3.00 per cent with a tolerance of +/-1.00 percentage point, which implies that it has enough flexibility in achieving the target. Further, BoA has been granted full independence since it has the right to formulate the monetary policy and set its own main objectives and tasks by law. From this perspective, it has the obligation to explain fully and with transparency its monetary policy decisions and implementation of these decisions, as well as deviations from the targets. It is held accountable to the legislation for achieving the target but this is limited to regular⁷ or on demand briefings and explanations to legislation rather than taking extreme punishment measures. For this reason, communication of policy matters will be based on explaining in an understandable manner the performance of monetary policy and reasons for deviations from the target.

Following is the list of items that will be used to communicate monetary policy under the IT. This list draws from experience of other countries that have adopted IT as their monetary policy regime and that have been successful in keeping inflation under control. This list should not be considered exhaustive, and other items can be added or existing ones can be modified in the future according to the events that will follow.

a) Inflation Targeting Document

The release of this document will mark the official announcement of the IT regime by the BoA. The purpose of the document will be to describe the agreed framework in full detail. Autonomy, transparency, accountability and many related principles and features of the IT in Albania will be laid down. At the moment of the publication IT will be a logical consequence of all previous conscious steps by the BoA.

b) Inflation Report

All IT central banks produce Inflation Reports (IRs). It is an essential component of an inflation targeting bank's overall communication strategy. The purpose of the IR is to give background information for monetary policy decisions and hence it is a forward looking document. It also aims to provide knowledge about economic assessment from central bank and to guide externals to understand monetary policy. The frequency of IRs ranges from six to three months. As the target for inflation will be measured as an annual rate each quarter, IR Albania will measure inflation performance and policy adequacy on quarterly bases.

As described in Shtylla and Suljoti (2006), the IR will cover three main areas: (a) an analysis of the inflation developments with a view to comparing them with past expectations and to the target. Additionally, it will explore the factors that have determined headline inflation. This includes output, monetary developments and financial developments; (b) forecast of the inflation along with uncertainties associated with it. Along with the forecast, the report will present the baseline assumptions regarding external factors; (c) interpretation of the current situation and forecasts, together with future uncertainties, and monetary policy decisions suitable to the situation.

The IR is at the same time the main inaredient during policy decision making meetings. These meetings are planned to take place eight times per year. It implies that the cycle of the decision making process is around 12 weeks, ending with the IR and having another monetary policy meeting in between (as schematically outlined in the Manuscript)⁸. The work for building the IR will start by drafting an internal document that contains BoA's staff views on inflation outlook and different alternatives how the economic and financial situation might progress. This is what it is referred as situational report, which will be presented and discussed at the SC in a preliminary meeting. The IR will be produced outlining the most probable course of events and will be released for publication after the regular SC meeting. Being the most important document, which will explain future outlook and policy decisions at central bank, the report will aim to be written clearly, simply and transparently.

The IR will also satisfy central bank obligations of accountability to legislation. By law, central bank is held accountable to the parliament and explains policy actions regularly (as of now, the frequency is set biannually). The IR is considered to be the most thorough and complete document for doing that.

In line with the gradual approach for launching IT we propose to convert the current Monetary Policy Report over a two years period into an IR. The focus can go gradually more to inflation. As a major step, we propose the publication of the inflation forecasts in one year time. This should be done graphically for one year ahead with the use of a set of models. Whether or not this graphical presentation consists of confidence bands only, or a fan chart, is still a topic of our internal debates.

The quality of report writing can increase considerably in case the statistical framework becomes more mature. Statistics Department is currently building a user-friendly internal database that can over time grow into a fully-fledged data device for internals and externals. The quality of report writing can alongside also improve by putting more efforts and actual incremental news value in the reports from month to month, or as we prefer it, from quarter to quarter. We propose to move to quarterly report writing as soon as possible. The main reason is that the news value of a new issue of the report will be significant.

c) Press release after the meeting

Decisions on monetary policy will be publicly announced as soon as they are made, with no informational advantage to a 'selected group'. In some cases, IR, when it contains monetary policy decisions, is a sufficient means to explain. However, press releases after the meeting will aim to strengthen the understanding of policies in the markets and help build confidence. Emphasis will be put on situations when inflation has moved outside the boundaries by providing careful and detailed explanations. This will also call for press conferences rather than simple press releases. Moving outside the boundaries does not pose a threat to central bank reputation as long as the latter is able to provide clear and reasonable arguments for that. Introducing press releases after policy meetings will add value to transparency, communication with the public and aid to increase policy efficiency.

d) Publication of the discussion paper on the inflation forecasting models

Preceding the official launch of IT the BoA intends to publish the document describing the current econometric forecasting framework drafted by experts of the Monetary Policy and Research Departments (Çeliku et al.2006). It is not only a decision making tool but also an important communication device. Publication of the specification of the econometric models will add to transparency of central bank policies and to the openness with the markets. In turn, this will promote stability in the markets and will help to predict the transmission of monetary policy in the economy.

Publishing a paper on the models is in our view recommendable before publishing the first inflation forecasts. It gives the public insights in the tools that are used for making these forecasts. The paper should be scientifically well-funded. At the same time the forecasts as such can usually not straightforwardly be deducted from the models. Experts' judgment will be involved in any inflation forecast.

e) Publication of the discussion paper on the macroeconometric model for Albania

The recently developed macro-econometric model for Albania (MEAM) for simulation purposes is in the course of being used for internal simulation running for monetary policy decision making. A draft discussion paper is written by experts of the Research Department of the BoA (see Dushku et al., 2006). The paper treats the monetary policy transmission mechanisms in a broader sense than the inflation forecasting models. MEAM includes all transmission channels that are deemed important currently, either explicitly or implicitly. The BoA also intends to publish this model along with the inflation forecasting models (see the previous bullet). Possibly MEAM will also be used as a basis for making macro-economic forecasts. Prerequisite for this is that the statistical basis can be considerably improved.

f) Publication of minutes of the Board

The format of the minutes depends also on whether monetary policy decisions are taken by consensus or by individual voting. In the description of the committee on monetary policy issues, we assume a collegial decision. Accordingly, minutes will give a general account of opinions and expose main arguments in favour and against the decision taken without revealing individual votes of the members. Our objective is to be able to publish them with a delay of two weeks.

g) Appointing one member of the Board as a 'spokesperson' on monetary policy decisions – one view for all decisions

Conflicting signals can confuse market participants and other stakeholders. For this reason, it is recommended that the decisions will be more clearly conveyed if articulated by one voice. Since the monetary policy decision making body of BoA is a collegial one, the job to express one view becomes easier. All members are responsible for the decision, but one person can be appointed to communicate externally. Usually the role is given to the chairman of the board, who in BoA's case is the Governor.

6. WAY FORWARD IN 2007-2008

On internal communication in 2007:

- a) Monitoring of the awareness of the public as mentioned in the first point under external communication here below, along the lines of the survey analyses in the Appendix by the FREICD and MPD. The outcomes have to be given a follow-up.
- b) Transparency and timeliness, broadness and deepness in the statistical framework and, in specifics, launch of a fully-fledged user-friendly statistical database by the Statistics Department.
- c) Regular presentations by the Research Department on the econometric inflation forecasting models and the MEAM in notes and internal seminars.
- d) Launch an intranet.
- e) Up-to-date information, preferably on an intranet, in particular on IT for stimulating and upgrading the awareness process of the own staff.

On external communication in 2007 - 2008:

- f) Communications by the BoA on inflation issues, among others informative programs with different target groups.
- g) Official publications on inflation issues.
- h) Surveys by the BoA will concentrate on inflation issues according to the ITCS, not necessarily in quantity but surely in deepness. The answers to elementary questions such as "What is inflation?" and "Which amount of inflation is the BoA's target?" are to be conveyed to the public.
- i) A gradual conversion of only the quarterly publication of the Monetary Policy Report into an Inflation Report, without publishing monthly reports.
- i) Graphical publication of inflation forecasts for one year

ahead in the Monetary Policy Report in the fourth quarter of 2007.

- k) Publication of a paper on the econometric inflation forecast models on the internet in English with a nontechnical summary in Albanian – i.e. the updated and matured paper titled Inflation Forecasting at the Central Bank of Albania. This should preferably occur before the publication of the first inflation forecasts.
- Improvements in timeliness, broadness, deepness and user-friendliness in the statistical database on the internet.
- Publication of the paper on the macro-econometric model on the internet, in English with a non-technical summary in Albanian – i.e. the updated and matured paper titled A Macro-Econometric Model Approach for Albania.
- n) Launch of a fully-fledged internet.
- o) Make the Governor's speeches and Governor's performances gradually a concrete reference to IT.
- p) Start emphasizing the relevance of the independence of the central bank – via academic research papers by staff of the BoA and Governor's speeches.

Amata, Jeffrey D., Stephen Morris and Hyun Song Shin, 2003, Communication and Monetary Policy, BIS Working Papers, No. 123

Bank of Albania, 2006, Manuscript of the Open Forum on the Preconditions for Inflation Targeting in Albania, held December 1-2, 2005

Bernanke, Ben, 2004, Communication?, Fedspeak. BIS review 2/2004

Blinder, Alan, Charles Goodhart, Philipp Hildebrand, David Lipton and Charles Wyplosz, 2001, How do central banks talk?, Geneva Report on the World Economy, No. 3, Geneva/London ICMB/CEPR

Blinder, Alan and Charles Wyplosz, 2004, Central Bank Talk: Committee Structure and Communication Policy

Çeliku, Evelina, Diana Shtylla, Gent Hashorva, Rajna Hoxholli and Vasilika Kota, 2006, Inflation Forecasting at the Central Bank of Albania, Internal Discussion Paper

Center for Latin American Monetary Studies (CEMLA) - Central Bank communication group, March 2004, Code of Principles and Best Practices in Central Bank Communication

Dushku, Elona, Vasilika Kota and Gëzim Binaj, 2006, A Macro-Econometric Model Approach for Albania, Preliminary Discussion Paper

Eijffinger Sylvester and Petra Geraats, March 2006, How Transparent are Central Banks?, European Journal of Political Economy, 22/1, pages 1-21

llirjani, Altin and Evan Parker-Stephen, June 2006, Globic Opinion Poll # 2: Albanian Public Opinion, Chapel Hill, NC, USA, available on the world wide web

Luçi, E., M. Gjermeni and A. Gazidede, 2006, Coordination between the Central Bank and the Ministry of Finance under Inflation Targeting, Discussion Paper for the Round Table on Inflation Targeting 2

Lybek, Tonny, 1999, Central Bank Autonomy, and Inflation and Output Performance in the Baltic States, Russia, and Other Countries of the Former Soviet Union, 1995-97, IMF Working

Paper WP/99/4

Note, Sofika, 2005, The Transparency of the Bank of Albania, Discussion Paper (in Albanian) and in the Proceedings of the Workshop on Monetary Issues and Inflation Forecasting, January 2005

Shtylla, D. and E. Suljoti, 2006, The Transition from the Monetary Policy Report to the Inflation Report at Bank of Albania, Discussion Paper for the Round Table on Inflation Targeting 2

Smart, Graham, 2000, A Central Bank's "Communications Strategy": The Interplay of Activity, Discourse Genres, and Technology in a Time of Organizational Change, http://wac. colostate.edu/books/selves_societies/smart/

APPENDIX A. MONITORING THE PUBLIC AWARENESS

A.1. EMPIRICAL RESULTS

Some field information is available from 2003 for measuring the knowledge of the public about institutions and inflation. Employees of the central bank asked about 200 people in Tirana some questions in multiple choices in October of that year. Chart 4a presents the results of a question on the term "inflation". It follows that the majority of 53% provided the correct answer that inflation stands for the increase of the price of goods and services in the economy. The other 47% linked inflation incorrectly with the exchange rate, the price of food or something else. The pies in Charts 4b and 4c show that the question about the institution that publishes inflation and the institution that is responsible for price stability got a correct answer by respectively 40% and 56%.

These outcomes on the knowledge of the public can be marked as positive, as a large share of these Albanian people gave the correct answers to these three questions. One may however wonder whether these outcomes are representative for the whole population in Albania. Probably there is an upward bias towards the correct answer due to sample selectivity. The survey took place only in Tirana, which is the capital where probably most people are familiar with the monetary economics life. Moreover, the choice of interviewees may have biased the answers as these central bank employees may have been questioning their relatives or close friends who know about the interviewee's work.

Further analyses on this survey show that only 17% of the people in this sample gave the correct answer to all three questions illustrated in Charts 4a-4c. This correct-answering does not depend upon the gender, age or profession of the person taking part in the survey.

In July 2006 the public in Albania was asked specific questions on monetary policy issues. The national statistical office INSTAT took them as a part of the regular quarterly consumer confidence surveys among 1,206 households in Albania⁹.



Charts 5a-5h illustrate the outcomes of eight questions that we indicate as "right" or "wrong" questions. The order in which they were asked is reported at the end of this Appendix. We graph them here according to the percentage of correct answers, from highest to lowest. We classify all black parts in the pies as "correct" and the other parts are "wrong". So, the black slice gets smaller from Chart 5a to 5h.

Chart 5a shows that 94% households answer that economic arowth is important for Albania. In a similar vein, Chart 5b indicates that 92% households deem price stability important for the country. More interesting to the BoA is the knowledge about the central bank. Chart 5c and 3d illustrate that 84% correctly answers that the central bank sets interest rates and 79% mentions even its correct name. We are moreover pleasantly pleased that, according to Chart 5e, even 74% of the households answer that stable prices are a prerequisite for economic growth. The concept of inflation seems though more difficult. Only 61%, see Chart 5f, knows its definition. Most difficult to answer seem the auestions on the relation between interest rates and inflation and the task of the central bank. Only 42% knows that it is higher interest rates that bring inflation down (see Chart 5a). Chart 5h indicates that just a meagre 27% answer that the central bank is to keep prices low. Instead, the central bank is assumed to be responsible for economic growth first and foremost, by a large majority of 60% of the households.

The results in Charts 5 and 4 are not conflicting. According to these results the public understands the concept of inflation, once a clear definition in a few multiple choices is provided. They also know the Bank of Albania. If it comes to the main task of the central bank answers seem to become fuzzier. The BoA could and should pay attention to its communication strategy to clarify its role. Also, surely according to these findings, the working of monetary policy is even harder to understand. But this latter point is for us easier to understand. A tightening monetary policy is probably also in Albania considered to be an unpleasant measure. In general people do not find it easy to grasp that a high inflation is only avoidable by means of such a tightening policy, so let alone in Albania where there is not yet a properly functioning monetary policy mechanism.






From this questionnaire we can draw some more inferences. We saw in Charts 5a-5h that many people give correct answers. A check on the number of households that gives only right answers turns however out disappointingly. Only 66 households, or 5.5% of the sample, answer correctly to all these eight questions. Interestingly, it turns out that 17 of these 66 households never read or hear about the BoA in the media and 6 only once a year. So, there is no strong link between the knowledge of the public about the BoA and its monetary policy on the one hand, and the presentation of the BoA in the media (see also Chart 5i) on the other hand.

Table 4 sheds some more light on the issue. In case this questionnaire of about 1,200 households is representative for the Albanian population, one concludes that 65% of the population "passes the exam" on the central bank and monetary policy; they know the name of the central bank, that the BoA sets interest rates and that price stability as well as economic growth is relevant to Albania. Many people (17%) loose track when the term "inflation" falls, let alone when the relationship between interest rates and inflation is mentioned (20%). The BoA's future communication c/should focus on these topics in the near future for increasing this score.

monerary policy		
	Survey questions	% of households providing cumulatively correct answers*
1	Economic growth is important for Albania	94
2	Price stability is important for Albania	90
3	Central bank sets interest rates	78
4	Name of the central bank	65
5	Long period of economic growth is only achievable in case of stable prices	52
6	Definition of inflation	35
7	Higher interest rates bring inflation down	15
8	Main task of the central bank	6

Table 4 Knowledge of Albanian public on the BoA and monetary policy

* The percentage in this row applies to a correct answer to the question in the corresponding and all previous lines.

It is further relevant for future communications to point out that each of these questions has a relatively high number of people not answering or saying that they do not know the answer, i.e. the category "no answer" in the Charts. Concerning the name of the central bank, e.g., this category contains 12%. So, these 12% do not give an answer even after hearing or reading the multiple-choice answers among which the name Bank of Albania. It is remarkable that these people even do not want to guess. Also, even a question like in Chart 5i on the BoA in the media, has a non-response of 1%. Possibly people are ashamed to reveal their behaviour or true knowledge, or they are simply for another reason not pleased with all this questioning.

These "no answer" cannot come from a consistent nonresponse, as we eliminated this group from the sample. We mark this group as deserving more attention in the future. This is a group among the public for which the BoA has a task to fulfil. The BoA is to convince them on the relevant role of the central bank in all people's interest, and on the importance of having good statistics via questionnaires for policy purposes. The central bank can gain credibility, and should gain it.

More inferences come from econometric regressions. We run some probit regressions on the dummy variables right and wrong for each of the eight questions in the Charts 5a-5f. As explanatory variables we use the age of the respondent, his/her education, employment, and city.

The outcomes show us that the group of unemployed and the retired people score significantly negative on the questions concerning inflation, i.e. the definition and the relation to interest rates. The reason may be that their personal interest is more concerned with prices and that interest rates are not to their direct personal benefit due to the absence of savings or debts. This will hold in particular in their situation of a moderate social security or elderly benefit, or even penniless situation.

In contrast to these two groups, the self-employed provide significantly answers in line with our insights on the issues under investigations. Due to the fact that they have to run an own business, their awareness of financial matters may be more extensive. Noteworthy is further that the group of employees in the government sector does not pop up significantly in our analyses. Like the employees in the private sector, there is no sign that they significantly affect the scores.

The respondents with a university degree significantly score better than the respondents with only a primary school education, if it comes to questions 3 until 6 in Table 2. Probably the basics of central banking and monetary policy were learned at the university and those who went there have not forgotten about it. For the other questions the education of the respondents does not seem to matter.

Also age does not seem to matter a lot. We distinguish in our questioning between the groups from 16 to 29 years, 30 to 49 years, 50 to 64 years and above 65. Only on the question of the definition of inflation, younger people significantly respond that this is about price changes whereas people above 65 significantly give another answer. But over all, for all these questions, age is not so relevant.

The smaller questionnaire among far less people, presented in Chart 4, included only people in Tirana. An advantage of this consumer questionnaire is that it stretches widely throughout Albania. The sample was held in 17 cities. Against our intuition, our econometric results show that the people in Tirana do not outperform the rest of the country. They definitely do not give



significantly correct (or wrong) answers. The city that clearly underscores is Lushnjë as most respondents get only 3 out of the 8 questions right. Also Lezhë and Sarandë turn out to be less informed on central bank and monetary policy issues.

Chart 6 provides information on the expectations of the 1,200 households on the future level of inflation with a oneyear horizon. It follows that about 30% of the households in the sample foresaw in the second quarter of 2006 inflation in the range of 2% to 4% in the next twelve months, so in line with the inflation target zone that the central bank prophesizes. This 30% may not seem high. A comparison with the previous quarters shows though that the percentage has considerably increased. Remarkable is further that more people expect inflation to be lower than 2% than above 4%. This asymmetric perception is probably due to the relatively low inflation in the recent years or even, with a myopic view, considering the first months of this year (1.4% in January, 1.3% in February and 1.5% in March). It is also likely that "inflation" is confused with "consumer prices" that people preferably do not want to rise.

Regular and more information are required before drawing strong conclusions on these empirical results. The good news is though that these empirical results seem promising for IT. ¹⁰

A.2. PRELIMINARY CONCLUSIONS

According to the analyses presented in the previous section we conclude that about 65% of the Albanian population succeeds in answering the basic questions on the importance of economic growth and the name of the central bank and its role as interest setter. A significant share of 17% looses however track when the term inflation is used. The stratifying of the sample according to education and place of living did not render any significant differences.

As a follow-up step to these results we suggest the following. First, simple ways have to be found to explain inflation to a broad public. In particular, the FREICD can find ways in their oral communication to link this complicated term to "prices" that go much more to the pocket of people. Second, another type of stratification can be taken into consideration such as the target groups as distinguished in section 3. One may expect business people in the financial sector to be well-aware of monetary policy. Third, it can be kept in mind that the inflation forecasts will be published in a graphical form by the central bank. For the group of people that is familiar with the term their preference can be asked on e.g. 2 to 3 options for its presentation.

Some words on the questionnaire being prepared by the BoA-INSTAT-GTZ.

A.3. QUESTIONNAIRE IN JULY 2006 AMONG 1,206 HOUSEHOLDS

- 1) What is the name of the central bank of Albania?
- a) Bank of Albania.
- b) Savings Bank.
- c) Other.
- d) I do not know.
- 2) How often do you read/hear in the newspapers or on TV about the central bank of Albania?
- a) Daily.
- b) At least once a month
- c) Once a year.
- d) Never.
- 3) What is the main task of the central bank?
- a) Keeping prices high.
- b) Keeping prices low.
- c) Economic development.
- d) Something else.
- 4) What is inflation?
- a) A relative change in prices.
- b) Something else.

- 5) Having in mind Albania's economic conditions, what do you think is the optimal rate of inflation?
- a) 0%-2%.
- b) 3%.
- c) Above 3%.
- d) Another percentage.
- 6) Does the central bank set interest rates?
- a) Yes.
- b) No.
- 7) Economic growth is important for Albania.
- a) This is true.
- b) This is false.
- 8) Price stability is important for Albania.
- a) This is true.
- b) This is false.

9) Which statement is true?

- a) A long period of economic growth is always achievable.
- b) A long period of economic growth is only achievable in case of stable prices.
- 10) Which statement is true?
- a) Higher interest rates bring inflation down.
- b) Lower interest rates bring inflation down.

* Ina Kraja, Director of the Foreign Relations European Integration and Communication Department, Erinda Nervaj and Rigers Kaso, specialists at the Foreign Relations European Integration and Communication Department, Doriana Lama, Head of the Financial Markets Office of the Monetary Policy Department and Marga Peeters, resident IMF monetary policy advisor. The authors wish to thank, without implicating them, Bledar Hoda, Niuton Mulleti and Sofika Note for their constructive comments on previous drafts.

¹ See www.bankofalbania.org or write to the FREICD.

² We prefer the term autonomy to independence as autonomy entails operational freedom while independence indicates a lack of institutional constraints (according to Lybek, 1999).

³ See Law No. 8269 dated 23.12.1997 "On the Bank of Albania", article 2, point 2, and the amendments in Law No. 8893 dated 25.07.2002.

⁴ The aim of the Open Forum was to reemphasize the BoA's intention to launch IT and to identify the preconditions for IT.

⁵ "The importance of a wide range of communication tools targeting various audiences can only be underlined for a successful monetary policy in a modern market economy" (see the comments of the ECB in the Proceedings of last year's Open Forum).

⁶ See the comments of Governor Jelašić of the Serbian central bank in the Manuscript of last year's Open Forum.

⁷ We deviate in our views from Fed-views as at the Open Forum of last year, Mr. Stone of the Federal Reserve Bank of Philadelphia emphasized the regularity of the communication "All the more, *ad hoc* policy meetings based on *ad hoc* policy documents should be minimized. This not only helps the central bank in its communication with the public but also helps the decision making body to maintain internal discipline."

⁸ This scheme does not exclude situations where threats on inflation performance would call for immediate measures and an occasional meeting will be held accordingly.

⁹ For the purpose of our analyses 9 households were deleted

from the sample for no-responses, to none of the regular questions, nor to these 10 monetary policy questions. So, 1197 households remain in our sample.

¹⁰ Other news follows from the study by Ilirjani and Parker-Stephen in the United States in June 2006. According to their findings 79.6% of 1,182 Albanian respondents trust the Bank of Albania. This is more than the presidency (79.3%), and far more than the local government (74.6%), the government (71.6%), the parliament (67.8%), the prosecutor's office (53.6%) and the court system (49.8%) in Albania.

COMMENTS ON: A PROPOSAL FOR THE INFLATION TARGETING COMMUNICATION STRATEGY OF THE BANK OF ALBANIA

Gülbin Şahinbeyoğlu*

I. INTRODUCTION

An inflation targeting (IT) regime involves more than just announcing a numerical inflation target. In fact, the communication structure that the central bank puts in place forms one of the most significant features of this monetary policy regime. This fact opens a host of issues that policy makers need to consider when inflation targeting: making clear the objectives of monetary policy, announcing instrument targets (both contemporaneously and, perhaps, the likely path for the future), providing information about the economic and inflation outlook, and explaining policy decisions. All of these are key aspects of the central bank's communication strategy, which requires a careful as well as a comprehensive design.

Adopting a formal IT framework forms the medium-term agenda of the Bank of Albania (BoA). The paper prepared by Nervaj et al. (2006) is a first and useful attempt to specify the context and scope of the communication strategy of the inflation targeting (ITCS) regime that the BoA intends to follow in the

next two years. Given the strong emphasis in an IT framework of setting an effective communication strategy, the authors' attempt is clearly very important.

In my comments, following the existing economics literature, I first summarize the role of an effective communication strategy in the context of an IT framework, and then review the main channels of communication. In doing so, I attempt to develop a benchmark to assess the current as well as the proposed communication strategy for BoA. In the final section, I suggest further areas in which the paper might be developed, in drawing on to the Central Bank of Turkey's experience in inflation targeting so far.

II. THE ROLE OF COMMUNICATION IN IT FRAMEWORK

In other regimes such as exchange rate or monetary targeting, performance against the targets can be monitored continually. In contrast, under inflation targeting the central bank targets an objective which it cannot determine with complete certainty, and which it affects only with delay. These factors complicate the public monitoring of monetary policy performance. Thus, central banks adopting inflation targeting should also adopt a transparent monetary policy framework and share information regarding the views of policy makers as well as monetary policy actions, so that the public can make a fair evaluation of central bank performance, and be sure that the central bank is indeed keeping to its stated target.¹

Speaking at the 1999 Central Bank's Governors' Symposium, Mervyn King referred to the UK's experience in the early years of inflation targeting as follows:

"We wanted to acquire credibility and you cannot do it easily without a track record. But you can do something on the way to developing a track record. We felt that by being transparent -by explaining not only what the target was but also how we thought about the economy- we could actually acquire some credibility. So if we were doing things privately, we should say what we were doing. Our motto became "do as you say and say as you do", and that guided the construction of our framework with an inflation target and a high degree of transparency."

King (2000)²

King's reference specifies the main motivations for transparency, which are valid for almost any inflation targeting country. In this context, if we evaluate the current monetary policy framework of the BoA, we see that it has already embodied some key communication features of the IT regime and that it can even be seen as an "implicit" form of inflation targeting. It would therefore have been good if the paper had tried to assess this existing practice. The paper might also give a clearer definition of what form of IT the BoA is currently implementing, as well as what decisions have been taken over its ultimate form. These are key inputs, since a communications strategy can only be effective if it is clear what the strategy is trying to communicate.

III. ITCS: EXISTING PRACTICE

In this section I would like to outline what I understand to be the key elements of the current monetary policy regime. In the next section, I look at how it might evolve:

There is an explicit mandate of price stability and a preannounced inflation target

The BoA was given a clear mandate of price stability in the amended 1997 BoA Law. Since it is now in a transition period to IT, the BoA's current monetary policy has a two-tier approach. On one hand, there is a monetary targeting rule, with broad money (M3) serving as an intermediate target. IMF program conditionality also sets operational targets on balance sheet items of the BoA such as foreign exchange reserves (floor), domestic assets (ceiling) and overall domestic financing of the budget deficit (ceiling). But on the other hand, there is also a preannounced numerical inflation target, and the main monetary policy instrument is the weekly repurchase rate. As the launch date of IT approaches, the function of the monetary target is likely to disappear. This was the Central Bank of Turkey's experience during its implementation of implicit inflation targeting between 2002-2006. As Themeli and Kolasi (2006) states, the BoA is going through the same experience where monetary targets play only a supporting role, and do not determine monetary policy.

Monetary policy actions are partly transparent

Monetary policy decisions are voted in monthly meetings of the Supervisory Council (SC). Formed by nine members: including the Governor, two Deputy Governors and six outside members, the SC acts as the main decision-making authority. Monetary policy decisions are announced to the public via press releases covering a qualitative assessment of the possible risks on inflation and signals of likely future monetary policy actions. The BoA has also declared its intention to continue organizing press conferences when there is a change in policy rate.³

IV. ITCS: GUIDELINES AND FURTHER AREAS TO IMPROVE

As briefly summarized above, the BoA already acts with an implicit form of IT. However, there are further steps to be taken on the way to a full-fledged IT regime. The paper has already addressed some of these missing steps. However, further clarification with a more specific agenda would also be useful. Following the classification in Carare *et al.* (2002), I would like to summarize the main channels of an efficient communication strategy in an IT framework. This also provides us with a list of guidelines to evaluate the proposed ITCS for the BoA.

• Explicit mandate of price stability: The numerical inflation target should be explicit and announced to the public. The definition of the price index (whether consumer prices or

any other core measures) underlying the target as well as the time horizon (whether one year or a multi-year period) in which the target is to be achieved should be explained clearly to the public.

In that regard, the BoA is already announcing a numerical inflation target for a multi-year horizon. However, on the announcement of the monetary policy target, the role of the Government should be specified. Is it a joint target or is only the BoA responsible? Once this is determined, then procedures for announcing this can be set. For example, if it is a joint multi-year target set with the Government, but still subject to annual approval and extension, then a press conference with the Minister of Economy and the Governor of BoA is a common method of communication. This conference can be organized in late autumn, that is the usual time when the coming year's Government budget is being approved by the authorities, and when inflation targets for the coming year(s) are being set.

 Transparency of the policy instrument: The indicators best reflecting the monetary policy stance, the main monetary policy instrument, as well as the operations the central bank pursues in order to achieve the price target should be made clear to the public. In that context, the shortterm interest rate, which is the common monetary policy instrument in the IT framework, is simple enough to monitor closely and in a timely manner by the public.

Relating to the BoA's current practice, the weekly repurchase rate is the main monetary policy instrument and the decision is being voted in monthly SC meetings. However, the meeting dates of the SC, exact timing of the announcement of monetary policy decisions, and the publication dates of Inflation Report can be pre-announced to the public. This will increase the predictability of monetary policy, and can enhance internal discipline.⁴ The central bank should also consider the audience it is trying to target, and to present information in a way that can be easily understood. • Transparency of policy actions: Any changes in the stance of monetary policy should be communicated by the public without a delay. The announcement should include an explanation of the main reasons behind the monetary policy action, whether change or no change, and relate this to the economic and inflation outlook. Publishing official forecasts and sharing information about the likely policy stance needed to converge to the targeted inflation rate play a key communication role. However, the assumptions underlying the forecasts as well as the risks associated with them should also be well understood by the public.

In this regard, the paper might also describe the existing structure of press statements, and the press conferences that are held after SC meetings, together with suggestions for how these might be improved. Moreover, the content of the upcoming Inflation Report might also be more clearly specified. The paper's discussion of the Monetary Policy Report partly touches on this, as does the proposal for making it evolve gradually into an Inflation Report, which covers official forecasts and which has more forward-looking analysis focusing on the inflation outlook. Though, the central bank also should provide self-criticism on the past performance of its monetary policy actions. Economic and financial developments as well as the change in inflation outlook due to monetary policy actions should be discussed and made public. Therefore, an evaluation of past forecast performance and policy actions should also be included in the Inflation Report.

 Transparency of target breaches: The central bank should be explicit about the action plan in case of a target breach. Credibility can be badly hit if such violations are not managed well. Therefore, the central bank should signal any potential threats to the inflation target, as well as the planned measures to bring inflation back on target. Central banks pursuing IT are accountable for their actions to the public through regular publication of their official reports. Nevertheless, it is very important to set up a separate device in the case of target breaches. The paper suggests organizing a press conference rather than providing a regular press release. However, it is common practice for the governor of the central bank to write an open letter to the government explaining the reasons behind the target breaches, and the likely future policy stance that will produce convergence to the target. Additionally, the letter should also inform the public how long it will take for inflation to converge to the target.⁵

• Publication of technical documents: As mentioned by the authors, technical reports and notes issued by the BoA aiming to improve the public's understanding of the monetary transmission mechanism and of the methods used in inflation forecasts will form another pillar of the communications policy. In that respect, the paper mentions a plan to publish the document summarizing the econometric inflation forecast models used in the BoA decision-making process, preferably before the issuance of the first official inflation forecasts in the Monetary Policy Report, which may be in the last guarter of 2007. However, features common to emerging market countries, such as data shortfalls, continuing structural changes as well as vulnerability to external shocks make estimating statistical models extremely challenging. Therefore, such countries need to rely more on judgment in forecasting and policy decision-making. Both the academic literature and central banking experiences are in broad consensus on these issues. Countries like the Czech Republic, Poland, Brazil and Turkey did not develop formal econometric models during their first years of inflation targeting.⁶ Following recent experiences in emerging markets, the BoA may want to delay providing the technical details of the forecast models to a later stage of IT.

V. CONCLUSION

The communication framework of the central bank forms one of the most significant features of the IT regime. Since the central bank is targeting an objective which it can affect only with delay, this complicates the public monitoring of monetary policy performance. Overcoming this requires a transparent monetary policy framework. Therefore, the paper prepared by Nervaj *et al.* (2006) is a constructive attempt to specify the context and scope of the communication strategy of the IT regime that the BoA intends to follow in the next two years. This communication strategy is central to creating such transparency.

However, the BoA already acts with an implicit form of IT. As a result, the existing monetary policy framework already embodies key communication features. One way forward might be to look at this current practice in more detail, to draw lessons for how this might be improved. In addition, looking ahead, clearer decisions on what form of formal IT the BoA intends to adopt, and when, would help fill in the content of precisely what it is the new ITCS should be trying to communicate.

Against this background, the paper might have provided a clearer definition of the role of the Government in the IT regime, and then, could possibly propose more specific elements of the communication strategy, addressing such issues as: announcing the target, explaining monetary policy decisions, and how best to respond to target breaches. Having a history of more than two decades, the IT regime offers quite rich country experiences: these can provide guidelines for the BoA's near-term agenda, including in communications strategy. Therefore, the paper could be further enhanced by a discussion of country experiences and common practices, and thus, drawing central lessons, some of which I have tried to touch on in my comments.

* Gülbin Şahinbeyoğlu, Deputy Director, Research and Monetary Policy Department at the Central Bank of the Republic of Turkey. Views expressed are those of the author and do not necessarily represent the views of the Central Bank of the Republic of Turkey. I would like to thank Ahmet Kıpıcı and Cihan Yalçın for their useful comments. The usual disclaimer applies.

¹ See Debelle (1997) and Carare et al. (2002).

² Minutes of the Bank of England's 6th Central Bank Governors' Symposium, 4 June 1999, in Mahadeva and Sterne (2000), page 184.

³ See Themeli and Kolasi (2006) for further details.

⁴ Monetary Policy Committee (MPC) meetings in Central Bank of Turkey are held in two sessions between 2:00 pm and 5:00 pm on pre-announced dates. The first session hosts Central Bank authorities and specialists as well as authorities from the Undersecretariat of Treasury. In this session, related bodies of the Central Bank and authorities of the Undersecretariat of Treasury present their views on recent economic developments, which will then be opened to discussion. In the second session, to be held on the same day, members of the MPC makes the final evaluations about the outlook and vote the decision. The decision and its rationale is announced by the CBT with a press release between 5:00 pm and 7:00 pm on the same day, and it is also posted on the website of the Bank (CBT, 2005). There is also a detailed summary of the MPC meeting published in the following five business-day.

⁵ In case of Turkey, the provision in Article 42 of the Central Bank of Turkey Law states that "The Bank shall submit information to the Government in writing and inform the public disclosing the reasons of incapability to achieve the determined targets in due time or the occurrence of the possibility of not achieving such targets and the measures to be taken thereof."

⁶ See Carare et al. (2002) and Central Bank of the Republic of Turkey (2005).

Carare A., A. Schaechter, M. Stone and M. Zelmer (2002): "Establishing Initial Conditions in Support of Inflation Targeting," IMF Working Paper, No: 02/102, (Washington: International Monetary Fund).

Central Bank of the Republic of Turkey (2005): "General Framework of Inflation Targeting Regime and Monetary and Exchange Rate Policy for 2006," Press release, December 5, 2006.

Debelle, G. (1997): "Inflation Targeting in Practice," IMF Working Paper, No: 97/35, (Washington: International Monetary Fund).

Mahadeva, L., and G. Sterne (editors) (2000): Monetary Frameworks in a Global Context, Routledge, London.

Themeli, E. and G. Kolasi (2006): "The IT case in Albania: A tentative road-map for implementing IT in Albania," Bank of Albania Discussion Paper for the Round Table on Inflation Targeting 2.

THE IMPROVEMENTS IN THE STATISTICAL FRAMEWORK FOR INFLATION TARGETING IN ALBANIA*

Hilda Shijaku Kliti Ceca Evis Ruçi*

ABBREVIATION LIST

ASYCUDA – Automated System for Customs Data BoA – Bank of Albania BoP – Balance of Payments BPM 5 – Balance of Payments Manual 5th edition CPI – Consumer Price index DQAF – Data Quality Assessment Framework ECB – European Central Bank ESA – European System of Accounts FDI – Foreign Direct Investments FISIM – Financial Intermediation Services Indirectly Measured GDDS – General Data Dissemination Systems GDP – Gross Domestic Product GFS – Government Finance Statistics HBS – Household Budget Survey IIP – International Investment Position IMF – International Monetary Fund INSTAT – National Statistical Institute IR – Inflation Report IT – Inflation Targeting LSMS – Living Standard Measurement Survey MoA – Ministry of Agriculture MoF – Ministry of Finance MOU – Memorandum of Understanding

MPD – Monetary Policy Department

NACE Rev. 1 – Nomenclature statistique des Activités économiques dans la Communauté Européenne (Statistical classification of economic activities in the European Community) NSPD – National Summary Data Page OF – Open Forum PPI – Producer Price Index QNAM – Quarterly National Accounts Manual RD – Research Department ROSC – Report on the Observance of Standards and Codes

SBS – Structural Business Survey SD – Statistics Department

SDDS – Special Data Dissemination Standards

SNA – System of National Accounts

SRU – Unified Reporting System

UN – United Nations

VAT – Value Added Tax

1. INTRODUCTION

The prominence of inflation targeting in modern monetary policy making has led to a thoroughly exploration of many of the conceptual aspects of this strategy by the economic literature. However, there has been relatively little attention by the literature to statistical issues arising from the adoption of this new framework. However, central banks have gained some experience in devising special data categories needed for IT, building institutional and legal frameworks supportive to qualitative and credible statistics and enhancing the transparency and public understanding of the data used by monetary policy. This paper aims to address some of these issues for the Albanian statistical system, which were also raised in the Open Forum organized by the BoA in December 2005. It shows the progress already made in some regards and discusses the remaining problems.

The structure of the paper is as follows. The first part discusses the issues raised in the OF (in the manuscript and panelists' comments) related to the statistical framework which are later addressed in subsequent sections. A first issue covered in the

OF concerned the available economic information needed for modeling, forecasting and communication to the public such as the inflation report. The OF recognized a need for more timely data and better auality of data especially in the real sector and suggested the BoA to take an active role in producing some of the missing indicators itself, via surveys or data gathered from ministries and other advernmental bodies. Second, the OF recognized the independence and professionalism of national statistical agencies as a precondition for inflation targeting. As INSTAT is the main producer of statistical information and has by law a leading role in the national statistical system, the issue of independence is discussed in the view of its practices and legal framework, which should ensure no interference of the government or the central bank in the data dissemination process. The third issue discussed concerns the need of national practices to catch up with best international standards of data dissemination. These standards address IT statistical needs by increasing the amount of statistical indicators, promoting close cooperation among statistical agencies, enhancing the transparency of practices and adopting sound statistical methodologies. Fourth, in the framework of enhanced communication with the public and the media the BoA should develop practices to minimize misinterpretation of data and help the anchoring of expectations.

The second section follows up on the data availability issue; it presents main economic statistical indicators available from a statistical perspective, discussing methodologies, sources, timeliness and frequency. In particular, methodological aspects of some indicators the BoA intends to use as an alternative or complement to directly measurable indicators are described in more details.

The third section seeks to provide an assessment to the issue of independence of the National Statistical Office (INSTAT). To this end, the independence is defined to cover a legal mandate to collect data, independence in the choice of sources, protection of staff from outside interference and independence in the dissemination of statistical data. The fourth section deals with the cooperation with international organisations and foreign central banks which have already adopted an IT regime and developed statistical standards to address among others, IT requirements for statistics. In particular, this section shows the progress made and plans towards Albania's participation in the SDDS project by the end of 2007. Its relevance to IT is in the commitment of national statistical agencies in achieving and maintaining standards with respect to transparency of procedures, efficient use of information sources, sound methodologies and most important in the dissemination of a number of new indicators which are currently missing, such as wages, industrial production and quarterly national accounts.

The final section contains the conclusions of the paper.

2. THE STATISTICAL FRAMEWORK AS DISCUSSED AT THE OPEN FORUM IN 2005 – IDENTIFIED PRECONDITIONS

The OF organized by the BoA in December 2005 emphasized the need to further develop the entire statistical systems in the country as a precondition of inflation targeting. In addition, a number of specific issues to be addressed from the statistical point of view were raised by the panelists. The BoA, as one of the main statistical agencies in the country, intends to address these issues in cooperation with domestic and foreign institutions and private agents in the market. More specifically, the main issues raised in the OF follow in this section.

First, the OF (Manuscript) raised the issue of the availability of economic data needed for decision making, forecasting, modeling and communication to the public. Most of these data are produced by (or are a responsibility of) INSTAT, such as the consumer price index, producer price index, national accounts statistics, labour market data, foreign trade data, production, sales and investment data by economic sectors. In collaboration with INSTAT the BoA also collects data through surveys: such as the tourism and the foreign direct investment survey, the consumer confidence and the business confidence survey. Part of them is currently used in BoA reports and publications, however data need to become available more timely, at a higher frequency and the quality of these statistics is to improve. The measurement of informal economy and the potential biases arising from its neglecting needs special consideration (Deroose, 2005).

Beside enhanced cooperation with INSTAT, the BoA will seek additional channels of cooperation to help filling the information gap on real sector statistics. The OF proposed the BoA contacts with the Chamber of Commerce in Albania for gaining further information on Albanian companies, contact the real estate market operators to develop real asset price indexes, and expand regional coverage of the surveys it currently conducts through its Branches in five regions. The OF stressed the need for a greater role for the branches in collecting statistical information; continue surveying main companies in the respective regions on quarterly basis and obtain any regional information related to macro-economic and price developments either anecdotical or structural. Information from the Chamber of Commerce would include companies in the main cities of Tirana and Durrës that are not included in the Branches' surveys.

Second, the forum raised the issue of a professional independence of the statistical agencies and the national statistical office in particular. The statistical bureau INSTAT should be independent from both the government and the central bank, so as to provide assurance to the public and to financial markets that its estimates of the rate of inflation and other macro-economic variables are not subject to influence by the government or the central bank. Such independence will help to ensure the credibility of the inflation target and of monetary policy. INSTAT should have sufficient resources and sufficient status to enable it to attract talented people so that it can measure inflation and other macroeconomic variables comprehensively and reasonably accurately. In this respect, the sufficiency of financial and human resources, was mentioned by some panelists of the Open Forum (Deroose, Klöckers, Allen) as essential to ensure the credibility of the inflation targeting framework.

Third, channels of cooperation with standard-setting international institutions such as the ECB, the BIS and the IMF will continue to help Albanian statistics to catch up with best international practices of data dissemination. On the other hand the exchanging of experience with foreign central banks currently adopting IT in the region is regarded as a suitable tool to address with precedence data concerns in a relatively undeveloped statistical environment.

Fourth, in the framework of enhanced communication with the public and the media there should be a better communication and understanding of the data produced by the BoA to minimize misinterpretation of data and help the anchoring of expectations.

In the statistical view the standards of communication are set seeking to follow best international practices, in particular by:

- the public disclose of the terms and conditions under which statistics are collected, processed, and disseminated;
- the constant monitoring of the media's use of BoA's statistics to comment on erroneous interpretation and misuse of statistics;
- the advanced notice of major changes in methodology, source data, and statistical techniques;
- the monitoring and interpreting of discrepancies across different sources of data;
- carrying studies and analyses of revisions routinely and use them internally to inform statistical processes;
- providing adequate metadata accessibility.

3. THE EXISTING STATISTICAL FRAMEWORK, ACHIEVEMENTS IN 2006 AND REMAINING CHALLENGES

3.1 THE AVAILABLE ECONOMIC DATA

The economic information used by the actual monetary policy regime, remains key information in an inflation targeting regime. However, inflation targeting requirements focus more

on published data of prices and a better clasp of economic sentiment and inflation expectations (Carson et al., 2002), which mostly are provided by other statistical gaencies outside the BoA. The BoA is working on the establishment of an internal data base containing all national and international statistical information needed for modeling forecasting, to be completed by end of 2006. Actually, some departments of the BoA, collect, update and compute statistical indicators necessary to their activities. This database will centralize and standardize the information for use from all the interested departments. The SD has collected most of the data categories collected by the MPD and RD and has designed the metadata which shortly explain sources, methodologies, last updates, status of data (preliminary or final) and periodicity of data. The data already collected cover energy, transport, fiscal accounts of the government, agriculture and construction. A range of indicators such as core inflation, the real effective exchange rate, the nominal effective exchange rate, imported inflation, tradable and non-tradable inflation, confidence indices, that are computed from the BoA's staff and play a pivotal role in the analysis and projections, will also be included in this data base.

In what follows we describe the core data categories used by the models and forecasts, possible alternatives to them and existing problems in measurement and data sources. More specifically we focus on data produced by INSTAT, data produced by the BoA as part of its statistical responsibilities, and some data categories which methodology refinement is still in process and research is ongoing. In Annex 1 we present the list of the data needed for IR and modeling purposes and what is currently available. The list of presented indicators does not intend to be exhaustive; it will be enriched by future research in statistics to address remaining problems and emerging needs.

3.1.1 Data produced by INSTAT

3.1.1.1 Consumer Price Index

The advantages of choosing headline CPI as the price index to be targeted derive from its availability, its transparency and its

wide use in economic decision making. The CPI is compiled and published monthly, within 9 days after the end of the reference period. In general, the weights and price quotes used to compile the CPI are consistent with the 1993 System of National Accounts (1993 SNA) expenditure classification and the new Consumer Price Index Manual. The weights and prices are classified at the detailed 7-diait level of COICOP for all products. The weights for the existing CPI were derived from the 2000 HBS, which only covered urban areas, accounting for 45 percent of all households. However, the new HBS currently in preparation will cover rural, as well as urban, households. The 2000 HBS covered all households. irrespective of size or income level. The consumption activities of households engaged in productive activities, such as farming, were also included. However, as only urban households were covered, this was of minor importance. The 2000 HBS captured all purchases of market goods and services for consumption but no attempt was made to collect purchases of illegal goods as it was considered that this would have reduced response.

The 2000 HBS did not collect data on the sale of second hand goods. Therefore, only the purchase value of such items is included in the CPI weights. INSTAT plans to collect income from the sale of second hand goods in the new HBS, and use this in deriving the CPI weights.

The HBS uses a two stage sampling methodology. First, a random sample of enumeration areas is selected. Then households are selected using an interval sample. In 2000, 6,000 households were selected, and 5,387 responded. No attempt was made to replace non-responding households. This is likely to have introduced a downward bias in the results. This is because it is found that high-income households are more likely to refuse to take part in HBS.

In the new HBS, non-responding households will not be replaced with similar households in the same locality.

Source data are not accurately assessed. The only assessment made of the source data is to check for outliers and no information

on errors is provided by the survey methods. No checks are made on the quality of the data reported by enumerators, that is, by revisiting a sample of outlets to double-check the price quotes. The software used does not provide automatic checks on the data, while statistical techniques used do not account for the introduction in time of new products becoming important and quality changes to make adjustments in the CPI. INSTAT plans to instigate a program of checks on the reliability of the price quotes reported by the enumerators, introduce new products into the CPI as soon as they become important and make an adjustment to the CPI when a quality change is detected.

As for the regular conduction of the HBS there is still no plan due to deficient funds. INSTAT's staff opinion is that a conduction of the HBS every 3 years would be sufficient.

3.1.1.2 Producer Price Index

In addition to the consumer price index, INSTAT compiles the Producer Price Index, which is then continuously checked for consistency with the former. The PPI follows the concepts of the 1993 SNA and the new Producer Price Manual. The industrial classification used is NACE Rev. 1 down to the class (4-digit) level. Additionally there is an unpublished version of the PPI based on products, rather than industries, which uses the CPC classification down to the 8-digit level, which is not being used.

The PPI covers mining, manufacturing, energy, and water supply. Agriculture is also covered, but is not considered reliable, as the sizable non-enterprise activities are not included.

The weights and price collection programs are based on the Business Register and annual Structural Survey of 1998. The original enterprises were selected to cover 80 percent of the turnover of each sub-industry. When an enterprise ceases business, it is not replaced, even though the data to do so are available. Instead, the weights of the other enterprises in that sub-industry are recalculated to give the same total. Clearly, over time the coverage of turnover is likely to have reduced. Since the Business Register is derived from tax records, informal activities that do not register with the tax authorities are not covered.

INSTAT intends to replace the fix-base approach of calculation of the ICP with a chain index one (ROSC report, Response by Authorities). When using this index new weights could be assigned each year if deemed necessary and each transaction will be compared with its previous year December price. Renovation of the product list was already made possible using the results of the SBS of 2004 and the renovation of the list will be made each year whenever an enterprise stops producing an item. The replacement of enterprises that go out of business with another enterprise of a similar size in the same sub-industry will be made in December each year. The price questionnaires are being redesigned with the aid of international experts and the creation of an authentic data entry system in collaboration with IT staff is in process.

Source data are not timely; prices are collected for each month, but only once every quarter. During the month following the end of each quarter, the regional offices of INSTAT send out enumerators to collect data for each month of the previous quarter. These forms are then sent to headquarters within 45 days of the end of the quarter, where they are processed. The PPI for the months of each quarter is not published until around nine weeks after the end of the quarter. This means that the index for the first month of each quarter is not published until over four months later. *INSTAT plans to introduce monthly price* collection in the medium term.

3.1.1.3 National accounts

Annual GDP data produced and disseminated by INSTAT cover the entire economy and are compiled in accordance with the methodology of the "System of National Accounts" (1993 SNA). NA includes the following:

• annual value added and GDP at current and constant (previous year) prices by 25 major activities groups

based on NACE Rev. 1 and publishes a summary of nine activities. The BoA could request disaggregated data on 25 branches given NACE classification is also used in other statistical indicators;

• annual expenditure components of GDP at current and constant (previous year) price.

No GDP components by income approach are yet compiled by INSTAT. Based on the availability and accuracy of source data, the production approach is deemed best in estimating the GDP.

INSTAT has recently used an accelerated compilation program for national accounts that better balances accuracy and timeliness by adding a third release of the data, *improving the timeliness* from 18 months to 11 months after the reference period.

Major data sources in the production approach include:

- 1. annual Structural Business Survey (SBS);
- 2. accounting statements of financial and non financial enterprises (annual);
- 3. consolidated general government budget data and GFS;
- 4. statistics coming from different ministries;
- 5. annual Agricultural Survey by (MoA);
- 6. quarterly VAT records;
- 7. demographic statistics;
- 8. quarterly retail sales index (4-digit NACE);
- 9. quarterly surveys on short-term statistics (for manufacturing, construction, wholesale trade, hotel, and energy).

INSTAT has a regular program of monthly, quarterly, and annual surveys covering a wide range of economic activities, but the surveys are often of inadequate quality¹. The lack of a labor force survey limits the crosschecking of the accuracy of the regular source data. Surveys, such as the LSMS, HBS, 2001 Population and Dwellings Census, and 1998 General Agricultural Census are used to supplement the regular data sources. LSMS has been used instead of the HBS because of lack of funds for the later.

An up-to-date statistical business register provides the basis for sample surveys of enterprises based on the number of employees and industrial activities. The update of the register is made possible using the information of the administrative National Register of Legal Entities held by the Tax Authority and results of various surveys. However, the statistical business register does not include turnover data, which would improve the survey selection. INSTAT introduced in 2005 the annual "Survey on Newly Created Enterprises" to enhance the update of the statistical business register, particularly on employment and industrial classification. Survey selection is based on a stratified sample of the appropriate population by number of employees. The units in the register are stratified into three strata: small enterprises with 1-4 employees, medium sized with 5-49 employees, and large enterprises with 50 or more employees. There is also a General Register of Agriculture-Economic Units.

The annual SBS provides information on enterprises in production industries, construction, transport and communication, trade, and some service activities. The SBS also collects data on profit/loss, very limited breakdowns of intermediate consumption, and compensation of employees. The classification is by NACE for activities and products. The survey covers a sample survey for enterprises with 1-4 employees, and an exhaustive survey for those with five or more employees. More source data are needed for national accounts purposes, particularly on more details of intermediate consumption, change in inventories, and capital formation.

The SBS uses a random sample methodology for enterprises with fewer than five employees. The overall response rate is more than 95 percent. Imputation is only made for item nonresponse based on a sound method of averaging the group. Other survey statistical techniques are used for the estimations of missing cases and other sample errors.

In addition to the SBS, annual enterprise balance sheets provide supplementary data on value added, output, intermediate consumption, and turnover. Data from VAT files of the Directorate of Taxation provide information on taxes and turnover. Furthermore, data for the financial sector and insurance are from BoA and the Insurance Supervision Authority, respectively.

Agricultural survey is conducted by the MoA annually and the selection of farms is based on the "area sampling survey" method. However, this method is not consistent with the 1998 agricultural census and the 2001 population census. Nevertheless, INSTAT and MoA are cooperating to improve the agricultural survey, in 2007.

Source data on the production side provide at least 80 percent of formal activities. Since November 2005, improvements have been made to the estimates for the nonobserved economy by pulling together various source data and estimation methods. An internationally accepted methodology has been introduced to derive estimates of unobserved activities. The results of the new estimates were incorporated in the release of the 2004 GDP and the revised 1996-2003 GDP estimates. Prior to the introduction of the new method, the estimates of nonobserved activities were based on fixed ratios created by sector experts.

According to the expenditure approach, GDP is calculated as a sum of its elements, however not all of them are directly measured. For the expenditures approach, the independently derived components are only available for exports, imports, government consumption, and part of gross-fixed capital formation. A new methodology was adopted for the revised GDP data (for 1996-2004) in November 2005. Total GDP is derived from the production estimates.

The largest part of expenditures for final consumption consists of expenditures for private consumption. Final consumption of households is calculated in the basis of the on commodity method: consumption is estimated as a difference between what is produced/imported and consumed as intermediate consumption, gross fixed capital formation and changes in stocks and then final consumption of households is estimated as a difference between government consumption and non profit institutions consumption.

Additional statistical sources for this estimation are the Household Budget Survey, retail trade statistics and foreign trade. This methodology is based on unusually weak assumptions. Benchmark values were derived for 2000 using commodity flow techniques. Then household consumption was estimated for other years by assuming that it represented 90% of the increase in total GDP. The statistical discrepancy was estimated on the shaky assumption that it represents 1-2% of GDP. Consumption of NPISHs was based on an NPISH/GDP ratio from an old survey (1998). Then, since changes in inventories are only collected for a limited number of coverage of enterprises, they are derived by residual. Importantly, these weak assumptions are not provided to the public when the data are released. Prior to the adoption of this new methodology in 2005, balancing items for the GDP estimates from production and expenditure approaches were the combined change in inventories and statistical discrepancies.²

Source data are very limited for the expenditure approach, especially on household consumption. Data sources are mainly from the HBS (based on COICOP classification), government records, and foreign trade data. However, the HBS is not conducted regularly and does not cover the whole of Albania. The first Family Budget Survey in 1998 covered only Tirana, and the second one in 2000 covered Tirana and other urban areas, with 5,389 households. INSTAT plans launching the third HBS in 2006, which will cover the whole Albania. Data are lacking for expenditure on private education and healthcare. Supplementary data are from *ad hoc* surveys, e.g., LSMS (focusing mainly on poverty-related data), the social security fund, and data on government operations. These data are used to crosscheck household consumption data.

3.1.1.4 Sales Index

All VAT paying subjects are a component of the VAT register. Through the Regional Statistics Offices and the VAT Declaration
and Payment Forms deposited by the regional Directorates of Taxes, for each subject are identified: excluded sales, exports and taxable sales. Each subject is assigned a 4-digit activity code as defined in the NACE classification, based on its principal economic activity.

The compilation of the sales indexes SI for a given activity is done by comparing the sum of three kinds of sales S for all observations *i* during period *t* to the sales of the base period t_0 :

$$SI_{t} = \frac{\sum_{i=1}^{N} S_{it}}{\sum_{i=1}^{N} S_{it_{0}}} *100$$

The indices are compiled using as reference the month of January (index = 100), the average month, the previous month (index = 100), the first quarter, the average quarter, the previous quarter. These data are being published initially without seasonal variation corrections and are regrouped according the NACE classification.

3.1.1.5 Quarterly GDP estimates: An indirect method

Quarterly GDP estimates constitute a widely used indicator to fill the time gap between issues of national accounts data. The main advantage of this method is *timeliness*, as the direct method requires 11 months for the preliminary data to be available and 18 months for final data. Quarterly GDP estimates are available 3 months after the reference period for preliminary data and 6 months after the reference period for final data. In addition, quarterly estimates are less costly.

The main disadvantage compared to the direct method is accuracy, as the latter method encompasses much more information and sources.

The calculation of quarterly GDP is based on the SNA-1993, ESA-95, and the QNAM, IMF, 2000.

The approach used as in the case of annual GDP is the production approach. For each branch is estimated the value added. GDP at basic prices is computed as the sum of the value added for each branch minus FISM (*Financial Intermediation Services Indirectly Measured*, measured as interest received from financial intermediation minus interest paid). GDP at current prices is computed as GDP at basic prices plus taxes minus subventions.

Quarterly GDP estimates compiled by INSTAT are not published as they are still regarded as preliminary. INSTAT plans (in the short term), to revise the current methodology following the recommendation of the IMF ROSC mission (March 2006) in order to make the data available for publication (targeting end 2007). The long run objective as regards this indicator is the estimation of GDP according the expenses method and the income method.

The indirect method of quarterly GDP estimation consists in the following steps:

- Quarterly output indicators for each of the 25 branches (NACE) are created. In order to be reliable the ratio of each indicator with its benchmarking³ value should tend to a constant. The following sources are used:
- For industry, construction and nonfinancial services the data obtained from the VAT files available from the Tax Authorities;
- For agriculture, the annual data obtained from the MoA are transformed into quarterly by INSTAT (sector of agriculture);
- For financial services, the data are available from the BoA and the Insurance Supervision Authority.
- From the quarterly output indicators of the 25 branches the relative movement from one quarter to another is considered as *the important information* rather than the levels of the indicators.

- For each of the indicators the respective price indexes are computed. These indexes are used to transform the indicators from "current" (in terms of value) to "constant" (in terms of volume). As in the case of annual GDP the indexes used are chain indexes. By deflating the indicators with the corresponding indexes a time series of indicators in constant terms is obtained (starting from Q1 2001).
- Time series of the benchmarking values in constant prices and current prices for each of the above mentioned indicators are constructed.

The benchmarking process of quarterly indicators with the respective annual benchmarking values is made. This process ensures that the sum of values added for each quarter is equal to the annual estimate and preserves at minimal loss the relative movements for each quarter. This process is made through different mathematical methods referred in the QNAM (currently the proportional Denton method).

• A crucial assumption of this estimation is the assumption that the ratio value added/output is stable. This assumption is reasonable in short periods of time (within a quarter) and moreover in constant prices. This means that constant prices estimates are more reliable.

The accuracy (and the relevance) of this method is indicated by looking at the adjustment size, or the difference between the values before the benchmarking process and after the benchmarking process. A further drawback of these series is that they are subject to revision every time there is a revision of the national accounts.

3.1.2 Data produced and disseminated by the BoA as a statistical agency

3.1.2.1 Net external demand and Balance of Payments data

The BoP statistics are available on a monthly basis. The interest in data quality follows from explicit use of statistics in policy formulation such as the financial (monetary) programming of the BoA as well as its goal setting for the inflation targeting (with a spotlight on CPI). This interest was materialised in improving the methodologies dealing with two important indicators; foreign direct investments and remittances:

- The methodology of measuring the remittances improved recently with the IMF assistance in the coverage of the data source. Because of the important share of remittances in the Albanian balance of payments, several surveys will be conducted with households who receive money from their family abroad on quarterly basis.
- Foreign direct investment. The application of direct reporting on financial intermediaries (insurance companies- life and non life insurance-) as well as FDI surveys conducted (in cooperation with INSTAT) produced better data on the financial account of the BoP statistics.
- Improvements on trade data using the ASYCUDA to identify goods for repair, according to the BPM5-based breakdowns of trade of goods. New survey will be conducted on the big importing companies and new coefficients will be applied on freight and smuggled goods.
- The travel survey actually covers only 6 border posts (the most representative ones) while the immigration authorities provide data from all border posts. Hence, carrying out the travel surveys at minor borders posts improve the benchmark data and have better estimation coefficients used for the calculation of travel services.

Beside these, the compilation of IIP has recently started, a rather new concept with respect to other statistical aggregates designed at a national level. The financial openness observed via the IIP largely affects the conduct of the monetary policy. In practice, there is a reciprocal relationship between monetary policy which exerts an impact on the IIP via inferred changes in the value of external claims and liabilities, and the IIP which may influence key indicators, such as monetary aggregates and the exchange rate via inter alia the impact on net income earned from abroad (or paid to the rest of the world) by resident economic agents. The links between the IIP and the monetary policy are related to the monetary policy transmission channels; exchange rates, interest rates, the credit channel through banks' reactions to liquidity injections.

The net IIP can also influence interest rates. This is mainly the case in emerging countries like Albania recording a high current account deficit may need to increase the yield on inward investments by raising its interest rates in order to attract foreign financing and avoid a liquidity crisis. The rise in interest rates should ultimately lead to a contraction of domestic demand that reduces the trade deficit and eventually tends to restore the current account equilibrium.

As regards the credit channel, it is useful to analyze the impact of monetary policy on the IIP. The changes in monetary conditions applied to their domestic market will have an influence on the behavior of domestic banks on their investments abroad. A monetary policy on a slowdown in credit channel may encourage the domestic banks to increase their investment abroad and vice-versa.

Future plans are related to compiling an experimental IIP statistic for 2005 according to the standard components of the IIP recommended in BPM5 using all source data available (by end-February 2007). On the basis of the experimental IIP for 2004, the compilation of an experimental quarterly external debt data (so far the Ministry of Finance has been the only agency to publish the public debt only) for 2005 using available quarterly information on external assets and liabilities and cumulating flows from balance of payments for the other components of the IIP will start. The data source for the IIP and external debt will require quarterly reporting by significant firms of transactions in direct investment equity, debt, and reinvested earnings, in portfolio equity and debt, and in trade credit beside the annual survey on FDI.

3.1.2.2 Financial statistics

The BoA's responsibility to compile and disseminate monetary statistics is by tradition and deriving from its authority

to supervise the banking system, although this mandate is not specifically spelled out in the law. As part of the banking system regulatory framework, the BoA sets the reporting standards for supervision and statistical purposes seeking to meet best international practices to the extent permitted by the current stage of development of the banking system. Monetary statistics are compiled on a monthly basis, based on financial statistics, 2002. Given monetary targeting puts a lot of emphasis on the auality of these data and hence to auality in monetary data has been paid attention through all the decade, there is less room for improvement than in other economic statistics areas. However they will continue to be a relevant and most probably as auickest information available to policy makers even in an IT framework as they will provide an informative tool to the effects of monetary policy changes to the behavior of financial intermediaries and the user of financial services (the part of monetary policy transmission mechanism working through the interest rate and the credit channel). Following, the improvement in financial statistics mainly addressed 3 problems: reducing timeliness, increasing the statistical information on interest rates and loans, and extending coverage of other financial corporations in financial statistics.

The current monthly periodicity of banking statistics • follows IMF/ECB dissemination standards and meets users requirements. However the existing timeliness of banking statistics of 40 days from the end of the reference month well exceeds best practices and does not allow users and policy makers to monitor banking activities in time. Moreover, although the regular timeliness is already long, further delays in reporting occur, leading to increased pressure on compilers and poor data auality. The shortening of the timeliness was considered by carefully examining each of the statistical processes and designing procedures and plans to achieve the shortening of the reporting lag. First, commercial banks were asked to shorten the timeliness of reporting from 20 days from the end of the reference month to 15 days from the end of the reference month. This timeliness will be in

force starting from October 2006, and in March 2007 it will be further reduced to 10 days. Second, concrete proposals for investment in technology which will enable electronic reporting from commercial banks and reduce the time of processing the data (checking for errors and consistency over time) have been designed. Third, following the recommendations of the ROSC mission and best international practices, a revision policy which allows for dissemination of preliminary data, in order to meet timeliness at all times was designed. Thus when delays in reporting of some of the banks occur, users will be still allowed to use the best information available at that given time, while alleviating the pressure on reporting subjects and compilers and avoiding a quality decline.

- Given the increased importance of bank loans in the economy, and the attached importance to loans in the forthcoming IR, the BoA has started collecting detailed information on loans. This information will be part of the regular reporting SRU. The new forms will contain information on:
- New loans and existing loans to residents according to (i) the initial maturity of loans, (ii) size of the loan recipient and (iii) loan denomination.
- New loans and outstanding loans to residents and corresponding interest rates according to the aim of use and loan denomination for businesses and households.
- New and outstanding loans to residents according to the economic activity. Loans to businesses are classified according to the economic sectors described in international standards, NACE 2002, which is also adopted by INSTAT and often used by banks for reporting to foreign branches headquarters.
- Besides the commercial banks there are also a number of other financial corporations currently operating in Albania, whose activity needs close monitoring by the BoA as financial services they provide become very similar to what provided by the banking system. Although non-

banks' activity for the moment is very small its arowth is auite rapid and problems in its under regulated parts may undermine the confidence in the financial institutions in general. Thus there is a need for the BoA to closely monitor not only the segments on which it exercises licensing and supervision authority, but also on groups supervised by other institutions. Of these, there are 10 insurance companies, and 8 financial intermediaries primarily engaging in lending to the private sector. The BoA has started to compile data for other financial corporations and expand the list of reporting subjects for achieving a full coverage of financial institutions. Financial statistics data for other financial corporations started to be compiled on a quarterly basis since December 2004. In cooperation with the Supervision Department of the BoA a standard reporting system has been designed giming at a gradual convergence with the reporting by commercial banks. The reporting from other financial institutions is on a quarterly basis with a time lag of 40 days from the end of the reference period. For most of them the information regards balance sheet positions, profit and loss accounts, as well as indicators of capital adequacy, asset quality, liquidity. It should be noted that the weak financial accounting and reporting practices and a lack of harmonized asset valuation standards across the institutions, hinders the statistical product and makes comparison and aggregation difficult.

3.1.3 Data produced by BoA for internal use: Ongoing research in statistics.

3.1.3.1 Housing prices

Construction has been one of the most important sectors in the Albanian economy during the last decade. Given the lack of the available financial alternatives in the economy non financial assets and housing in particular constitute an important part of wealth of households and businesses. The periodic monitoring of the value of wealth held in housing thus enables the identification of possible asset bubbles and speculative movements in this market, which given the connection it has with both inflation and financial stability, could endanger the reaching of central banks objectives.

The literature describes several methods used to construct housing price indexes ranking from simple averages of prices in each of the observed periods, to more sophisticated econometric techniques. However, when the market is very volatile and the quality of data used is low, the information given by such indexes needs to be considered with care, and since there is no "best" index that outperforms all others; to reach to conclusions it is necessary to treat all possible indexes as complementary pieces of evidence. Following, we present some attempts made to measure these indexes in Albania. It should be noted that this is an ongoing work and the focus is more on the design of collecting information than in the quality of presented indexes.

Given the most important part of the construction industry and housing market has been concentrating in Tirana, restricting the sample to the capital, helps grasping some information on the possible movement of housing prices all over the country. The two indexes currently used are restricted to houses in Tirana and make use of the simple average method and the hedonic price method. Both methods use the same dataset; house prices as well as house characteristics are collected using newspaper announcements. The number of observations per period however is not the same ranging from 10 observations to 18 observations.

The simple average method includes all registered sales in a given period. This method has the obvious advantage of simplicity, however, it does control for different characteristics of houses which could influence prices. When there is much variance in housing prices the median could be used instead. The constructed index uses data collected for the last 5 years with a quarterly frequency. Then, the average price of December 2002 was selected as base year to construct an index. Beside the already mentioned shortcomings, a further problem with this index is the small number of observations in some of the periods, which may not capture the movement in prices over business cycles.

The hedonic price method assumes the house price is a function of the house characteristics. The method makes use of a simple regression to assess the influence of gualitative and quantitative house characteristics on prices. Given it controls for all these characteristics, adding a dummy for each period gives the changes in prices that are not influenced by changes in house characteristics, but by period changes only. Writing the model in a loa linear form, price indexes are obtained from the coefficients on each dummy variable. For this method it is important to have the same number of observations for each period, hence 50 observations per period have been used. The data cover the period Q1 1998-Q3 2006. The characteristics used control for the location of the house according 3 zones and the total surface of the house, the floor and the number of rooms. However, there are many other characteristics that can influence prices which are not controlled for at present, such as the building orientation in space, whether it has been reconstructed or not or the public infrastructure available. The lack of data for the above mentioned characteristics hampers the quality of this index for the moment, and will be addressed in the future collection of information.

Another approach of the hedonic price model uses a multivariate linear regression in each period, "explaining" the price in terms of these variables. By substituting the base period weight in each variable for the actual weight in each succeeding period, that part of the apparent change in price which is simple due to a different mix of characteristics is removed, leaving an index of "true" price changes for a consistent set of characteristics.

The first quarter of 2005 is chosen as the reference period and weights, q_{ii0} for each *i* explanatory variable are calculated. These constitute the proportions of the qualitative (categorical) variables in this time period. With prices recorded in natural logarithms, the regression coefficients for each of the *j* explanatory variables are computed in both the chosen base reference period (b_{ji0}) and for every subsequent time period (b_{ji}) . The price index for the current period (l_j) is then calculated as the ratio between the sum of the weighted coefficients for the current period and the sum of the weighted coefficients for the chosen base reference period.

In addition to these data collected, two surveys were undertaken, one covering real estate agencies and some large construction companies located in Tirana and the other survey covering commercial banks.

The survey for real estate agencies operating in Tirana covered 16 agencies with an experience in the market of 5-8 years and different large construction companies located in Tirana. The questionnaire covered four areas:

- General information on the agency. The questions of this part collect information on transactions done by the agency (in volume as compared to the previous year, the weight of dwelling properties, business properties and land in the total volume of transactions; the weight of new properties in total transactions).
- 2. The housing prices trend. In this second part the information collected covers actual prices offered by the agencies for dwelling properties and business properties, taking into account whether the property is new or old and the zone in which it is located. Information on rent offered is also collected. In addition this part collects information on agencies opinion on the factors which have led to price changes (such as changes in total supply of new property).
- 3. Financing of new properties. The third part of the questionnaire aims to identify the involvement of the financial system (particularly of banks) in properties transactions in order to identify the risk faced. In this part information is collected on how clients finance their purchases (bank loans, own money, remittances etc).

4. The expected trend of housing prices. The final part of the questionnaire focuses on agencies' expectations, on housing prices in the future, according the zones in which the property is located, properties characteristics and other factors.

In order to identify the types of mortgage loans and the risks associated with it, interviews with directors and staff of the 11 main commercial banks engaged in this business were carried out. The interviews aimed to collect information on the actual status of the portfolio of mortgage loans, the attitude to risk by banks in this type of business and banks expectations to the future performance of this portfolio. In more details the information concerned:

- The type of collateral required by banks to cover mortgage loans and valuation methods of the collateral;
- Interest rates for mortgage loans to businesses and households;
- Expectations of banks on housing prices.

3.1.3.2 Indicators of business confidence and consumer confidence surveys

Business confidence and consumer confidence indicators have been developed to supplement official statistics and their importance in decision-making stems from a number of advantages they offer as compared to direct methods. Their main uses are in:

- developing forecasts for the near future in the real sector of economy;
- filling gaps of existing statistical frameworks by supplementing data on economic activity, consumption, employment, prices, investment, saving, inflation expectations;
- providing direct explanations for inflationary pressures in the economy;
- filling the "frequency" gap of official statistics, and providing an assessment tool for their reliability.

The Business Confidence Survey

The business sentiment survey covers private registered businesses of production, construction and services sectors according the NACE classification of enterprises also used in the official statistics. The survey makes use of the same sample in different time periods with a revision margin of 8-10 per cent each year. The sample includes medium and large enterprises to ensure the panel is stable over time and to ensure the sample represents well the economic activities. The sample size provides coverage of 70 per cent of the turnover of the corresponding sector, 700 enterprises are covered from which 100 engaged in the service sector, 240 construction enterprises and 360 enterprises engaged in production.

The survey is organised in three parts. The first part provides information on the economic activity of businesses. The second part, assesses the business climate in the country by collecting information on the importance of various factors that have caused it and provides information on businesses forecasts of the situation for the next quarter. The third part contains estimates on actual and forecasted businesses activity, physical capital stocks, prices, employment, competition and financial situation of the firm.

The Consumer Confidence Survey

The consumer confidence survey is used to detect future changes in economic cycles; a fall (rise) in consumer confidence could be interpreted as leading to a decrease (increase) in consumption in the future. The questionnaire aims are in identifying how the consumer adapts decisions on consumption and saving based on future expectations. The questionnaire consists of two parts: the first part refers to the actual economic situation as compared to the previous quarter and the second part refers to expectations for the next quarter.

The survey is designed to be used for several economic indicators such as disposable income, GDP, consumer prices, unemployment, private consumption, savings and durable consumption. Each of the questions is assigned 5 possible ranking alternatives which are given different weights, one of which showing no change. Three indicators of consumer confidence are computed:

- The consumer confidence indicator, which takes into account the actual and expected financial situation of the consumer, the actual and expected economic situation of the country, the expectations of the level of unemployment, savings and durable consumption.
- 2. The actual economic situation indicator, which takes into account the actual financial situation of the consumer, the overall economic situation of the country and the potential for large purchases (durables).
- The expected economic situation indicator, which takes into account the expected financial situation of the consumer, the expected overall economic situation of the country, unemployment and savings.

The sample size includes 1206 consumers, and is defined taking into account the total population size and other countries experience. The survey includes families living in urban zones whose population represents 86.4 per cent of the urban population of the country and 36.4 per cent of the total population of the country. The families are randomly selected and the direct interviewing method is used. The same households are traced in time, unless they are not at home or moved. In that case neighbours are questioned in their place.

3.2 THE INDEPENDENCE OF STATISTICAL AGENCIES

While most of the theoretical literature on IT has already dealt with and defined the central bank independence, it is less common what independence means for a statistical office. On the other hand the statistical standards literature promoted by most international organizations such the IMF or the ECB has already defined the criteria to look at when assessing an agency's independence. For statistical offices, independence covers, among other factors, a legal mandate to collect data, independence in choice of sources, protection of staff from outside interference and independence in the dissemination of its work (San Jose *et al.*, 2002). This definition is at the core of the existing frameworks assessing the data dissemination by statistical agencies, covering among other characteristics the independence of statistical agencies. A ROSC mission visiting Albania during March 2006 provided the most recent assessment of INSTAT in this regard according the DQAF framework. In what follows, Section 3.2 is based on this document, more specifically in the assessment of the prerequisites of quality and the assurance of integrity.⁴

First, the responsibility for collecting, processing, and disseminating the statistics by INSTAT is clearly specified by law. The Law "On Official Statistics," No. 9180, dated February 5, 2004 sets out the legal framework for the collection, organization, production, and dissemination of official statistics in Albania and reflects elements of the UN Fundamental Principles of Official Statistics. INSTAT is authorized under Article 8 to issue to all statistical agencies, make public, and keep up-to-date the guidelines for professional standards in the production of official statistics. INSTAT is responsible for examining the procedures for producing statistics used by any official statistics-producing agency, with a view to ensuring their statistics are reliable, impartial, and objective. (ROSC assessment, 2006).

INSTAT is an independent government agency supervised by the Statistics Council, which in turn reports to the Council of Ministers. In executing its responsibilities, INSTAT develops the program of official statistics in coordination with other statistical agencies. The program consists of a five-year national program of official statistics and a one-year operational plan. The five-year program is submitted for approval by Parliament, through the Prime Minister. The Statistics Council supervises the implementation of the five-year program and the annual operational plan. INSTAT prepares quarterly reports detailing progress in implementing the annual plan. The Statistics Council approves INSTAT's organizational structure and annual budget plan prior to submission to the MoF. According to the Government Decision (No. 704 dated November 11, 2005) on "Approval of the Criteria of Representation, Selection, Appointment, Dismissal and Functioning Rules of Statistics Council", the Statistics Council has 11 members appointed by the Council of Ministers. The members comprise three from academic community, three from civil society, and five from statistical agencies including the BoA. The Council makes decisions by simple majority; the INSTAT General Director participates in meetings, but does not have a voting power.

Second, sources are chosen according to professional criteria only and an adequate legal framework is in place to ensure response by reporting subjects.

INSTAT is the only official producer of national accounts statistics, through its National Accounts Section (NAS). In carrying out its responsibilities, the INSTAT is empowered by the Law to collect data from all entities. However, currently some other laws might cause potential conflicts with this provision of the Law "On Official Statistics," because there is no clear hierarchy establishing that the Law "On Official Statistics" takes precedence over other laws. For example, the law governing the Tax Administration Department could prevent INSTAT from having access to the records of the National Center of Enterprises. Nevertheless, INSTAT manages to cooperate with the Tax Administration Department to obtain the necessary data.

Article 14 of the Law specifies the obligation of reporters (enterprises, institutions, and physical and legal persons) to supply data to INSTAT in a complete and truthful manner. The information shall be provided in the form and within the time-period requested, and free of charge. Furthermore, Article 16 states that INSTAT has the right to collect and use administrative statistics for the implementation of the official statistics program. Failing to provide information to INSTAT is considered an administrative offense subject to fines at various specific levels.

INSTAT plans to further strengthen data sharing and coordination among statistical agencies needs to improve effectiveness by putting in place memorandum of understanding (MoU) with other statistical gaencies. Article 8 of the Law assigns INSTAT the responsibility of proposing an official statistics program in coordination with other statistical institutions. In practice, INSTAT arranges and chairs (1) a guarterly advisory meeting, involving heads of statistics departments of all ministries and statistical agencies, to discuss matters of professional interest, and (2) an annual meeting with these agencies to discuss developments in the program of official statistics. INSTAT sets MoU with each statistical agency maintaining administrative records that are used in the production of statistics. The MoU stipulates working arrangements and mutual obligations, including the data to be provided by the agency to INSTAT and the timetable for submission. INSTAT is empowered to approve any statistical surveys, to avoid duplication and uphold professional statistical standards. Article 12 specifies the duties of other reporting agencies, stating that all institutions shall give INSTAT access to registers, data files, and data collected, processed, and stored in the domain of the agencies.

Third, statistics are produced on an impartial basis.

Article 4 of the Law protects the professional independence of INSTAT staff and prevents interference from government, other state authorities, political parties, or any other interest groups—notably in the selection of data sources, statistical methods, and procedures, in the contents, form, and time of dissemination, and in the application of statistical confidentiality.

The Law describes the roles and tasks of the Statistics Council members and of the INSTAT General Director. It specifies that the appointment and dismissal of the General Director be proposed by the Statistics Council and be subject to the approval of the Prime Minister and the Council of Ministers. INSTAT staff is subject to the rules and regulations in the Civil Servant Law (Nr. 8549, November 11, 1999). Hiring staff is through competitive recruitment based on qualifications. INSTAT promotes professionalism in its culture, providing opportunities for professional development, such as participation in courses, access to professional literature, and encouragement of research, which are presented in various international and regional conferences.

Fourth, choices of sources and statistical techniques as well as decisions about dissemination are informed solely by statistical considerations.

Article 4 of the Law requires that the selection of techniques, definitions, and methodologies be based only on statistical considerations. The choices of source data are based on measurement objectives and data requirements, taking into account cost effectiveness and respondents' burden. Decisions on dissemination of statistical content, format, and timing are based solely on statistical considerations. The Law (Article 17) specifies dissemination criteria, including simultaneous release to all users, appropriate media to provide broadest access, and meeting requests from any organization or individual for nonpublished data. INSTAT's practices follow the requirements of the Law. All the terms and conditions under which statistics are collected, processed, and disseminated are available to the public in the website of INSTAT.

Beyond independence the importance of communication between data providers and data users highlights the importance of investing in statistical capacity to produce the data on which policy is focused, (Carson et al., 2002). Often there are also important issues about the funding of statistical agencies. Especially in the context of an inflation-targeting regime, cutting may jeopardize the IT regime and its credibility and macroeconomically this could prove to be very costly. According the ROSC assessment almost in all statistical agencies assessed human resources and facilities including IT support, were not adequate to perform actual statistical programs and short term plans. INSTAT and the SD at the BoA have included the investment in information technology in their current or medium term strategic plans and are considering the revision of the staff structure to comply with current and planned macroeconomic statistics (ROSC report, Response by the Authorities).

3.3 COOPERATION WITH STANDARD-SETTING INTERNATIONAL INSTITUTIONS AND FOREIGN CENTRAL BANKS IN THE FIELD OF STATISTICS

The IMF interest in promoting the development of statistical systems to deal with the requirements of inflation targeting, has lead to an orientation to its major statistical projects towards it. San Jose et al., (2002) pp. 332 states:

Key statistical principles underlying an inflation targeting regime are (1) the development of a wide range of economic and financial indicators, (2) close cooperation among statistical agencies, (3) transparency in statistical methodologies and compilation procedures, as well as the transparency that results from dissemination of a wide range of data, and (4) methodological soundness in statistics. IMF statistical initiatives support these statistical principles.

On methodological issues the IMF has developed a wide range of manuals which are at the basis of statistical reporting in most economic systems⁵. Subscription to the SDDS is a useful tool to promote transparency in statistical processes and to increase economic agents' confidence in data and institutions providing them. The IMF is considering changes that could be made to the SDDS to make it more supportive for inflation targeting regimes. In these regard the focus is shifting towards more market based statistics such as interest rate statistics, financial soundness indicators and forward looking indicators; summaries of best compilation practices for the later are under development. In addition, on the methodological aspect the SDDS has strict requirements on the quality standards to observe.

The ROSC assessment enables countries to assess observance to internationally accepted standards for the most important statistical indicators compiled (monetary statistics, balance of payments statistics, price statistics, national accounts and government finance). A ROSC mission visited Albania during March 8–22, 2006. The ROSC data module provided an assessment of Albania's macroeconomic statistics against the recommendations of the GDDS complemented by an assessment of data quality based on the IMF's DQAF, July 2003. The DQAF lays out internationally accepted practices in statistics, ranging from good governance in data producing agencies to practices specific to datasets. The datasets covered were national accounts, consumer and producer price indices, and government finance, monetary, and balance of payments statistics and the respective responsible agencies were the INSTAT, MoF, and the BoA. In Table 1 is a summary of the ROSC assessment on various dimensions of data dissemination for each of the data sets.

The mission left clear recommendations where national practices depart from international standards, recommendations which are already at the core of plans for improvement in all statistical agencies. The publication of this report is in process.

Data Quality Assessment Framework Octob	ber 2006—Summ	arv Results				
Key to symbols: O = Practice Observed; L Largely Not Observed; NO = Practice Not	O = Practice Larg t Observed; NA =	jely Observed; LN : Not Applicable	10 =Practice			
Datasets	National	Consumer	Producer	Government	Monetary	Balance of
Dimensions/Elements	Accounts	Price Index	Price Index	Finance Statistics	Statistics	Payments Statistics
0. Prerequisites of quality						
0.1 Legal and institutional environment	ΓO	0	0	0	LO	ΓO
0.2 Resources	NO	LNO	NO	LNO	Ŋ	NO
0.3 Relevance	0	0	0	0	0	0
0.4 Other quality management	0	0	0	0	0	0
1. Assurances of integrity						
1.1 Professionalism	0	0	0	0	0	0
1.2 Transparency	0	0	0	0	0	0
1.3 Ethical standards	0	0	0	0	0	0
2. Methodological soundness						
2.1 Concepts and definitions	0	0	0	ΓO	0	0
2.2 Scope	INO	ΓO	0	0	0	0
2.3 Classification/sectorization	0	0	0	0	0	0
2.4 Basis for recording	01	ΓO	0	0	۲O	٢O
3. Accuracy and reliability						
3.1 Source data	INO	ΓO	ΓO	ΓO	0	INO
3.2 Assessment of source data	0	ΓO	LO	0	LO	0
3.3 Statistical techniques	NO	ΓO	Ŋ	0	ГO	D
3.4 Assessment and validation of intermediate data and statistical outputs	О	0	ſO	0	0	ΓΟ
3.5 Revision studies	Q	0	0	0	0	0
4. Serviceability						
4.1 Periodicity and timeliness	01	0	ΓO	0	0	0
4.2 Consistency	0	0	0	0	0	0
4.3 Revision policy and practice	01	0	0	ΓO	0	0
5. Accessibility						
5.1 Data accessibility	ГO	0	0	0	0	0
5.2 Metadata accessibility	0	ΓO	LO	0	0	0
5.3 Assistance to users	1O	0	0	0	0	0
Practice observed: current practices ge	enerally in obser	vance meet or	achieve the ob	jectives of DQAF i	nternationally c	accepted statistical
practices without any significant deficier	ncies. Practice la	rgely observed:	some departure	es, but these are nc	ot seen as suffici	ent to raise doubts
about the authorities' ability to observe	ethe DQAF pra	ctices. Practice	largely not obse	erved: significant c	lepartures and	the authorities will
need to take significant action to achiev	ve observance. F	Practice not obse	erved: most DG	AF practices are n	ot met. Not app	olicable: used only
exceptionally when statistical practices	do not apply to	a country's circ	umstances.			

Being a member of the GDDS project, Albania has made constant progress toward becoming a subscriber of the IMF Special Data Dissemination Standard (SDDS). In the context of the authorities' interest in getting access to international capital markets, additional efforts are required to upgrade current practices particularly in two statistical domains; quarterly national accounts (QNA) and quarterly external debt. The quality of these two indicators is closely related to improvements to the quality of the annual data from which they are derived; the annual national accounts and the annual international investment position (IIP).

End-2007 is the envisaged target date for Albania to subscribe to the SDDS. The action plan prepared by the SDDS assessment mission contains short-term recommendations (to be implemented by end-2006) and medium-term recommendations (to be implemented by end-2007). Statistical agencies will stay in close contact with the IMF Statistics Department during this period, especially for monitoring the progress made in developing QNA and external debt and assessing the quality of these data prior to their dissemination to the public.

The SDDS mission advised the BoA to take the role of the coordinator of the SDDS project. In this role the BoA official is responsible for maintaining the National Summary Data Page (NSPD), which is a table comprising all the statistics prescribed by the SDDS and disseminated on the website of the coordinating agency.

Box 1 contains the key short term (ST) and medium term (MT) recommendations left by the SDDS mission for all statistical agencies.

Box 1 SDDS mission's key recommendations

SDDS coordinating agency

• In priority, immediately designate an agency to act as the SDDS coordinating agency and designate the SDDS coordinator.

BoA

- Compile and disseminate the data template on international reserves and foreign currency liquidity (reserves template, ST)
- Regularly compile experimental quarterly external debt (ST); disseminate the data (MT).
- Regularly compile experimental annual IIP (ST); disseminate the data (MT).
- Improve the source data for the IIP and external debt (MT).
- Implement an electronic reporting system for banks and other financial institutions (MT).

Ministry of Finance

- Regularly provide detailed quarterly data to INSTAT for use in compiling the QNA (ST).
- Regularly provide payment schedules for government and government-guaranteed external debt for use in compiling the reserves template (ST).

Institute of Statistics

- Regularly compile experimental QNA (ST); disseminate the data (MT).
- Compile and disseminate a monthly industrial production index based on VAT returns (ST).
- Compile and disseminate indicators of employment and wages in the non-agricultural private sector based on data from the social security system (ST).
- Implement an annual labor force survey (MT).
- Improve the source data used for compiling the annual national accounts (MT).

The BoA's statistics have commenced to work towards achieving ECB standards in financial, interest rates and balance of payments statistics. To this end:

- a Twinning project with one of the central banks of the EU has begun. The project is still in draft form.
- Through the collaboration with the FSVC experts visits in the BoA have been organized, presenting seminars at the BoA (for BoA' staff) and examining the current departures from the ECB standards.

4. CONCLUSIONS

This paper presented a picture of the current statistical framework in Albania and some plans to address the remaining gaps. IT preconditions for statistics beside a wide list of economic series needed for modeling, forecasting and communication with the public cover an adequate legal and institutional framework supporting professional independence, and a greater transparency and public confidence in the data used by policymakers.

In the paper we presented the economic information currently available to BoA's staff discussing details of methodologies employed, sources, and availability. Statistical agencies commitment to quality for the statistics they are held responsible to disseminate follows not only from the law or current policy needs, but are part of more general frameworks for improvements in statistics, leaded by international organizations. The auditing of national practices by standard setting institutions and the public recognition of the national statistical system meeting those standards, in particular the participation of Albania in the SDDS, would increase public understanding of the economic information on which BoA bases its monetary policy and hence the credibility of the institution and its commitments.

In addition to data categories the BoA is responsible to disseminate, the developing of complementary data to fill existing gaps remains a priority in the BoA. Indicators such as the core (net) CPI, NEER, REER, housing prices, inflation expectations, output gap, which are useful for modeling and forecasting are part of the statistical research in various departments at the BoA and their methodologies will continue to be refined.

This paper also discussed the issue of professional independence of the major statistical gaency in Albania (INSTAT), on which statistical product (the CPI) the BoA will base its monetary policy and will be held accountable to the public. Ensuring no interference of the BoA and the government in selection of sources, methodologies and dissemination practices for statistical products is in the Boa direct interest as it is crucial in building public confidence in the BoA's monetary policy. Professional independence ensured by law and other regulatory basis is however not enough to ensure quality in statistics. Close cooperation among statistical agencies involved in collection and compilation should be directed to promote consistent application of methodologies and minimize duplication effort. Last but not least, adequacy of financial resources and human resources in statistical agencies is equally important and crucial in maintaining and achieving statistical standards.

ANNEX 1: DATA NEEDED FOR INFLATION REPORT AND MODELING AND THEIR AVAILABILITY

We present the list of indicators that are necessary to the forthcoming Inflation Report and the list of indicators that are actually available.

- Foreign main trading partners' data, such as economic growth, inflation rates, interest rates and exchange rates. These data will be obtained from the statistical agencies producing them in the respective countries. The timing of their issuance is announced on advance release calendars regularly published by the responsible institutions in the IMF's dsbb.imf.org web page. The data will be regularly updated in the BoA's internal database.
- Detailed consumer prices and respective weights are currently available from INSTAT and will be regularly updated in the BoA's internal database.
- Inflation expectations of selected economic sectors, available from the business sentiment, consumer confidence and deposit and lending activities indicators are still in process of methodological refinement.
- Monetary series, are currently available on the BoA webpage.
- Balance of payments data, are currently available on the BoA webpage.
- Nominal interest rates, are currently available on the BoA webpage.
- International investment position, recently started to be compiled experimental data for 2005 to be available by end of February 2007.
- External debt, will be compiled on the basis of the experimental IIP for 2004, and using available quarterly information on external assets and liabilities and cumulating flows from balance of payments for the other components of the IIP.
- Exchange rates are currently available on the BoA webpage.
- Public finances, are collected and the metadata are

designed. The data will be available on the BoA internal database by end 2006.

- Indicators of employment and wages in the non-agricultural private sector, will be estimated by INSTAT based on data from the social security system (in the short term) and an annual labor force survey will be implemented (medium term).
- *Producer prices,* are obtained from INSTAT and will be available on the BoA internal database by end 2006.

ANNEX 2: CURRENT TIMELINESS AND FREQUENCY OF MAIN STATISTICAL PRODUCTS

Calendar of publication of Monetary Statistics and Balance of Payments Statistics in the BoA, Janary 2006-March 2007				
Indicators	Frequency	Time lag from the reference period		
Monetary data				
Analytical accounts of the banking sector – Monetary survey	Monthly	30 days		
Net Foreign Assets of the banking system	Monthly	30 days		
Interest rates and flows of new loans and deposits	Monthly	30 days		
Net Foreign Assets of the Central Bank	Monthly	30 days		
Analytical accounts of the Central Bank - Monetary Base	Monthly	30 days		
External Sector				
Balance of payments	Quarterly	2 months		
Trade statistics	Monthly	30 days		
International reserves and Foreign Currency Liquidity	Monthly	2 weeks		
IIP	Annually	Experimental		
External Debt	Quarterly	Experimental		
National Accounts and other				
GDP	Annually	Preliminary data after 11 months, Final data after 18 months		
Sales index	Quarterly			
Quarterly National Accounts	Quarterly	Experimental		
Prices				
CPI	Monthly	9 days		
PPI	Monthly	The PPI for the months of each quarter is not published until about nine weeks after the end of the quarter. This means that the index for the first month of each quarter is not published until more than four months later.		
Surveys Data	Quartarly	Evporimontal		
Business confidence	Quarterly	Experimental		
Doginess connuence	Quulenty			

* Hilda Shijaku, Head of Financial Statistics Division at the Statistics Department, Bank of Albania. Kliti Ceca, Director of the Statistics Department and Evis Ruçi, Head of Balance of Payments Division, Statistics Department. The authors are grateful to Godiva Rembeci (INSTAT), Evelina Çeliku (BoA), Erjona Suljoti (BoA), Elona Bollano (BoA), Vasilika Kota (BoA) and all other BoA's staff for comments and suggestions on this paper.

¹ ROSC assessment.

² The IMF ROSC mission recommends acknowledging the lack of expenditure data by deriving household final consumption by residual. It should be made clear in all published tables that the residual includes changes in inventories and errors and omissions in the rest of the GDP compilation processes.

³ These benchmarking values are the annual value added for each of the 25 branches. These values are available from the estimation of annual GDP. From these values the information on levels of added values is extracted.

⁴ For more details, consult ROSC Report, pp 37-43, pp 68-72 and pp 83-87.

⁵ See San Jose at al., (2002) pp 318-320 for a comprehensive list of these manuals.

BOA (2005), Preconditions for Inflation Targeting in Albania, Open Forum Tirana Albania, 1-2 December 2005.

Dushku, E., Kota, V. and Binaj, G. (2006), A Macro Econometric Model Approach for Albania, *Discussion Paper* for the Round Table on Inflation Targeting 2, Bank of Albania.

Carson, C., Enoch, C. and Dziobek, C. (2002) Taking the Agenda Forward, in Statistical implications of inflation targeting; getting the right numbers and getting the numbers right, eds. Carson, C., Enoch, C., and Dziobek, C., International Monetary Fund, Statistics Department, 2002.

International Monetary Fund, Statistics Department (2006), Draft Report on the Observance of Standards and Codes (ROSC)—Data Module

Lane, P. and Milesi-Ferreti, G (2002), External Wealth, the Trade Balance and the Real Exchange Rate, *CEPR Discussion Paper*, n°3153, January 2002.

San Jose, A., Slack, G. and Sriram, S., (2002), Statistical principles for inflation targeting – regimes and the role of IMF data initiatives, in *Statistical implications of inflation targeting;* getting the right numbers and getting the numbers right, eds. Carson, C., Enoch, C., and Dziobek, C., International Monetary Fund, Statistics Department, 2002.

Shtylla, D. and Suljoti E. (2006), The Future of the Monetary Policy Report Within an Inflation Targeting Framework, Discussion Paper for the Round Table on Inflation Targeting 2, Bank of Albania

COMMENTS ON: THE IMPROVEMENTS IN THE STATISTICAL FRAMEWORK FOR INFLATION TARGETING IN ALBANIA*

Henning Ahnert**

INTRODUCTION

It is a great pleasure to be invited to participate in the discussion concerning the preparations for inflation targeting in Albania. My participation follows-up from the first round table organised on this issue by the Bank of Albania (BoA) to which Hans-Joachim Klöckers (Director Economic Developments) from the European Central Bank (ECB) participated. I am sure that you are aware of the fact that I am not an expert on the Albanian economic statistics, nor on the general economic developments and prospects in Albania. However, despite all the differences and different challenges the BoA and the ECB are facing, there are common features. In particular a good statistical basis is a precondition for monetary policy in all countries and all economic areas. Furthermore, you are probably aware that the European Central Bank has not adopted an Inflation Targeting (IT) concept; however, the available documentation for the conference suggests that the main statistics expected to be required by the BoA and developed by INSTAT or the BoA are not significantly different from statistics used by other central banks, regardless of the particular monetary policy approach chosen. Differences such as the size of the economy, the openness of the economy and the domestic financial and economic structures

appear to me more relevant for defining statistical requirements. Nevertheless, successful inflation targeting makes high demands on statistics. Not only good price and cost data are needed, but also monetary, financial and macroeconomic data more widely, since the central bank will need to understand the main influences on its chosen measure of inflation, and be able to measure them in a timely and accurate way so as to identify when to take action to stay on track.

Before introducing a number of more detailed comments on the very informative paper by Hilda Shijaku, Kliti Ceca and Evis Ruci, let me express my appreciation for the ongoing work and improvements to Albanian statistics. The paper – as well as information available from other sources such as the IMF - confirms that Albania has undertaken very significant efforts to improve its economic statistics. Albanian authorities seem to be fully committed to developing the national statistics towards IMF and EU standards. The BoA has also consulted the specific statistical standards of the ECB in the field of its responsibility. Improved statistics have been identified as one priority area by the BoA. The application of international statistical avidelines and recommendations undoubtedly sets very high objectives for the statistical system in the short and medium terms. New legislation has to be developed and approved and new or extended statistical surveys need to be prepared and conducted. Furthermore, contacts and consultations with - for example - statistical expert groups in the EU need to be set-up and maintained. For a small country such as Albania, this is not easy.

However, by the application of international statistical standards Albania may benefit from the methodological soundness of these standards, which are the outcome of a thorough international discussion process (some of these standards (e.g. the SNA93) are currently under review). Albania may also benefit from the experiences of other countries that have undergone a substantial transition process over the recent two decades – for example some of the small new EU Member States. Likewise, Albania may benefit from the experience of 'old'

EU members (the documentation mentions so-called 'twinningprojects'). Furthermore, implementing international standards from the outset also avoids that costly statistical changes have to be made at a later date. And finally, the implementation of international statistical standards may be easier when entirely new statistics are introduced for the first time – as this is the case for some Albanian statistics – while it may be more costly – for producers and users – to change established national statistics.

Overall, there is a strong case for Albania to follow good international statistical practice. It is the most efficient and effective strategy for a European country that implements numerous statistical improvements. It requires that sufficient resources are devoted to the main producers of statistics. I am sure that users of statistics – domestically and internationally – support and appreciate this commitment by the Albanian government, central bank and statisticians.

In the following more detailed remarks on specific statistical developments, I focus on two aspects: the work on the Albanian consumer price index, and the 'governance' principles for statistics. I will also comment on some of the other statistics described, but recommend reading the manuscript as well as published documentation by the IMF for more details.

CPIS, THE ALBANIAN CPI AND THE EU HARMONISED INDICES OF CONSUMER PRICES (HICP)

Since the main national purposes of CPIs may vary, the underlying concepts and methods likewise differ from country to country. National CPIs are therefore not sufficiently comparable for cross-country analyses. However, for macroeconomic analysis of inflation there is no trade-off between an index that is suitable for domestic use, and a measure that is suitable for international comparisons or aggregation. It is therefore highly desirable that international standards are taken into account in the further development of national consumer price indices. Comprehensive recommendations have been laid down in the international "Consumer Price Index Manual" and in the resolutions of the ILO.¹ Furthermore, for European countries, the compelling standards prepared by CPI experts and agreed by the European Union provide the benchmark for EU consumer price statistics.

For the euro area and the EU countries comparable measures of consumer price inflation are needed for two main reasons. First, the ECB defines price stability in the euro area as "a yearon-vear increase of the Harmonised Index of Consumer Prices (HICP) for the euro area of below, but close to 2%". Second, the change in consumer prices is one of the convergence criteria used to assess whether a Member State is ready to enter the euro area. These important applications of the HICP call for a harmonised conceptual framework and comparable results. Harmonised consumer price indices are available for all EU countries, most EFTA countries as well as for Bulgaria, Romania and Turkey. Eurostat, the Statistical Office of the European Communities, compiles HICPs for the euro area and the EU by aggregating country information. Almost all of the countries mentioned produce both a national CPI and an HICP, though the differences have continuously decreased and it is not always easy to communicate what the difference and different purpose of the two measures are.

Differences between CPIs across countries as well as differences between CPIs and HICPs are typically due to one or more of the following reasons:

The most important factor affecting international comparability of CPIs is the treatment of owner-occupied housing (OOH). Whereas OOH is excluded from many CPIs (for example in 14 out of the 25 current EU countries), others include rental payments imputed for owner-occupiers or, alternatively, mortgage-related costs. For the HICP, it has not yet been finally decided whether or not OOH shall be covered and for the time being, it is not included. In a pilot study, supported by the ECB, Eurostat is currently investigating the so-called 'net-acquisition approach', i.e. quantifying the expenditure in purchasing

a dwelling. My understanding is that the Albanian CPI includes OOH and the imputed rent approach for this. The total weight of housing (including rents, water and housing energy) is considerable in the index (24.4%). According to the data available on the website of INSTAT, index figures for rents and imputed rents are identical. I recommend to closely follow the current work of Eurostat and EU national statistical institutes (NSIs) on the pilot study for OOH.

- National CPIs may differ by their geographic coverage. CPIs following the resident concept by reflecting price changes for goods and services purchased by the consumers living in the respective country (and, ideally, including purchases by their residents in other countries). By contrast, the domestic concept covers the consumption expenditure in that country, regardless of whether residents or non-residents have purchased the goods and services. The domestic approach is better suited to aggregation across a group of countries, which is of course a concern of the ECB. Accordinaly, the HICP follows the domestic concept, so that the total expenditure covered by the euro area and EU HICP, respectively, is the aggregate of the countries' consumption expenditure. Furthermore, CPIs may differ in terms of household coverage (and, for example, exclude high-income households), while the HICP requires coverage of all household types. As the manuscript mentions, a major field for improvement in the Albanian CPI is the planned extension of coverage of non-urban households which account for about half of the population. This is therefore an important step forward. I could not find information on the geographic concept used, nor do I have information whether this issue is potentially important for the Albanian CPI.
- For health and education, the HICP covers weights and prices net of reimbursement by social security or government. For insurance premiums, the HICP bases weights on net premiums (premiums minus claims) and

takes premium rates as the price component. I could not find information on the treatment in the Albanian CPI. Second-hand sales within the household sector are excluded from the HICP coverage. My understanding is that the current Albanian CPI includes second hand purchases, and that in the future second hand purchases will be consolidated with second hand sales, which would be more consistent with HICP practices.

- NSIs review and recalculate the basket and the respective • expenditure shares of their national CPIs at different frequencies. Updating expenditure shares sufficiently frequently is needed to keep the index relevant. For the HICP, a compromise had to be found. The HICP has been designed as a chained Laspevres index, which allows, but does not require, an annual update of the expenditure shares (EU country practices vary between annual and five-yearly updates). Additionally, HICP weights and baskets have to be reviewed on an annual basis in order to identify 'critical' changes of weights and new products that have gained significant market shares. The planned update of the basket of the Albanian CPI (current base 2000) is definitely an important improvement. The manuscript mentions that no decision has been made on the regular conduct of the Household Budget Survey (e.g. every 3 years). However, a high quality source for CPI weights is indispensable for the accuracy of the results, and Household Budget Surveys are a major source in most countries
- Varying practices exist for CPIs for the statistical treatment of quality changes, of new products, of sales prices and discounts, of seasonal items – to mention only a few – and the HICP has led to an increasing comparability. According to the IMF documentation available, the NSI uses imputation methods for temporarily unavailable seasonal items. In the EU standards for seasonal items in the HICP are close to adoption, but the current practices differ across countries. However, according
to the manuscript, no adjustment for changes in quality is made, and new items are introduced only when the basket is revised at multi-annual intervals. Despite the specific structure of the basket – 70% of the expenditures are for food, beverages, alcohol and housing, i.e. items for which market and product changes are typically less prominent than for high-tech consumer goods and services - it seems obvious that the timely coverage of new items and sufficient quality adjustment are important fields for future enhancements of the CPI.

Finally, for international comparisons the use of a common product classification is necessary. Very positive is therefore the use of COICOP classification for the Albanian CPI, which is largely consistent with the COICOP variant used for the European HICP. Very positive is also the good timeliness of the current Albanian CPI (release 8 days after month-end), which compares very well with the current Eurostat release for EU HICPs (about 15 days).

All of this is relevant to economic analysis and inflation targeting because it is important that measured prices do indeed reflect current developments as experienced by the public, and that reliable, comprehensive and timely data are available to policy-makers in the BoA.

Let me also refer to some special statistical issues relevant for using CPI data for central bank use. First, I read in the conference papers a reference to the concept of 'arranged' prices, which account for about 16% of the Albanian CPI. My understanding is that this term corresponds to a concept currently developed by the ECB of 'administered' prices, and it is only a coincidence that the weight of 'arranged' prices in the Albanian CPI of 16% is almost identical to the weight for administered prices estimated for the euro area HICP. Second, I read about the concept of 'net' CPI measures. You might wish to be aware that almost all EU countries are currently implementing a concept of the 'HICP at constant tax rates', which aims to eliminate the impact of changes in indirect taxes on HICPs. Furthermore, there is mention of the need for economically meaningful CPI subgroups. This has also been a concern of the ECB because the COICOP, due to its classification of consumer goods and services by *purpose*, does not always provide meaningful aggregates for economic analysis (e.g. prices for energy are spread over the housing and transportation COICOP groups). For this reason, the ECB, all national central banks and Eurostat have developed a common set of (more) homogenous aggregates for analysis.² Finally, the ECB compiles seasonally adjusted HICPs, which are a useful tool for the analysis of monthly HICP changes due to the significant seasonal pattern in HICP sub-components and several national HICPs (e.g. for Greece, Italy, Malta and Cyprus). I am happy to provide more information on all four points raised if so wished.

OTHER NON-FINANCIAL AND FINANCIAL ECONOMIC STATISTICS

I will cover the other economic statistics mentioned in the manuscript in less detail. However, for all of them I am equally convinced that for the further development of these statistics it is recommendable to closely take into account the existing EU statistical standards. And, to repeat my earlier point, they are relevant in the inflation targeting regime because the economic developments which they measure may plausibly be considered to influence the BoA's target.

INSTAT produces an industrial producer price index which is published according to the NACE classification and follows the SNA and new PPI manuals. As in the case of the CPI, a key field for planned improvements is to improve the enterprise sampling (currently there seems to have been no update of the sample since the base year 1998). The proposed improvements to data collection periods and timeliness are welcome. If I had to choose between a better timeliness and frequency and better sampling, weighting and quality adjustment, the latter has in my view priority. I had no access to more detailed information on the statistical methods used, but if there are further developments of the Albanian PPI envisaged I would recommend taking into account the existing EU Short-term statistics regulation, and the detailed regulation and recommendations for the compilation of PPI data. This requires PPI data for industry at monthly frequency after 45 days, but provides for several simplifications for small Member States.³ By end of this decade, PPIs for the service sectors will be added by all EU countries, and experience tells us that the development of new PPIs for services may require quite a lead time.

Both the CPI and the PPI are also important inputs in the compilation of national accounts volume measures. Sources for current prices national accounts are structural business statistics, household budget and labour force surveys. Potential deficiencies in these source statistics therefore inevitably affect the quality of national accounts statistics. The recent progress report of the European Commission on Albania acknowledges the first release of national accounts data in December 2005 using the ESA 95 as its methodological basis, but that "further progress needs to be made in greas such as the exhaustiveness of GDP, GDP by type of final expenditure and quarterly estimates of GDP".⁴ The manuscript highlights some planned and welcome improvements. Good statistical sources are needed for the annual national accounts in order to derive reliable level estimates of value added, income, consumption and saving. Good price statistics are needed for good volume measures. And improved infra-annual statistics at monthly and guarterly frequency are needed to develop estimates of quarterly GDP, and to improve further the timeliness of annual GDP estimates. Overall, despite the recent progress for the Albanian national accounts, there appears to be still a huge work programme in this field. It is not possible for me to judge whether or not these statistical improvements will yield revisions to current GDP estimates. However, the potential importance of improved source was illustrated by the recently announced revision of the national accounts data for Greece - indicating an upward revision of about 25% for current prices GDP levels (and even higher revisions for the value added of several branches, such as wholesale trade, hotels, restaurants and construction.)⁵ I am not suggesting that the GDP statistics for Albania are subject to a similar measurement error, but this case underlines the

relevance of good quality statistics for economic analysis. Furthermore, it underlines that the adherence to agreed statistical definitions alone is not sufficient if it is not accompanied by the development of a statistical information system and source statistics that delivers the required information.

Moving to data produced by the Bank of Albania it is quite encouraging that existing Balance of Payments data will be further improved by in particular better estimation methods for remittances which is a crucial point for the Albanian BoP (remittances accounted in 2005 for 11.6% of GDP). This topic is high on the agenda not only in Albania, but also in many other countries as confirmed by the recent establishment of the Luxembourg Group on statistics on remittances. These data, needed to analyse the effects of migration on the BoP, labour markets and income are lacking for many countries. Albanian statisticians may be able to contribute their in experience in this field to the international discussion. Work is also going on to develop estimates of the International Investment Position. My understanding is that all data complies with the BPM5. It should also be noted that the monthly frequency of the BoP statistics is an asset and compares very well with European practice.

Furthermore, I understand that in terms of overall statistical quality, the monthly monetary statistics calculated by the BoA broadly meet the user requirements. Further improvements to the timeliness are underway, as well as new statistics on loans. I know that the BoA is fully aware of the ECB's statistical requirements in terms of the banks' balance sheet statistics (or how we call them "Monetary Financial Institutions" balance sheet statistics). The ECB's requirements follow international statistical standards, but sometimes also deviate from them or set standards for harmonised statistics, where none exist. All euro area Member States are legally obliged to follow the ECB regulations. The EU Member States not participating in Monetary Union are strongly recommended to (and indeed do) start early with the implementation of these requirements as the lead times for statistics are long and the costs for changing existing statistical systems are high. EU accession countries started participating in trainings offered by the ECB. It might therefore be useful for the BoA to keep the published and planned ECB regulations firmly in mind when planning longer-term changes to the Albanian statistics. From experience, it is useful, and may also minimise burden on reporting agents, to give early and stable guidance on reporting requirements. Hence, systems developed by financial institutions abide more easily and at a lower cost. For example when embarking to collect more detailed statistics on loans it might be interesting for the BoA to draw on the experience gained by my ECB colleagues in developing enhanced loan statistics for the euro area.

Analogously for financial statistics, e.g. the development of interest rate statistics it could be beneficial to start from the ECB's framework for bank interest rates on deposits and loans to ensure the comparability of the Albanian data. Regarding other financial corporations, the ECB is currently developing euro area statistics on investment funds. The possibility to collect data from insurance corporations and pension funds is also being investigated.

The BoA has carried out major groundwork for developing housing prices statistics for Albania. It is to be welcomed that this field is considered a priority for official statistics. The manuscript mentions that besides the simple averages method, the hedonic price method is used, in both cases using data from newspaper announcements. While the hedonic method is the superior method, the data requirements are, however, very high. Several EU Member States are currently developing residential property prices under the leadership of Eurostat. The ECB compiles a house price index for the euro area from national sources. From experience I can mention that the choice of the data source and the compilation method may have a very significant impact on the result.

I was also positively surprised by the involvement of the BoA in qualitative business and consumer opinion surveys. From the experience with euro area statistics I can assure you that this is a potentially very rich data source that is able to fill data gaps in official statistics. Whereas these statistics cannot replace good quality quantitative statistics such as CPIs or national accounts, they may – in the short and medium terms – fill temporary gaps in the official statistics and – in the long term – provide very timely indicators of economic trends and assessments. Within the EU, the European Commission (ECFIN) has developed a harmonised set of questions for this. The questions mentioned in the manuscript appear to be closely aligned with the EU survey.

Finally, as regards the statistical work in the Bank, I very much welcome the efforts to improve the technical infrastructure for producing and disseminating national statistics. This includes the reporting of data to the Bank using electronic formats, the electronic data processing in the Bank (e.g. for data quality checks), the electronic dissemination to internal users and the new internal statistical database for BoA users. This is a precondition for producing timely and high quality statistics, and supports the efficient and consistent communication with the public. Furthermore, in order to meet international statistical reporting requirements the use of agreed electronic reporting tools and formats is useful.

INDEPENDENCE AND GOVERNANCE ASPECTS FOR STATISTICS

According to the manuscript, the legal and institutional basis for producing statistics for Albania has developed well and is in line with the IMF's DQAF, as confirmed by the ROSC report released in October 2006. The legal basis has strengthened the role of INSTAT, but also – according to the ROSC report – sets out the responsibility of the BoA for compiling monetary and BoP statistics. Furthermore, while Albania is currently meeting the GDDS of the IMF, it is planned to subscribe to the SDDS standards by end-2007. This is an ambitious target, and I can only welcome this effort.

A concern expressed in the ROSC report is, however, that still too few resources are allocated to the production of statistics (for example only one professional each working on CPI and PPI production). It goes without saying that the international statistical requirements – whether set by the IMF or the EU – will create higher demands on Albanian statistics and these can only be met if sufficient resources are available. Furthermore, besides the resources that are needed for the actual production of statistics (in INSTAT, the BoA and other governmental bodies producing statistics), the intensified interest of BoA in real economy statistics (and the need to manage relations with INSTAT) creates, in my view, a need for some expertise in real economy and public finance statistics within the BoA. This is desirable in order to be able to independently evaluate the statistics, to advise users and to communicate on statistical requirements with the producers of statistics.⁶

As regards the aspect of statistical governance, it may be useful to be aware that the European Commission adopted the European Statistics Code of Practice for national and community statistical authorities only in May 2005. The Code is inspired by the DQAF, but in some respects more demanding. The addressees are (1) the government and its statistical agencies in order to ensure that statistics are professionally organised and resourced; (2) users in order to underpin the credibility of statistics; (3) respondents in order to show that statistical confidentiality is ensured and response burden is controlled.

The Code of Practice contains 15 principles which may be summarised as follows:

- Institutional environment (professional independence, mandate for data collection, adequacy of resources, quality commitment, statistical confidentiality, impartiality and objectivity);
- Statistical process (sound methodology, appropriate statistical procedures, non-excessive burden on respondents, cost effectiveness);
- Statistical outputs (relevance, accuracy and reliability, timeliness and punctuality, coherence and comparability, accessibility and clarity).

Each of the 15 principles is underpinned by a set of indicators to provide a reference for periodical reviews of the implementation of the Code. Self assessments by NSIs, peer reviews, and additional protocols for details of implementation are instruments for the implementation of the Code of Practice in all EU countries. As in the case for the statistical standards, I suggest also for these standards to closely align the longer term developments of the Albanian statistical system with those in the European Union. * Comments on the paper "The Improvements in the Statistical Framework for Inflation Targeting", Hilda Shijaku, Kliti Ceca, Evis Ruçi, November 2006, prepared for the Round Table Inflation Targeting II, Bank of Albania, on 7 and 8 December 2006. I would like to thank Peter Bull for valuable information and comments on the paper. The views expressed in this paper are those of the author and do not necessarily reflect the views of the European Central Bank.

** Henning Ahnert, Head of Section General Economic Statistics, European Central Bank.

¹ ILO, IMF et al.: "Consumer price index manual: Theory and practice", Geneva 2004, and "Resolution concerning consumer price statistics" adopted by thee 17th International Conference of Labour Statisticians, Geneva 2003.

² These are goods (unprocessed, processed, nonenergy industrial, energy) and services (housing, transport, communication, recreation and personal, miscellaneous).

³ See amendment regulation concerning short-term statistics No 1158/2005 of the European Parliament and Council.

⁴ See "Albania 2006 Progress Report", Commission Staff Working Document (COM (2006) 649 final), 8 November 2006.

⁵ See "Revision of the National Accounts System with base year 2000", website of the Greek NSI.

⁶ The ECB has published its statistical requirements for nonfinancial statistics in "Review of the requirements in the field of general economic statistics", December 2004.

COMMENTS ON: THE IMPROVEMENTS IN THE STATISTICAL FRAMEWORK FOR INFLATION TARGETING IN ALBANIA

Bill Allen*

Developing the necessary statistical infrastructure is perhaps the most difficult part of the task that Albania is facing in getting itself ready for inflation targeting. The paper that we are discussing makes it clear that the Bank of Albania is approaching the project in a thorough and coherent way, and I am impressed with the progress that has been made in the past year. I am sure it is wise for Albania to build on the statistical infrastructure that it already has, rather than trying to build a new one from scratch. I am also sure that it is wise to use the technical assistance of the IMF as far as possible.

Economic statisticians everywhere have a very difficult job. They are required to find numbers that correspond to the concepts that more theoretical economists dream up. Nearly always, the available numerical information does not fit the theoretical concept precisely, or sometimes even approximately, and the economic statistician has to make some compromises. The art of the economic statistician lies in judging which compromises it is best to make. That requires understanding both of the nature and reliability of the available information, and of the concept which it is supposed to represent. It is impossible for an outsider to second-guess the decisions that have been made by experts familiar with the data sources, and I will not try to do so. The paper for the most part reports strategic decisions that have been made about the nature of the statistics that Albania will produce in the future. As I have already said, I would not wish to question any of them. My comments are therefore confined to some rather obvious observations about the economic environment in Albania, and what they imply for economic statistics.

1. THE INFORMAL ECONOMY

The paper notes early on that the measurement of the informal economy and the potential biases that its existence creates need special consideration. Albania is not the only country with a large underground economy, though the scale of the problem may be unusually large in Albania. As the paper rightly notes, the existence of a large underground economy makes it impossible to produce accurate national accounts. Earlier this year, Greece revised the estimate of its gross domestic product upwards by no less than 25% on account of new estimates of the output of its service industries, including the underground economy. More generally, indicators of quantities of income and output will be of doubtful value, which means that macro-economic policy decisions will have to depend more heavily than in most countries on price indicators, which are unlikely to be seriously distorted by the underground economy. This suggests to me that price statistics should be given priority in resource allocation in the immediate future. It would be interesting to know more about what statistics are available related to the labour market. and how accurate they are likely to be.

Measures of monetary aggregates and other financial statistics may be an exception to the general principle that quantity indicators will be unreliable because of the underground economy. Whatever you believe about the reliability or unreliability of the relationship between monetary and credit aggregates and the behaviour of the economy, at least money and credit can be measured accurately. That gives them a special significance in an environment where other quantity indicators are doubtful, even though the demand for money is not stable.

2. THE CONSUMER PRICE INDEX

The CPI is a very important statistic in every country, and the decisions reported in the paper on how it is to be compiled seem entirely reasonable.

The weights in the current CPI are based on a household budget survey dating from 2000. That presumably means that the weight attached to gasoline and other energy products is much too small by present day standards, since the recent big increases in energy prices did not begin until 2004. The only completely satisfactory solution to the problem of weights becoming outdated in this kind of way is to rebase the CPI, and that is going to be done next year. In the meantime, it is important for the users of the statistics to be aware of the bias that using out-of-date weights induces. For example, if the CPI underweights energy, then it will have been understating inflation in the past two years. It would be possible to make a rough calculation of the approximate size of the bias.

3. PUBLIC USE OF STATISTICS

The paper comments that the Bank of Albania plans to monitor constantly the media's use of its statistics to comment on erroneous interpretation and misuse of statistics. I think it is highly desirable for the Bank of Albania to participate in public discussion about economic issues, and, if it thinks that statistics are being misinterpreted, to say so.

However, I think it is also important to distinguish between misinterpretation of statistics and disagreements about monetary policy. Equally, it is important for the central bank to take public comments about monetary policy seriously. There is a regrettable tendency in some countries for communication between the central bank and the public about monetary policy to be in one direction only. Economic commentators in the private sector may have something positive to contribute to public debate, even when they disagree with the central bank. Moreover, an active and continuing public debate about monetary policy, and economic policy in general, is likely to help to reinforce the public reputation and independence of both the Bank of Albania and INSTAT.

4. USE OF SURVEYS

I am sure that it is wise for the Bank of Albania to make use of business surveys as a guide to the current state of the economy, especially if there are doubts about the accuracy of some direct measures of output and incomes. It would be particularly useful to have the results of surveys of employment and wages, since there seems to be little other information available on the labour market. I also think it is a good idea to conduct surveys of consumer confidence, though I have to say that experience in the USA and the UK indicates that the relationship between consumer confidence and actual consumer spending is quite weak.

I would like to suggest that there might also be some value in surveys of commercial banks. The surveys might include:

- Information about their attitude to lending, ie how keen they are to lend money to particular sectors of the economy. For a given level of interest rates, credit may be more or less readily available, depending on the attitude of the commercial banks.
- Information based on their business experience about how the economy is currently performing.

Such surveys are conducted in other countries and provide useful supplementary information about the state of the economy.

5. CONCLUDING COMMENT

To conclude, I would like to make one general comment. It is that, by comparison with other countries that have inflation targets, Albania has a very narrow range of accurate economic statistics available to it. For example, for the reasons that I have already mentioned, statistics of output and income are unlikely to be very accurate. To say this implies no criticism whatever of INSTAT or any of the other statistical authorities in this country. It is just a fact of life, and not only in Albania; and it imposes a real constraint on monetary policy. Therefore, in making decisions about monetary policy in the future, the Bank of Albania will be bound to rely heavily on the things that can be measured accurately. The most important of these are prices (including house prices), the exchange rate and measures of money supply, supplemented by whatever other information can be collected from surveys.

^{*} Bill Allen, Senior Economist, Brevan Howard Asset Management LLP and Former Director of the Bank of England.

THE FUTURE OF THE MONETARY POLICY REPORT WITHIN AN INFLATION TARGETING FRAMEWORK

Diana Shtylla Erjona Suljoti*

ABSTRACT¹

The purpose of this paper is to outline a framework for the Bank of Albania Inflation Report as a crucial ingredient of the communication strategy preceding and following the adoption of the Inflation Targeting regime. The Inflation Report is conceived as a periodical document that will inform the audience on past inflation developments, present inflation forecasts, communicate and explain monetary policy decisions and account for past decisions. The proposed framework consists of a time-path, an analytical structure and an organizational infrastructure for the Inflation Report. In the paper we propose a gradual transition from the current Monetary Policy Report to a full-fledged Inflation Report in the near future.

LIST OF ABBREVIATIONS

BCS – Business Confidence Survey

BoA – Bank of Albania

CIMP – Committee for the Implementation of Monetary Policy

CSS – Consumer Sentiment Survey DMB – Decision Making Board IMF – International Monetary Fund IR – Inflation Report IT – Inflation Targeting LDS – Loan - Deposit Survey MPD – Monetary Policy Document MPR – Monetary Policy Report RBS – Regional Business Survey SC – Supervisory Council TAM – Technical Assistance Mission

I. INTRODUCTION

The past decade has seen a number of countries adopting inflation targeting (IT) as their monetary policy regime. In this strategy, the monetary policy decisions are guided by the gap between the inflation forecast and the inflation target. When the inflation forecast for a certain number of periods ahead is outside the target range, the monetary policy decision-making body at the central bank responds by a policy decision aimed at closing the gap between the forecast and the target. For a central bank to be efficient and effective in the implementation of this strategy certain criteria must be met as observed by Fracasso et al. (2005). In the first place, the target must be legitimate. Democratic principles indicate that the preferences of policymakers need to be aligned with those of the society at large (Mishkin, 2004). Secondly, central bank forecasts and policy actions must be credible and convey the commitment of the central bank to this strategy. Thirdly, to ensure understandability and support from the public the communication of the target, forecasts, and policy decisions must be precise and clear.

Inflation targeting central banks have developed wellfunctioning communication strategies relying on various communication tools such as press releases, press conferences, a variety of written documents and, recently, websites. The inflation reports (IR), although not always known by this name, have become the central element of communication of inflation targeting central banks. An inflation report can be produced in the absence of an official inflation targeting strategy, but the opposite is almost never the case. The inflation reports bear the burden of providing the central bank with the legitimacy that it needs, and they establish the bank's expertise in the area of inflation and monetary policy (*Fracasso et al.* 2005).

While the Bank of Albania (BoA) prepares the aroundwork for the adoption of the inflation targeting strategy in the near future, the communication strategy before and after the launch of the IT strategy will adapt to the needs of this new monetary policy framework. Under the current monetary policy regime -monetary targeting- BoA prepares a number of written documents that report on economic and policy developments. The Monetary Policy Document (MPD) released at the beginning of each year lays out the medium-term strategy of the BoA and the operational framework. The Monetary Policy Report (MPR) prepared each month presents inflation and other macroeconomic and financial developments, as well as the monetary policy stance for the immediate future. The goal of this paper is to discuss the purpose, the content and the production of the Inflation Report (IR) in the context of the IT framework. The paper builds upon the argument that the existing MPR is a good foundation for the future IR. The transformation of the current MPR into a fully-fledged IR is envisaged to take place within the next two years and this process will be gradual. However, since the IR is the primary means for the central bank to provide retrospective and prospective accountability for its performance with respect to the inflation target (Fracasso et al. 2005), the MPR must be subjected to significant changes in order to meet the requirements for a proper IR.

The paper is structured as follows. In Section II we define and re-define some characteristics of the envisaged IR vis-à-vis the MPR looking at the target audience, the purpose and the contents of the document. In Section III we take a historical look at the transformation of MPR from its conception until present. Section IV is the proposed structure and contents of the IR. Section V lays out the path towards IR in the near future. Section VI concludes.

II. WHAT THE INFLATION REPORT IS ABOUT

II.1. INFLATION REPORT AND CENTRAL BANK TRANSPARENCY

Inflation-targeting central banks put a great emphasis on transparency as a key factor to having a successful monetary policy. In their attempts to increase transparency, central banks have increased the number of their periodic publications and public speeches of their officials, while making at the same time considerable efforts to improve the quality of information, forecasts and decision-making conveyed to the public. The move towards greater transparency through central bank publications in general, and inflation reports in particular, is based on the belief that enhanced transparency is beneficial. Mishkin (2004) argues that 'transparency of an inflation-targeting regime ... makes it more palatable to have an independent central bank which focuses on long-run objectives, but which is consistent with a democratic society because it is accountable'. Geraats (2001) claims that increased transparency not only helps in reducing the inflation bias, but it also gives the central bank greater flexibility to respond to shocks in the economy. Among several aspects of transparency (Figure 1), the author focuses on the benefits of publishing inflation forecasts as the central guiding element of the central bank's decision-making process.



Inflation-targeting central banks differ in what and how they choose to communicate with the public, but they are increasingly becoming aware of the benefits of publishing their objectives, forecasts, policy decisions and policy outcomes. IRs are at the core of the communication strategy of inflation-targeting central banks, and as such they combine crucial aspects of the monetary policy decision-making process. An inflation report is generally intended to fulfill three basic roles. It aims to:

- Inform the public about past inflation, economic and financial developments;
- Announce and explain the central bank's monetary policy decisions;
- Account for past decisions of the central bank by comparing inflation outcomes to the inflation target.

In sum, a standard inflation report displays features of political, economic, procedural, policy and operational transparency as it commonly includes definitions of the target, inflation forecasts, voting results or minutes, policy decisions, operational details and analyses of policy outcomes.

Publishing developments, forecasts and policy decisions in an IR is not enough to achieve a satisfactory level of transparency. The reports should be user-friendly, candid, relevant and concise. The main text of the inflation report should be written in a non-technical style aimed at a broad audience. Given the importance of the inflation report for central bank accountability to the public at large, it needs to be understandable to a broad range of readers with only limited familiarity with macroeconomic theory or terminology (Heenan et al. 2005).

The Inflation Report that will be produced by the BoA within the IT framework will incorporate most of the above elements, focusing on improving the quality of analysis and forecasts. In some aspects the Inflation Report will be an extension of the existing Monetary Policy Report, but it will also include a number of features that are currently not produced or not released to the general public. The main additions to the report will be the discussion of risks and uncertainties in the economic and inflation outlook, the numerical inflation forecasts and the discussion of present and past monetary policy decisions.

Table 1 Main differences	between	the	existing	published	MPR
and the envisaged IR					

Elements of the report	Monetary Policy Report	Inflation Report
Reviews of inflation, economic activity and financial developments	Yes	Yes
Announcement of the inflation target	Yes	Yes
Discussion of risks/uncertainties and main assumptions used in forecasting	No (confidential)	Yes
Inflation forecasts (numerical)	No (confidential)	Yes
Inflation expectations (surveys)	No (included occasionally in the confidential part)	Yes
Proposal for the monetary policy stance	No (confidential)	Yes
Monetary policy decision	Yes (press release)	Yes
Accounting for past decisions	No	Yes

The responsibility for the IR within the BoA

It is difficult to divide the responsibility for or ownership of the IR between the staff of an inflation-targeting central bank and its decision-making body. On one side, the IR is meant to convey the policy-makers' views, their analysis and interpretation of the facts, and their doubts and assumptions. On the other side, the IR is the bank's way of sharing with the public all the ingredients-prepared by the staff- that go into the policy making pot (*Fracasso et al.* 2005). As there is no best solution, a combination of ownerships is probably the most appropriate arrangement. The BoA's IR will be prepared by both the BoA staff and the BoA's decision-making body, the first bearing the responsibility for drafting the analyses, forecasts and other research work, and the latter being the author of the policy section of the report.

The audience of the IR

The IR in Albania will be intended to communicate BoA's policy decisions to politicians, financial analysts, members of the media, financial institutions, private and state enterprises, and to the public as a whole. The language of the report must be tailored to the needs and level of expertise of all users at the same time. Being the most important document, which will explain future outlook and policy decisions at the BoA, the inflation report will aim to be written clearly, simply and transparently (*Nervaj et al.* 2006). The forecasts presented in the IR will be backed by technical papers presenting and explaining the forecasting models for inflation and for other macroeconomic variables.

III. THE EVOLUTION OF THE MONETARY POLICY REPORT

Historical overview (1998-2005)

The first publication of the BoA that can be associated with the current MPR was released in the middle of 1998 and was known as the Quarterly Assessment of the Economy. This report was moderately long and discussed economic and monetary developments with only brief summaries of inflation developments and of the targets for inflation, which at the time was considerably high. From 1998 until mid 2001 the analyses of inflation developments and factors at work have been expanded. The report was also used to communicate BoA's views on expected developments versus the end-of-year inflation target. In June 2001 the first monthly report was produced under the name Analysis of Monetary Developments. The first few monthly reports were descriptive in nature and contained detailed analyses of monetary, money market and interbank market developments. The monetary program and quantitative monetary targets of the BoA were assessed in great detail in line with the requirements of the monetary targeting regime. In gradual steps, the report was augmented to include a short outlook for the monetary policy stance in the near future. The inclusion of inflation forecasts generated from a simple model² created at the end of 2001 until the beginning of 2002, was a huge step forward towards the production of a more formal although fairly simplistic inflation report. The inflation forecasts and the proposal for the monetary policy stance were included in the confidential part of the report and served as a basis for the decision-making process at the SC meetings. Forecasts were made

on a monthly basis, and the forecast horizon was conditioned by the end-of-year inflation target that was set at 2-4 per cent from year 2000 onwards. During 2001-2002 the inflation forecast horizon was very short (1-3 months) and the analysis of inflation developments and factors at work was limited.

A serious attempt to transform the monthly MPR into an essential document for monetary policy decision-making was made following the IMF TAM of June 2002³. Most of the recommendations of the TAM Report were gradually implemented resulting in a marked improvement of the structure and quality of the MPR. All the BoA monetary policy reports including the monthly, the guarterly, the semi-annual and the annual report were rearranged and their number was reduced to avoid overlaps and to free up capacities for economic research, as suggested in the TAM Report. In the course of the years, the descriptive part of the report became longer and more analytical. In 2003 a simple ARIMA model was added to the set of the forecasting models and for the first time, simple scenarios on expected exchange rate developments were used to create a forecast interval. The move towards a one-year forecast horizon was aradual. This horizon was established at the beginning of 2004.

In 2005 the BoA staff put on considerable efforts in creating a portfolio of econometric models to forecast inflation on monthly and quarterly basis. Three separate models were constructed for each frequency, the main goal being the estimation and forecast of headline inflation, inflation of CPI subgroups and core inflation. Inflation forecasts obtained from these models were gradually incorporated in the confidential part of the monthly MPR. As stipulated in the "Preconditions for Inflation Targeting in Albania" at the BoA Open Forum of December 2005⁴, these models would be used to run shadow inflation forecasts. A testing period of one year was decided upon⁵.

Progress during 2006

The beginning of 2006 marked a significant change with respect to the numerical inflation objective as proclaimed by the BoA through its annual Monetary Policy Document. This change was also warranted by the proceedings of the Open Forum (December 2005). The MPD effective from January 2006 stated that the BoA objective is to maintain annual CPI inflation published by INSTAT at 3 % +/-1 percentage points. Since 2000 this was the first time the numerical inflation target was revised. The shift from the previous 2-4 % band to the point target of 3% is justified on the grounds that a point target can be more effective in anchoring inflationary expectations. Although in the case of Albania the 2 percentage points width of the band is not very large, the difference between the price level implied by having inflation at the top of the band compared with the level implied by the bottom of the band could be significant within a two to three year horizon. (Heenan et al, 2005)

In addition to the conceptual changes that were implemented and discussed in the course of 2006, the periodical monetary policy reports in general and the monthly Monetary Policy Report in particular, underwent a number of qualitative and quantitative changes. While the length of the MPR is left unchanged, some parts of the MPR have been restructured in order to serve the purpose of informing the public and the Supervisory Council (SC) on economic and financial developments and inflation forecasts better⁶.

The analysis of inflation developments (although not in every report) was enriched with findings and expectations obtained from the Business Confidence Survey (BCS) and the Consumer Confidence Survey (CCS). Although the work for constructing aggregate indicators for current and expected developments is not finalized yet, information on trends and turning points has been used to assess current and past economic developments and to bring in more information in the forward-looking section of the report. The BoA staff intends to incorporate survey data formally in the forecasting process in the near future.

The 6 inflation forecasting models (IFM-s) were reestimated and updated during 2006. The updating process consisted in the revision of constructed series, and in the replacement or addition of a few series as explanatory variables in the models. The forecasts (both monthly and quarterly) obtained from the updated models were regularly presented in the MPR. A new weighting rule was introduced in order to calculate average inflation forecast values for the 12 months (and 4 quarters) ahead. As a result the previous forecast interval for each period, was replaced with a single weighted average value, that took into account the differences in the forecasting power of each model.

From the beginning of 2006 more efforts are put into the assumptions used to extend exogenous variables up to the end of the forecasting period. Since April 2006 a draft of the MPR and a memo-type of document containing assumptions, baseline forecasts, scenario-based forecasts and a list of threats to the inflation target for the short-term are presented to the Committee for the Implementation of Monetary Policy (CIMP) before the scheduled SC meetings. The CIMP, being a highly technical forum of BoA experts, provides the staff with feedback for the MPR while the final responsibility for the forecasts and the proposal for the monetary policy stance remain with the staff. This 'filtering' process carried out by the CIMP has put additional pressure on the forecasting staff to improve the quality of the forecast and analysis and to refine the language of the MPR.

IV. CONTENTS OF THE INFLATION REPORT

The objectives that an IR is intended to achieve can be translated into separate elements of the report, each of which deals specifically with at least one of the objectives. Experts suggest that the logic of inflation targeting requires that three broad themes must be particularly well-treated for an IR to have the intended effect: (1) a discussion of the objectives of policy; the decision-making process and how conflicting objectives are treated; (2) an account of the analytical framework and information on which policies are based, and (3) a presentation of inflation forecasts and an evaluation of past forecasts and policy performance (*Fracasso et al.* 2005). The monthly MPR

produced at the BoA explores in detail the second theme. The monetary policy objectives are discussed in the annual MPD and other non-periodical documents, including Governor's speeches, while inflation forecasts and evaluations appear in the report as confidential information and are used for internal purposes only. Below we present a framework for the IR at the BoA as it will appear towards the end of 2008, right before the evaluation of the preconditions for the launch of the fullyfledged IT-regime.

1. Introduction

The introduction will be a standard part of the IR and it will inform the public on the purpose of the IR, the structure of the report, and the forecasting models. This part may: include a short history of the inflation targeting process in Albania, briefly describe the operational framework of the BoA, and lay out the inflation objective of the BoA. The introductory part will be designed to give a general impression of what is being done and how and it is not intended to cover technical aspects of the IT process.

2. Executive Summary

The opening section of the IR will consist of a brief summary of inflation developments during the last quarter, projections for the future and monetary policy decisions. This section mentions briefly the main demand and/or supply factors that have influenced inflation and highlights developments in the financial market. The summary will also touch upon expectations for the future, potential risks and most likely scenario/s for inflation. The bottom line of the summary will present the monetary policy decision regarding the policy rate in light of inflation forecasts, expectations for economic growth and judgments of the decision makers. The executive summary is a crucial part of the report. It often attracts the special attention of economic analysts and helps them to base their initial impressions. For this reason words must be carefully selected in order to convey as clearly and concisely as possible the main message of the entire report.

3. Inflation developments

The second part of the IR will concentrate on inflation developments with a view to comparing them to past expectations and to the target. Inflation developments will be assessed based on annual percentage changes in the CPI at a quarterly basis⁷. In order to monitor inflation developments directly linked to the monetary policy, the BoA may calculate and publish other measures of inflation such as the *net inflation*. The BoA decides how to construct the *net inflation* series depending on the characteristics of the Albanian economy. However, the measure of inflation under the Inflation Targeting regime will remain the headline inflation based on the CPI series published by INSTAT. Within an IT framework, measures of inflation other than the headline inflation are generally an inherent part of the analysis and are considered as monitoring targets.

Every quarter the actual inflation figure will be compared to past forecasts and past inflation expectations of economic agents. The main sources of inflation expectations will be the periodical BoA surveys⁸. Expectations of economic agents are particularly important within an IT framework, since one of the main goals of the strategy is to anchor expectations towards the desired objective.

The last part of the second section will discuss inflation performance relative to the inflation target of 3% and the tolerance zone of 3% +/-1 percentage point. The assessment of the monetary policies' effect will be based on the inflation forecast and monetary policy decisions taken in past. An evaluation of the main assumptions, past judgments and other unexpected shocks within this period will be included in the report.

4. Factors determining headline inflation

This section of the report will focus on the factors with the strongest impact on inflation during the current quarter. The factors are divided into three main groups: external environment factors, demand side factors and supply side factors. In inflation reports this section is essential as it lays out the overall functioning of the economy in the context of inflation developments. In the case of Albania, the substantial time delay in the publication of data and other data-related problems present a serious impediment to the analysis of the real sector of the economy. As a supplement to official statistics, the BoA intends to use data obtained from business, consumer and other surveys.

The external environment plays an increasingly important role in individual economies as the globalization process intensifies. For this reason, developments in the largest economies and especially in the main trading partners of Albania will be of relevance in this part of the report. The latest developments in key areas of these economies will be assessed.

Demand side factors influencing consumer price inflation will be analyzed in the context of: government spending and investments, private consumption, investment and inventories and net external demand as measured by the balance of payments.

The government demand is assessed based on the analysis of the fiscal balance sheet as well as on the projected budget for the current year. The purpose of this analysis is to evaluate short-term pressures on inflation driven by unforeseen developments in the fiscal sector and to periodically assess the compatibility of the fiscal projections with monetary policy targets and decisions.

Private consumption is another relevant component of the demand in Albania. The analyses up to now have been based on estimations rather than hard data⁹. BoA plans to overcome data problems by relying on retail sales produced by INSTAT and qualitative series obtained from the CCS.

Private and public investments will be analysed in the IR as part of the aggregate demand in Albania. Until hard data on private investment become available, indirect indicators such as imports of machinery and equipment, and investment and housing-loans from the monetary survey can be used. The IR indicators of the tendency of private investment from the quarterly BCS data and RBS can serve in the early stages.

Balance of payments data compiled quarterly by the BoA will be used to measure net external demand and to assess pressures coming from the external environment. Developments in the current account, trade in goods and services, and in the capital and financial account will be monitored closely.

Supply side factors will be analysed in conjunction with demand side factors. Trends in the output will be assessed based on the production of the major sectors in the Albanian economy. The effect of costs of production on the output of these sectors will also be analysed. The report will look at developments in input prices and at the effect that trade and other types of agreements have had on these prices. At present quarterly data on sectoral output are not available. The index of retail sales may be used as a proxy for production in the early stages of the report. The contribution of each sector to the overall growth will be calculated and analysed accordingly. Data from the BCS can also be used as indicators of the performance of the main sectors of the economy.

The match between demand and supply factors will be assessed through measures of capacity utilization. The focus of capacity utilization analysis will be to judge if the economy is producing above or below its production capacity. Developments in labor supply and pressures in the labor market will be presented also in this part of the report. The dynamics observed in capacity pressures will be closely monitored as they reflect the evolution in the output gap. In the early steps of this type of analysis the main source of information for capacity utilization rates may be the BCS. An alternative measure for output gap is to be constructed by the BoA staff in the near future.

Unit labor costs and productivity are important elements of the economic analysis within an IR and they will receive due attention in the future BoA reports. Until official data are produced by INSTAT, BoA will rely upon data from the RBS to calculate these indicators. Changes in the producer price index are expected to precede and to some extent drive changes in consumer prices. The relationship between producer and consumer prices will be formally explored further in the future when the series for all economic sectors become available. Due to the high share of imported items in the consumption basket, the consumer price level in Albania is to a great extent influenced by developments in imported inflation. Import price inflation appears as one of the most significant explanatory variables in the inflation forecasting models. For this reason, particular attention will be devoted to the construction and analysis of this factor in the future IRs.

5. Monetary and Financial developments

The link between inflation and money is widely explored in economic literature. In the context of Albania, the money market developments will be assessed through an overview of monetary aggregates, credit supply and interest and exchange rates, viewed as components of the transmission mechanism of the monetary policy.

Monetary developments are analysed in terms of supply and demand for money. Demand for money is reflected in the developments of credit to the private sector. To better serve the purpose of the IR, this component of total credit will be divided into credit to households and credit to companies. The credit for consumption is of special importance in the context of inflation pressures analysis. The final use of credit can be one of the indicators of trends in investment and consumption. Another key component of the financial developments analysis will be the short and long-term interest rates along with the exchange rate.

Asset prices are expected to exert significant pressure on consumer prices. Many asset prices are formed by expectations of future economic events and are thus likely to contain useful information for central bankers. For this reason a discussion of developments in housing prices is required in the IR analytical section. The BoA RES will serve as the main source of information for real estate prices.

6. Inflation forecasts

Inflation forecasts play two crucial roles in an inflation targeting framework: they serve as an input into policy decisions and as a communication tool. Timely communication of the inflation forecasts enhances the clarity of the decision-making process and the capacity of the public to comprehend and appraise the performance of the central bank Kriljenko *et al.* (2006). The inflation forecasts of the BoA will be presented in a predominant section of the IR. In this section the focus of the analysis shifts from past events to projections for the future. It presents readers with the inflation forecasts prepared at the beginning of each quarter.

Along with the inflation forecasts¹⁰ the IR will present baseline assumptions regarding external factors. As the results of the forecasting process depend a lot on the size and direction of the assumptions, the construction of the assumptions will require careful consideration. At the same time the BoA staff will prepare a set of scenarios reflecting possible risks to achieve the inflation target. A preliminary analysis of economic and financial developments, inflation forecasts, assumptions and scenarios will be presented to the SC before the rate-setting meeting. In a subsequent meeting the SC will approve the final revised version of the IR which will contain also the monetary policy stance.

Regarding the policy rate assumption, central banks have considered different types of explicit interest rates paths. In the majority of the cases, inflation targeting central banks use the constant policy rate or the expected market interest rate as an input to their inflation projections. Considering the overall conditions of the Albanian economy, and particularly the stage of the financial market development, the BoA has chosen to apply the constant interest rate assumption.

7. The policy decision

As said before, in an IT framework the monetary policy decisions are guided by the gap between the forecasted inflation and the inflation target. Normally, the SC decides on a change in the policy rate when the inflation forecast falls outside the target range or near the borders. Since judgment is an important aspect of the decision-making process, the SC decision on the policy rate need not always be conditioned by the inflation forecast. Kriljenko *et al.* (2006) emphasize that the decision on the monetary policy rate is necessarily judgmental. Klöckers (2005) suggests that relying on a purely model-based forecast may be too rigid an approach for a rapidly developing economy like Albania. The SC will use all the possible sources of information to create a solid picture of the past and future economic developments on which to base its judgment and decisions for the monetary policy rate.

8. Statistical appendix

This section of the report will present tables containing a wide range of macroeconomics variables, mentioned in the report. The statistical appendix can also contain graphical presentations of the data series of a special important for the IR.

9. Boxes

The IR can also contain boxes in different sections of its structure. The main goal of boxes is to communicate new ideas that are introduced in the analyses or decisions of the central bank, fulfilling the educational function of an IR. In the boxes the analysts could explain more in detail the theoretical background of new situations in the economy and their influence on inflation.

V. PATH TOWARDS IR IN THE NEAR FUTURE

The transformation of the current MPR into a fully-fledged IR is envisaged to take place within the next two years and this process will be gradual. The BoA favors a gradual transition rather than a one-step change because this process would allow the institution to increase the quality of analyses and forecasts while providing room for a continuing education of the public in line with the IT communication strategy. The final goal is to be able to come up with a comprehensive and comprehensible IR at the time of the official launch of the nearly fully-fledged IT regime envisaged to take place at the beginning of 2009.

Considering the actual structure of the MPR, a gradual transition should be understood as the publication of simplified versions of the currently confidential part of the report¹¹ that will be enriched with every additional report throughout 2007-2008. In its final stages, the IR will also include a section where the effectiveness of past monetary policy decisions will be assessed.

As the IR and other documents in support of IT are developed, older documents need to be cut back and refocused (Heenan *et al.* 2005). In accord with the provisions laid out at the Open Forum¹² (December, 2005), the BoA intends to shift from a monthly-based framework to a quarterly-based one. Under the new framework the BoA will target inflation forecasts on a quarterly basis. This shift calls for the publication of a quarterly report with a full set of analyses and forecasts. To this end, the BoA plans to replace the monthly MPRs with quarterly MPRs from April 2007 onwards. As the number of the SC meetings is greater than the number of the quarterly MPRs the BoA will publish short documents in the form of press releases to announce monetary policy decisions. These reports will include a short assessment of the effectiveness of past monetary policy decisions. The full details will follow in the subsequent MPR.

Given the limited time-span of two years, the gradual transition from MPR to IR can be achieved if every quarterly report prepared during this period brings to the public additional information, which currently is perceived as sensitive. In this context, feedback on the reaction of different economic agents would be highly valued by the BoA experts. The BoA plans to overcome the difficulty of presenting the report to the general public by distributing the first MPR as a pilot report to a specific target group of economists, academics and representatives of financial institutions. The following quarterly MPR will reflect useful comments and suggestions received at the first stage.

At the end of 2007 the MPR will for the first time present a graphical inflation forecast¹³. By that time the quarterly MPR and the supporting Inflation Forecasting Models will have grown into mature tools of evaluating and communicating appropriately the inflation and economic conditions. In the course of 2008 the quarterly MPR will be further improved in all remaining respects.

VI. CONCLUSIONS

An inflation report is considered as a key element for the central bank to provide retrospective and prospective accountability for its performance with respect to the inflation target. The contents, style, level of detail and other organizational aspects vary across countries. In this paper we outline a framework for the BoA IR in the context of the envisaged IT regime. The paper builds upon the argument that the existing MPR is a good foundation for the future IR. Keeping in mind the basic requirements for a fully-fledged IR in the context of Albania, we propose a gradual transition from the existing MPR to the IR. In some aspects the IR will be an extension of the MPR but it will also be enhanced with a number of key features that are currently not produced or released to the general public. The main additions to the report will be the discussion of risks and uncertainties in the economic and inflation outlook, the numerical inflation forecasts and the evaluation of the effectiveness of past monetary policy decisions. To ensure that the central bank gets its message across clearly to the target audience the enhancement of the guality of the analysis, of the forecasts and of the decision-making process in general must be supported by a sound communication strategy.

* Diana Shtylla, Head of Economic Division, Monetary Policy Department, Bank of Albania and Erjona Suljoti, Head of Monetary Office, Monetary Policy Department, Bank of Albania.

¹ The authors would like to thank for their valuable comments and discussions the members of Legal Department of the Bank of Albania, Marga Peteers, Erjon Luçi and Erald Themeli. The views expressed in this paper are those of the authors and do not necessarily represent those of the Bank of Albania.

² For more details see Kolasi et al. (2001).

³ For more details see Hlédik, T. (2002).

⁴ For more details see Hoda, B. (2005).

⁵ For more details see Kota et al. (2006).

⁶ Presented in the confidential section of the MPR.

⁷ For more details see Hoda, B. (2005).

⁸ By periodical surveys are meant: quarterly CCS, the BCS and the lending and deposit activity survey (LDS).

⁹ INSTAT publishes annual data on the final consumption of households, nonprofit organizations and general government at current prices. For more detailed see Shijaku et al(2006).

¹⁰ As of present, no decision has been taken regarding the final form of the published inflation forecast, as explained in the next section.

¹¹ This part contains forecasts, risk analyses and the monetary policy decision. See Table 1.

¹² See Hoda, B. (2005).

¹³ See Kota *et al.* 2006.
Çeliku E., Shtylla D., Hashorva G., Hoxholli R., Kota V., 2006 "The Portfolio of Econometric Models for Inflation Forecasting at the Bank of Albania: Updated in 2006" Bank of Albania Discussion Paper for the Round Table on Inflation Targeting 2.

Dushku E., Kota V., and Binaj G., 2006, "A Macro Econometric Model Approach For Albania", Bank of Albania Discussion Paper for the Round Table on Inflation Targeting 2.

Fracasso A, Genberg H, Wyplosz Ch, 2005 "How Do Central Banks Write? An Evaluation of Inflation Targeting Central Banks". Geneva Reports on the World Economy Special Report 2.

Geraats, P., 2001, "Why Adopt Transparency? The Publication of Central Bank Forecasts" Working Paper No. 41, European Central Bank.

Heenan G., Peter M., Roger S., 2005, "Practical Elements of Inflation Targeting: Institutional Set-Up, Target Design, and Policy Communications" IMF Working Paper.

Hlédik, T., "Monetary Policy Framework and Economic Research at the Bank of Albania", Report from IMF Technical Assistance Mission, 10 - 19 June 2002.

Kolasi G., Celiku E. and Hashorva G., "Inflation Tendency in Albania during the last Decade: an Empirical Outlook", Bank of Albania Quarterly Economic Bulletin, Vol.4, 2001.

Kota, V., Hashorva, G., Peeters, M., Çeliku, E., 2006 "Evaluation of the Headline Inflation Forecasts made in April 2005 - September 2006", Bank of Albania Discussion Paper for the Round Table on Inflation Targeting 2.

Kriljenko J., Kisinbay T., Maino R., Parrado E. 2006, "Setting The Operational Framework For Producing Inflation Forecasts", Central Bank of Chile Working Papers.

Mishkin, Frederic S., "Can Central Bank Transparency Go Too Far?", October 2004. NBER Working Paper No. W10829

Nervaj, E., Kaso R., Kraja I., Lama D., Peeters M., 2006, "A Proposal for the Inflation Targeting Communication Strategy of the Bank of Albania", Bank of Albania Discussion Paper.

Shijaku H., Ceca K., Ruçi E. 2006, "The Improvements in the Statistical Framework for Inflation Targeting in Albania" Discussion Paper for the Round Table on Inflation Targeting 2. Bank of Albania, "Preconditions for Inflation Targeting in Albania", Open Forum, December 2005.

COMMENTS ON: THE FUTURE OF THE MONETARY POLICY REPORT WITHIN AN INFLATION TARGETING FRAMEWORK

David G Mayes*

THE STRUCTURE OF THE INFLATION REPORT*

The proposals for the Inflation Report are detailed and reflect commendable thought and effort but they are also inevitably rather intangible. It is therefore relatively difficult to assess what it is going to look like, except in so far as it is planned to see it evolve from the existing Monetary Policy Report. There are clear advantages of continuity but also a danger that perceptions may not change very much as a result. The proposal suggests that it should both be a document of record and an explanation of the monetary policy decision and intentions. Given that a statistical appendix is planned this could make it a very hefty document. My immediate comment is therefore in the context of a small institution and a small team to try to keep the document small and closely focused. My suggestion therefore is to set accountability largely on one side and to seek a different route to ensuring it. Simply keeping a full record could be consigned to making an annual report, for example.

The Bank of Albania has no doubt done its own survey of the Inflation Reports and similar documents produced by other central banks and looked at independent assessments of them. The obvious conclusion is that there is a great deal of variety and there is a large element of taste in making a decision. Earlier in the year I participated in a workshop in Montenearo which reviewed a number of the best known reports. There was no consensus on which were the best, although some few people liked. It was clear that presentation and style are important - colour in complex charts helps, for example. However, the Bank of Albania's proposals focus on the most important facet, which they label 'transparency', although, it is probably some wider concept of comprehensibility that is really at stake. Allowing people free access to the Bank's documents and meetings would not solve the problem although it is probably about as far as simple transparency can go. Achieving the necessary comprehension requires positive action to package what is being done and will be done in the future in an effective manner. The Bank will want to be predictable to the extent that the uncertainty about the economy and the agents in it allows. The Inflation Report is an important tool in achieving that but it will not be able to do the job on its own. Press conferences may help – a view certainly held by the Eurosystem. The range of supporting information available on the website will also help as will testimony before the legislature. Legislators will be able to ask the questions that trouble others as well and a live session in which people can see the body language will all be helpful.

The advantage of an Inflation Report is that it sets out the whole picture coherently at one time in the words the Bank wants to use. There is no danger of being cut off before completing a statement, although the busy reader may well skip bits and misunderstand. It is not normally necessary to say something new at frequent intervals, as events do not change fast enough and new remarks might cause volatility, so the measured pace at which such a document has to be produced is no problem.

Whatever the choice, there are some basic requirements. An Inflation Report needs to have some standard tables that are augmented on each occasion but primarily the purpose of the document is to explain the Bank's view of the economy so that not simply the current policy decision is understandable but also the possible sequence of future decisions to ensure the maintenance of price stability. A key function is to keep expectations tightly focused on the inflation target by showing plausibly how it will be achieved over the foreseeable future. As the proposals suggest, this requires transparency about the process and governance not just about the thinking on any particular occasion. The Bank can build this up from its track record but it is the governance structure that gives the assurance this will happen in the future. The Inflation Report does not need to do all of this itself.

The most important part of an inflation report is the summary or press release, which is likely to be about a page in length. This will enable it to appear substantially on the wire services, in analyst reports and in the principal media. In New Zealand the Governor reads it out live on television. Investors, borrowers, journalists and other commentators are looking for a simple guide to the stance of policy and the main risks in order to consider whether financial assets should be repriced. The function of the report is to provide the grounds for this summary.

On each occasion, therefore, the Report should effectively tell a story, starting from the evolution of the recent past and an assessment of the external factors that will affect the economy – not just from the rest of the world but also from internal events that are likely to shape the longer term future. Government policy will feature strongly in this. Particular topics, either in policy such as the treatment of specific supply shocks or conundrums such as the rise in real estate prices will need elaboration. The Report will tend to be longer when there is a problem or when policy reaches a turning point.

In what follows I will just focus on three issues: the role of the model in the report, the treatment of uncertainty and ownership as these seem particularly relevant to the Albanian case.

OWNERSHIP

There is a brief discussion in the proposals of who owns the document. This has a crucial impact on its form and the decision is closely related to the structure of the Bank's decision making system. If the decision making body can be intimately involved in the production of the document then it is likely to be a good representation of their thinking and a much more helpful guide to outsiders. For large 'federal' arrangements this is hopeless. The Federal Reserve in the US does not attempt it. The Eurosystem uses a statement and a Monthly Bulletin produced by the ECB but it does not attempt to capture the range of views held by its decision making body that will be 19 strong as from January. The Bank of Albania on the other hand could manage such a tight arrangement, with decision makers agreeing how forecasts are to be structured, discussing outcomes and requiring changes, setting out the line of argument in the Inflation Report and editing the text.

The obvious alternative is to make the Inflation Report a largely formal document produced by the staff and separate it from the press release or summary produced by the decision making committee. This difference makes for very different documents. It is obvious that I prefer the first as this was the approach in both the Reserve Bank of New Zealand and the Bank of Finland before we entered the Eurosystem. The 'ownership' by the Bank as a whole, whether embodied in the Governor or the Committee, makes it far easier to talk about the document in public. The Bank of Canada decision makers deliberately distance themselves from the report of the staff, although of course they view what the staff produce with the highest regard, otherwise they would not be employing them. This introduces a somewhat stilted element to the presentation. The Eurosystem also separates the projections made by the staff from the policy discussions, with the former being the responsibility of the Monetary Policy Committee and the latter the responsibility of the Governing Council. (That role for the Monetary Policy Committee can be somewhat confusing as many central banks use the label Monetary Policy Committee for the decision making body.)

There is of course a problem with committee ownership where the members of the committee have individual responsibility. Then disagreement will need to be recorded and probably made

public. The Inflation Report is not a good vehicle for this as it muddies the message. The device used in these circumstances is to publish separate minutes of meetings, where minority views can be fully recorded. The Bank of Albania appears to be stopping short of this difficulty and keeping the discussions confidential. However, it is appropriate to record the variety of view when uncertainty is areater as this in itself is helpful information to markets as it signals that a change in tack is more likely than usual at the next meeting and this information should be incorporated in financial prices. Keeping guiet and then changing might appear inconsistent and weaken credibility these are difficult iudaements. A particular advantage of having a proper Inflation Report is that it avoids the need to speak in code to try to indicate where policy may go next. This avoids the awkwardness of phrases like 'watching developments closely' - no central bank would ever want to do the opposite.

The Bank of Albania faces a similar problem as all central banks in countries where English is not a native language. The Report will need to appear simultaneous in English and Albanian. The process of production thus needs to allow adequate time for translation and checking.

HOW FAR DOES THE MODEL DRIVE THE DISCUSSION?

One means of trying to keep the Inflation Report fairly technical and neutral with respect to the decision yet to be revealed by the policy making committee is to drive it off fairly formalised assumptions, models and processes. In my view this is an illusion. Making obviously erroneous assumptions helps neither the decision makers nor the communication of policy. The distinction between assumptions and forecasts or 'projections' (another word used to soften the nature of the assessment of the future) is to some extent semantic but in the main reflects whether it is an input to the process of computation rather than an output. Some 'assumptions' have political origins. Central banks are understandably reluctant to say that their forecasts are based on the presumption that the government loses the next election. They can get round this by showing a scenario which reflects opposition policies but even this has to be done with enormous care to avoid being accused of trying to influence the outcome of the election. There is perhaps a limit to transparency here!

While it is possible to divide up the forward look and consider the output of models separately as is the case in the Eurosystem at present, with the separate monetary pillar, most central banks find it sensible to combine the information into a single presentation, where monetary information is one of the integral building blocks. The problem most face is that money does not play a core role in their main model and hence has to be incorporated in a less comfortable way. The Inflation Report should try to provide the integrated explanation rather than reflect the procedural decisions in forecasting. This inevitably means that judgement plays the over-riding role. This in itself makes it a little difficult to publish two sets of judgement, one from the staff and one from the committee. For this reason it is suitable to get a single view, either by involving decision makers in the process or by keeping the staff's advice confidential – at least for a while as in the case of the United States.

UNCERTAINTY

My final remarks deal with an issue which is essential to the content of the Inflation Report but is not addressed in the Bank of Albania's proposals. Uncertainty means that remarks about forward looking policy have to be qualified. The problem is on the one hand not to qualify them to the extent that people start to lose confidence in the ability of the monetary authority to take decisions. And on the other, not to show excess confidence and hence be found to be wrong too often, as this will also harm confidence. Finding the appropriate middle path is not easy.

Part of the problem we face is that none of us know the future. We are therefore trying to give confidence within bounds. The problem is how to set this out. There are three obvious solutions. The first is simply to discuss the possibilities. However, most people require some quantification, even if it is only an expected value or most likely outcome. A second step, which I favour, is to set out what some plausible alternatives might look like. Such scenarios need to be complete. In particular, policy must be endogenous. If, for example, rather higher oil prices than in the most likely outcome seem a reasonable possibility, it is necessary to explain how such higher prices come about. Is it higher activity in the world as a whole? Is it a more effective cartel among the producers? The particular circumstances matter as these will affect other variables. If it were to put pressure on exchange rates would the authorities react? All of this needs to be addressed.

The third and widely used approach, pioneered by the Bank of England, is to produce fan charts that show the probability of various outcomes. These rest on strong assumptions and reflect just three parameters, mean, variance and skewness. The distribution, usually normal is assumed. The Eurosystem applies this consideration to the key variables whose assumptions determine the forecast, which seems the most logical approach, although the implications are still mechanical. By showing the distribution, even in bands, the central bank is implying a level of accuracy that may be underserved. If the bands of uncertainty are relatively wide, that in itself will tend to reduce confidence. Since the Bank intends to keep inflation within close bounds this limits the future variance as errors will be corrected.

It is thus tricky in an Inflation Report to find the right balance between authority in action and the right degree of realism or humility about the likely accuracy of projections. The Bank of Albania will have to pick its way carefully through this experience. Having a phased introduction will help in this regard. But here as in the other parts of the Report while implementation can be gradual the nature of the fully fledged product has to be clear from the outset. Any degree of experimentation would therefore run the risk of reducing credulity but such decisions cannot be obtained by experimentation in the laboratory. This takes us back to the initial remark. There is great variety in reports, it will be interesting which features the Bank of Albania chooses.

^{*} David G Mayes, Bank of Finland and University of Auckland. These remarks are made in a personal capacity and should not be attributed to the Bank of Finland or the Eurosystem.

COORDINATION BETWEEN THE CENTRAL BANK AND THE MINISTRY OF FINANCE UNDER INFLATION TARGETING

Erjon Luçi Marian Gjermeni Anjeza Gazidede*

ABSTRACT

In this note we discuss the coordination issues between the central bank and the Ministry of Finance, and try to identify those areas where there is scope for further improvements that could benefit both parties. We focus on three major areas: (1) coordination between the monetary and fiscal policy; (2) cooperation in achieving common goals in other areas; and (3) information sharing.

1. COORDINATION BETWEEN MONETARY AND FISCAL POLICY

A quick review of the literature shows how important the coordination between monetary and fiscal policy is in achieving their respective objectives even when these are clearly defined. Sargent and Wallace (1981) has pointed out that tight monetary policy could be inflationary if government borrowing is sufficiently high. Alesina and Tabellini (1987) show that the standard result that rules are better than discretion does not necessarily follow when there are policy co-ordination problems. In Blake and Weale

(1998), it is argued that even when the policy targets are clearly defined in terms of inflation and the budget deficit rather than output for the monetary and fiscal authorities respectively, it is possible for the uncoordinated policy to generate an inflationary bias in equilibrium. This is because of the long learning process of each other reaction functions. The soundness of fiscal policies becomes particularly important under a transparent regime such as inflation targeting. Its success depends critically on the central bank ability to preserve a good record of low and stable inflation without engaging in costly uncoordinated policy games. To this end, proper institutional settings that ensure consistency between policies pursued by monetary and fiscal authorities need to be in place.

The coordination between monetary and fiscal policy in Albania during the transition period has been satisfactory with the international factor playing a critical supportive role in this regard. Since 1992 Albania has gone under several IMF supported programs. The Memorandum of Economic and Financial Policies (MEFP) signed by both the Government and the Central Bank in the course of these programs has been an effective device to steer both fiscal and monetary policies in a consistent way with the objective of a sustainable growth at low rates of inflation. Preferably this experience should be extended in the future even in absence of intermediation of third parties. For this purpose a reduced form of MEFP named Memorandum of Macroeconomic Stability (MMS) could be prepared under a different institutional arrangement to guarantee the consistency between fiscal and monetary policies. How can it be achieved?

According to Alesina et al. (2000) coordination would be unnecessary if both fiscal and monetary authorities follow clear rules such as balanced budget and inflation targeting respectively. Given the uncertainties of the transition process it might be overambitious sticking to some rules mechanically. Therefore some flexibility is indispensable. But the need for some flexibility cannot justify full discretion which would undermine the building up of reputation by both institutions. It follows that an important component of any MMS should be the commitment of both institutions to some clear rules. For the monetary authority the inflation targeting framework proposed to be adopted by the Bank of Albania is an effective rule to achieve low and stable inflation while allowing for some flexibility to respond to real shocks. For the fiscal authority the sustainability of public debt requires budget deficits to be in line with economic growth and interest rate developments and let automatic stabilisers operate. (Some external anchors that could make rules more binding could be useful here e.g. joint Czech Government–European Commission document Joint Assessment of the Economic Policy Priorities of the Czech Republic, which defined the main outlines of the Czech Republic's policy orientation in the run-up to EU accession).

Once the rules are known consistent monetary policy and fiscal policies will be set out. The consistency analysis needs to be based on realistic projections. If the assumptions behind projections are sound the consensus on respective targets would be easier. This can be achieved by enhancing the cooperation of the units of economic analysis between the two institutions. This would be beneficiary both in terms of expanding the information base and to corroborate projections. The outcome of this interaction would be the core part of the MMS and will enable the two authorities to operate on common grounds in terms of projections and targets. The MMS will be signed by the Minister of Finance and the Governor each year. Other meetings between the two and at lower layers of both institutions may follow up during the year to guarantee the compliance with the MMS¹.

The experience of several developing and developed countries shows that high level meetings between the Minister of Finance and the Governor of the central bank are a common practice (Moser-Boehm, 2006). The frequency of these meetings may vary depending on the variety of topics being discussed and should not necessarily be regular. Personal preferences and/or certain events may shape both the frequency of the meetings and the range of topics being discussed. In any case, the coordination between fiscal and monetary policy should be on top of the agenda. Revisions of or deviations from MMS projections may serve as a guide. Preferably a meeting should be called before any major policy change in order to consult for possible inconsistencies in which case adjustments could be made accordingly.

1.2 COORDINATION AND INDEPENDENCE

The coordination should not be considered as a window for the government to exert pressure on the bank to relax its preference for low inflation. Bank of Albania enjoys sufficient independence (or target autonomy) to abstain from agreements like MMS if it believes it might endanger its reputation. Under inflation targeting there is an issue that requires particular attention to avoid any clash between cooperation and independence. This is the direct credit to government facility of the Bank of Albania.

The relationship between Government and Central Bank has particularly important implications for IT if direct or indirect financing is not prohibited or restricted sufficiently to enable central bank achieving its target. In our view, the law of BoA of 1992 has been very evasive on this point. Although it was designed to limit the credit to government, the escape clause was vague and permitted the government to override credit limits continuously since 1992. Similarly the law of 1996, despite limiting direct credit, it overlooked indirect credit through secondary market. This pushed further changes of the law in 1997, which considers open market operations, or in the secondary market, as BoA loans to the government and therefore subject to the overall limits of credit to government specified by law.

Instrument independence requires central bank to be free of any obligation to finance government budget deficit directly or indirectly. However, under certain circumstances central bank might still have to extend some funds to the government provided clear restrictions are in place. In transition economies the combination of the government inadequate debt management infrastructure with the underdeveloped financial markets it is a recipe for temporary government liquidity distress. This has little to do with Kydland and Prescott (1977) government incentive to inflate the economy. Therefore, the limited option of direct credit to government could be considered as a safety-net measure to help government running their normal activity until better debt management and deeper financial markets make these distress periods easily avoidable.

Article 30 of Bank of Albania Law clearly says "At no time shall the agaregate principal amount disbursed and outstanding on Bank of Albania loans to the Government of the Republic of Albania exceed the equivalent of five percent of the annual average of the Government of the Republic of Albania ordinary revenue for the three financial years immediately precedina for which accounts are available". Although theoretically government may exploit this facility to pursue at some point in time an expansionary fiscal policy first, it cannot generate a persistent inflationary bias given that the five percent limit is exhaustive and second, the central bank can easily counteract the impact by reducing the indirect credit to government by the same amount. The strategy of using contingency funds to reach other aims is not only unsustainable but also risky. Therefore, in our view, the incentive of misusing this liquidity window is low to endanger the achievement of central bank objective.

However, the safety net liquidity window should not reduce the incentive of either government or central bank to tackle the problems behind fiscal liquidity disorders. Both institutions have a lot to gain if they join their efforts for the development of financial markets and improvement of debt management. The principal components of a sound debt management are based on the importance of having specified debt management objectives, proper coordination between debt management framework, and a strong operational capacity enabling efficient funding and sound risk management practices. To this end the following measures might be considered:

 Establishment of an adequate forecasting facility in the MoF (surveillance of receipts, expenditures and overall forecast). In order to achieve an accurate forecast of the government's funding requirements it is necessary day by day revenues and expenditures forecast.

- 2. Pay particular attention in moderating the seasonal fluctuations of revenues and expenditures especially the expenditures one, because there is always a shift of government expenditures toward the closure of each fiscal year.
- 3. The MoF should provide accurate, reliable and timely information about the issuing calendar and this information should be announced to the market participants. (Actually this calendar is publicly announced, but the experience has shown that it has always changed according to the liquidity needs of the government generating again and again liquidity forecasting problems.)
- 4. Better coordination between MoF and central bank for the government's current and future liquidity needs.
- 5. The widening and broadening of a diversified investors' base, paying particular attention to diversifying away from the reliance on one or few banks. A heterogeneous investors' base with different time horizons, risk preferences, and trading motives ensures active trading, thus, creating high liquidity.
- 6. Evaluate the benefits of encouraging foreign investors.
- 7. Promote repo and money markets in order to improve liquidity in the government securities market.
- 8. Development of secondary market, with the active participation of investors and of the providers of trading and settlement infrastructure.
- 9. The necessity for extending the debt maturity. In the last two years there has been progress in extending the debt maturity of the government securities. The introduction of new debt instruments, such as 3 year maturity bond and 5 year maturity bond respectively in April 2005 and November 2006 and the wane in the reliance for issuing treasury bills have been the main indicators. The roll over of the debt in treasury bills during last year was diminished by 4.1 billion lek, which indicates an alteration in the debt management strategy².

10. The allocation of the responsibilities among the Ministry of Finance and central bank for debt management policy and for undertaking primary debt issues, secondary market arrangements, and depository facilities for trade in government securities should be publicly disclosed.

2. COOPERATION IN OTHER AREAS

Cooperation could be extended also in other operational functions like government debt management and market liquidity management. A closely related area is the development of government securities market.

An efficient government securities market is characterized by a competitive structure, low transactions costs, low level of fragmentation, a robust and safe infrastructure and a high level of heterogeneity among market participants. Developed government securities market can reduce the need for direct and potentially threatening financing of government deficits and avoid over reliance on foreign currency denominated debt. It can also strengthen the transmission and implementation of monetary policy by improving the use of market based indirect monetary policy instruments. Achieving a sufficient level of consistency in policy formulation and administrative coordination between monetary and fiscal authorities is essential for developing a government securities market.

Economic instability erodes investors' confidence by increasing the risks associated with investing in government securities market. On the other hand, a paucity of institutional investors, low domestic saving rates and lack of interest from international investors can result in a small and concentrated investor group, violating the heterogeneity condition of an efficient market. Excessive reliance on the banking system to mobilize savings to invest in government securities has proved to be costly. An important aspect of broadening government securities market participation is finding ways to challenge banks' high margins between deposit rates and the risk free government securities, and promote reselling of government securities by banks and other financial institutions to smaller end investors.

To lower the cost of the debt and the volatility of yields, the government needs to stimulate a diverse investor base and develop instruments, trading facilities, and distribution networks that suit the needs of those investors best. A diverse investor base will minimise collusion practices by a small group of investors and guarantee the government a continuous and smooth financing of its needs. Involving foreign investors it is essential not only for broadening investor base but also to promote the efficiency and the stability of the market. Therefore, an important initiative to accelerate the development of securities markets would be the implementation of appropriate rules and regulations to encourage the participation of foreign investors in this market.

Several other competing initiatives for developing the securities market with short and long term effects could also be considered. Among those with immediate and medium term effect would be the standardization of issues, the change in auction procedures and schedules, and upgrading trading facilities, settlement systems, securities depositories, market. Other important steps need to be taken with regard to market regulation such as: the establishment of an effective legal framework for securities issuance, the development of an effective tax infrastructure by removing any impediments which may hinder trading in government securities, and the development of an effective regulatory environment to foster market development and enable sound supervisory practices to be enforced. Also removing regulatory and fiscal distortions, which hinder the development of institutional investors, is another measure to be considered.

For a well functioning primary market of government debt, further improvements in auction procedures are needed. By opening the auction to a wider range of participants the government can foster competition among the banking sector and improve the auction results. One solution to foster competition among participants and reduce the dependence on few banks can be the establishment of the "bid ceiling". As a general rule ceilings for bids are helpful to ensure competition among bidders and protect the integrity of the auction. Ceilings on the maximum possible allocation per bidder are considered anti-cornering instruments, useful to prevent manipulation of the auction by one large participant.

A principal component of the infrastructure needed to support the development of securities market is a modern and efficient securities settlement system. The settlement system affects the degree of confidence the investors have in the market infrastructure. It also guarantees trading in primary and secondary market flows smoothly, and improves the capacity a market has to expand. For a suitable securities settlement infrastructure, a settlement system with delivery versus payment (DVP) can be one of initiatives to be followed in the short term. By imposing DVP, safer and more efficient channels for the distribution of the securities targeted to investors' needs are created and thereby the transaction's costs can be lowered. Also utilizing new technology, such as internet penetration and wireless communication systems can build a broader investors base and reduce the transaction costs in advernment securities market.

Another medium term challenge for the government in developing the market is the progressive increase of the maturity of government securities which will help to create a government benchmark securities. The development of this benchmark is an essential element of well functioning government securities market. Government can assist the development of liquidity in a relatively limited number of popular and standard maturities, by concentrating the forthcoming new issues mostly in those securities and thereby lowering their issuance cost. In turn such issues will serve to the market as convenient benchmarks for pricing of a wide range of other financial instruments. Distributing benchmark issues across a wide range of maturities will enable the construction of a benchmark yield curve which will facilitate market pricing of financial instruments across a similar maturity spectrum. More active and informed markets in return are expected to improve the effectiveness of the

transmission mechanism of the monetary policy. By promoting the development of benchmark securities will also reduce the government borrowing costs for a given maturity, as it will enable the governments to capture the liquidity premium. However, building benchmark securities requires the government to stick to a borrowing schedule that may not always coincide with its current needs for funds.

On the other hand, a broad range of debt instruments may allow the government to address the preferences to different investors. But too many products can also "fragment" the market. Experiences of more mature markets seem to suggest that the cost of market fragmentation far outweighs the benefit of product diversification. A fragmented debt structure hinders substitutability between government securities, reduces the size and trading volume of the benchmark issues and disperses market liquidity over many issues rather than over a limited number of benchmark instruments. Fragmentation also limits dealers market making capacity by forcing them to hold a larger number of securities in their inventories or to engage in extra and possibly costly risk management activities. The market fragmentation is minimized by issuing the government debt in regular basis, limited set of maturities and in relatively large sizes. Consequently, the government should consolidate and standardize its debt issues, with an emphasis on issuing marketable treasury bills and bonds.

In order to minimize the cost and risk over the medium to long term, debt managers from the government should ensure that their policies and operations are consistent with the development of an efficient government securities market. Therefore, a shift toward market oriented funding of government budget deficits also reduces debt service costs over medium to long term. To be sustainable in longer term, however, the move from short to long run term funding instruments requires initiatives in multiple areas, as the market fundamentally changes with this move. The development of the repo market can help at this stage, as it will allow short term investors to invest in longer instruments without being afraid of not being able to sell the securities when the money is needed. Progress in this area cannot be achieved without the active participation of the central bank. Supporting the development of an effective repos market should be a key priority.

The main liquidity vehicle, however, should be the secondary market, where the investors with short time needs are able to sell longer term securities before maturity. Proper secondary market regulation and infrastructure are particularly important in gaining investor confidence for participating. The government should first concentrate on building a safe system for the secondary market. Without the key inaredients of "trust" and "transparency" development of a liquid secondary market is not likely to be successful. Prudent regulations and governing trading practices should be in place. Government can promote the development and maintenance of an efficient secondary market for its securities by removing both taxation and regulatory impediments that hinder the investor's willingness to trade securities. In fostering the secondary market the use of repos can be a useful tool, as they serve unique functions for both private sector and the monetary authority. The existence of repos market is also necessary for the development of an active government securities market. Borrowing and lending between market participants, including banks, financial institutions, can be fostered on a safe and secure basis by relying on repurchase agreements that are characterised by low credit risk and low transaction costs. Information systems that enable efficient completion of transactions are also preconditions for an effective secondary market infrastructure.

3. INFORMATION SHARING

The Albanian legal framework makes a clear distinction between responsibilities and competences of MoF and BoA, to avoid any breach of either institution independence in the process of information sharing. Therefore, there are no explicit barriers in improving the flow of information between them. The information exchanged between the Bank of Albania and the Ministry of Finance thus far has been contoured in an agreement signed by the two institutions. It consists in providing on continuous basis the following information flows:

From the MoF to BoA:

- 1. Fiscal budget programming and the instruments that will be used to finance it as approved by the Parliament. Any case of change in the budget law should be reported.
- 2. Forecasts of each category of budget revenues and expenses reported on weekly basis.
- 3. A planned cash-flow of disbursements (principal and interests) of foreign debt reported in the beginning of the year.
- 4. Data on actual realized revenues and expenses (detailed for each category) compared to the forecasts made reported each end-month.
- 5. Forecasted revenues and expenses in line with the operative evidence prepared by the Bank of Albania.
- 6. Bulletin of Fiscal Statistics (monthly data) reported each quarter.
- 7. Cash-flow of foreign debt broken on yearly and monthly basis.
- 8. Other information on request.

From BoA to MoF:

- 1. Synchronized Report on the Amount of the Government Deposit Account reported each month.
- 2. Synchronized Report on the transactions settled with the special accounts of foreign financed projects –reported each month.
- Detailed daily evidence (aggregate or for each bank) of budgetary revenues, expenses and financing of budget deficit.
- 4. Historical data on Treasury Bill auctions. The information contains respective cash-flow and maturing TBills reported each quarter.
- 5. Lek Exchange Rate information- reported on a daily basis.

- 6. Data on loans and grants of BoA participation Reported each month.
- 7. Yearly and Quarterly Reports of the Bank of Albania.
- 8. Quarterly Balance of Payments.
- 9. Monthly Average of Exchange Rate of Lek against all the other currencies.

The process of information sharing is made easier if MoF and BoA not only understand each-others competences and responsibilities but also try and respect them over time. The above agreement about information sharing for instance, despite the initial good intentions has not been flawless. Information on Bank of Albania arrives with long delays or has not been provided at all. In order to avoid large decision-making mistakes the information should not only be reliable and in time but should also be updated regularly. It is important for the Bank of Albania and the Ministry of Finance to avoid situations of "surprise information" and consequently unexpected and undesired behaviour of the markets.

The scarcity of reliable data has direct negative implications on the soundness of analytical models results and analysis used for the purpose of the policy decision making. If we also take into account the lagged effects of both fiscal and monetary policies the timely information sharing becomes even more indispensable. The project proposed earlier in this paper for a joint economic analysis for growth projections and the consistency analysis (similar to that carried out by IMF missions) increases the pressure for a more consolidated information sharing system between the two institutions. If properly put in place this project could serve as a bridge to ensure the coordination between monetary and fiscal policy at a more advanced technical level. While the two institutions should warn each other in advance about important changes they intend to make in the near future - to put each other in a better position to get a more comprehensive picture of the implications of their operations including the potential counteractions - it goes without saying that under no circumstances this information sharing and cooperation imply obtaining a prior approval on policy decision making.

The process of information sharing should not be limited merely during periods of monetary and fiscal policy preparation but need to be extended also on daily basis as monetary and fiscal policies get implemented. A successful implementation of the monetary and fiscal policy will require the Bank of Albania and the Ministry of Finance to share information for liquidity management and for public debt management. From the Bank of Albania perspective this is relevant since the Ministry of Finance holds its main account with the Bank of Albania and moreover it is one of the most influential players in the security market. This process will help the Bank of Albania to better forecast the liquidity needs of banking system which in return, will enhance the efficiency of the open market operations. Looking from the Ministry of Finance perspective the constant information sharing will enable it to better manage the debt issued and economise on its costs.

4. CONCLUSIONS

The coordination between the Government (the Ministry of Finance) and the Central Bank constitutes an important necessary condition for a successful implementation of inflation targeting. There may be different views on the form and formal commitments required to establish the coordination. Notwithstanding the formula behind the coordination the Central Bank and the Ministry of Finance should agree on following certain rules to preserve macroeconomic stability. Here, we propose to materialise an agreement in the form of a memorandum of understanding which would be the outcome of a consistent macroeconomic analysis that could be produced in concert. Despite their distinct objectives, the Bank of Albania and the Ministry of Finance have ample space for cooperation in many areas of common interest. Both institutions can gain a lot by enhancing information sharing putting little effort. Joining forces to accelerate the development of securities markets constitutes another area that would benefit both institutions.

* Erjon Luçi, Director, Research Department, Bank of Albania, Marian Gjermeni, Director, Monetary Operations Department, Bank of Albania. Anjeza Gazidede, Specialist, Monetary Operations Department, Bank of Albania. The views expressed in this paper are those of the authors and do not necessarily represent those of the Bank of Albania.

¹ An alternative to MMS would be to incorporate the coordination elements in the monetary policy framework as in the New Framework of Monetary Policy of National Bank of Serbia (2006) after consultations with the government.

² Up to the last year, the main debt instruments in the market were 3, 6 and 12 months treasury bills. The debt stock in treasury bills was annually increased.

Alesina, A. and Tabellini, G. (1987) "Rules versus discretion with noncoordinated monetary and fiscal policies", Economic Inquiry, Vol. 25, 619-630

Blake, A. P. and Weale, M. (1998) "Cost of separating budgetary policy from control of inflation: a neglected aspect of central bank independence" Oxford Economic Papers, Vol. 50, No. 3, July, 449

Goodhart, C. A. E. (1995) "Central Bank Independence", in his collection of essays The Central bank and the Financial System, Basingstoke: Macmillan.

Kydland, F. and Prescott, E. (1977) "Rules Rather than Discretion: The Inconsistency of Optimal Plans" Journal of Political Economy, Vol. 85, 473-490

Lohman, S. (1992) "Optimal commitment in monetary policy: credibility versus flexibility" American Economic Review, Vol. 82, 273-286

Lybek, T. (1999) "Central Bank Autonomy, and Inflation and Output Performance in the Baltic States, Russia, and Other Countries of the Former Soviet Union, 1995-97" IMF working papers WP/99/4, Washington DC. January.

McCallum, B. T. (1995) "Two Fallacies Concerning Central Bank Independence" American Economic Review Papers and Proceedings, Vol. 85, No. 2, May.

Moser-Boehm, P. (2006) "The relationship between the central bank and the government", Central Banks and the challenge of development, A special meeting of governors held at the BIS, Basel, 14-15 March 2006.

Parkin, M. (1987) "Domestic Monetary Institutions and Deficits" in J. Buchanan, C. Rowley, and R. Tollinson (eds), Deficits, Blackwell, Oxford.

Rogoff, K. (1985) "The Optimal Degree of Commitment to an Intermediate Monetary Target" Quarterly Journal of Economics, Vol. 100, 1169-1190

Sargent, T. and Wallace, N. (1981) "Some unpleasant monetarist arithmetic", Federal Reserve Bank of Minneapolis Quarterly Review, 5, 1-17 Svensson, L. (1997) "Optimal Inflation Targets, 'Conservative' Central Banks, and Linear Inflation Contracts" The American Economic Review, Vol. 87, No. 1, March.

Tuladhar, A. (2005) "Governance Structure and Decision Making Roles in Inflation Targeting Central Banks", IMF Working Paper, WP/05/183, IMF Washington D.C.

Walsh, C. E. (1995) "Optimal Contracts for Central Bankers" The American Economic Review, Vol. 85, No. 1, March, 150-167.

COMMENTS ON: COORDINATION BETWEEN THE CENTRAL BANK AND THE MINISTRY OF FINANCE UNDER INFLATION TARGETING

Lucia Quaglia*

The paper by Luci, Gjermeni and Gazidede discusses the institutional interaction between the Central Bank of Albania and the Ministry of Finance, within the framework of inflation targeting by the Central Bank. Two main interrelated issues are covered in the paper, namely the coordination between monetary policy and fiscal policy; and public debt management, reforming the government bonds market. The paper argues that the coordination between monetary policy and fiscal policy is to be ensured by: i) holding regular meetings at the level of senior policy makers (Governor and Finance Minister); ii) signing a memorandum of understanding between the Central Bank and the Finance Ministry; iii) avoiding monetary financing, but providing for short term access to liquidity; iv) systematic information sharing between the monetary and fiscal authorities, that is, the Central Bank and the Ministry of Finance. In turn, the eventuality of monetary financing is to be prevented by efficient public debt management, facilitated by reforming the market for government bonds. A series of concrete steps to upgrade such a market are outlined in the paper.

My remarks will focus on the first set of issues concerning macroeconomic coordination, roughly following the order in which they are presented in the paper. Deliberately, I have taken a comparative perspective because there might be useful lessons to be learned from the experience of other European countries. For the same reason, is potential lesson-drawing, a longitudinal or historical perspective is also taken, by looking at three countries before and after major reforms of their Central Banks. and the establishment of Economic and Monetary Union (EMU). The countries mentioned in my remarks are: Germany, the UK and Italy. The Bundesbank, which provided the institutional and policy templates for the European Central Bank (ECB), is usually reaarded as a successful of model of Central Bank. The Bank of England, which underwent a major reform in 1997, is regarded as a potential alternative model to the ECB. The Bank of Italy provides a third model of central banking. Finally, I will conclude by highlighting a couple of issues that are not mentioned in the paper, but that might be relevant to the topic under discussion and, more broadly, to the reform of the macroeconomic policy framework in Albania.

COORDINATION OF MONETARY POLICY AND FISCAL POLICY

As argued by Luci et al., the coordination between monetary policy and fiscal policy is a core component of the national macroeconomic policy framework. In this respect, two main issues need to be considered and reconciled: the necessity to secure effective coordination (and especially to avoid 'uncooperative games') between the monetary and the fiscal authorities and the need to safeguard (and to be seen by the market as safeguarding) Central Bank independence. The second issue is crucial for Central Banks whose independence is relatively recent, or which have undertaken major reforms. It also affects the macroeconomic credibility of the Central Bank, which is why it is important to make clear that such coordination does not impinge upon the independence of the Central Bank and its inflation targeting. It is interesting to note that the ECB, for example, uses the terminology of macroeconomic 'dialogue', rejecting the word 'coordination' or 'cooperation'.

An interesting work that presents a comparative overview of institutions and procedures concerning monetary and fiscal

policy cooperation in Europe, before and after EMU, is the article by Bini Smaahi and Casini (2000). The first part of the article reviews the procedures for macroeconomic policy cooperation in 13 of the 15 (old) EU member states, before the establishment of EMU. The article reports that all the 13 national Central Banks had regular discussions or exchanges of views with the finance ministries concerning domestic and international economic conditions. The vast majority of these discussions took place through informal channels, though approximately one third of the exchanges took place through official channels. The majority of the exchanges of views took place at the level of senior officials. even though one quart of the discussions took place at the top level of both institutions (minister and governor) and amongst staff, respectively. The picture that emerges is one of intense and frequent dialogue, often informal and at a high level, on a broad range of issues. With reference to the Albanian case, this suggests that besides formal fora and tools of coordination, such as memoranda of understanding and official meetings between the Governor and the Finance Minister, informal channels to exchange views at the level of senior officials and staff could be explored with a view to facilitate macroeconomic cooperation.

THE FUNCTION OF THE MEMORANDA OF UNDERSTANDING

The role played by so-called 'external constraints' (ie rules or binding agreements imposed or overseen by international organisations) is sometimes instrumental in facilitating macroeconomic policy coordination at the domestic level, especially whenever domestic macroeconomic discipline does not rest on a consolidated tradition, the Central Bank framework has been reformed, and policy capacity is in the process of being developed. As argued by Luçi *et al.* the replacement of the Memorandum of Economic and Financial Policies (MEFP) signed by the Albanian Government and the Central Bank as part of IMF programmes with a Memorandum of Macroeconomic Stability seems to be a suitable way to ensure (or at least to facilitate) the coordination between monetary and fiscal policies. Although more information concerning the specific content and format of the old memo and the proposed new memo would be needed, it seems that the main difference between them is that the second memorandum will not be uphold by an 'external constraint' (ie specific rules or economic programmes sponsored by international organisations). It would be worth exploring the specific role, if any, that could be played by the EU, or other international organisations with reference to the new memorandum, however bearing in mind that there are 'political' limits to what could be achieved by relying excessively on external pressure, which might elicit domestic political opposition. From a legal point of view, there is the question of which institution(s) would be in charge of enforcing the memorandum, to be precise to decide whether the agreement has been breached and which measures should be taken as a consequence.

MONETARY FINANCING AND PROVISIONS FOR SHORT TERM LIQUIDITY

Provisions concerning the credit facilities of the finance ministry at the Central Bank varied across Europe before the establishment of EMU. It should also be noted that legal arrangements were sometimes different from what happened in practice. In Germany, direct credits of the Bundesbank to the federal state and state budgets were restricted by the Bundesbank Act to emergency measures in order to solve short-term liquidity problems, and they had maximum ceilings. These credit facilities were abolished in 1994 to adapt the Central Bank legislation to the provisions of the Treaty on European Union (TEU).

In the UK, before the 1997 reform of the Bank of England, legal provisions did not rule out monetary financing. Article 104 of the Treaty on European Union (TEU; the Maastricht treaty) signed in 1992 prohibits government borrowing from the Central Bank, although the UK is exempt so long as it remains a non-member of EMU. The Treasury has had access to what is known as a Ways and Means Facility, which is held at the Bank. Since the reform in 1997 the facility has been frozen at just over £13bn, as agreed between the Bank of England and the Treasury. In practice, monetary financing in the UK took place in the 1970s but ceased in the late 1980s, partly because the public-sector borrowing requirement (PSBR) became positive. In the 1990s the PSBR was at times in deficit, but with the exception of 1992 these deficits were never very high.

In Italy, after the so-called 'divorce' between the Bank of Italy and the Treasury, the Central Bank was freed from the obligation to buy all the Treasury bills that remained unsold at auction. However, until 1993, the Treasury had an overdraft facility at the Bank of Italy, on which it could withdraw up to 14 per cent of the annual planned public expenditure. In 1993, in order to comply with the TEU, such overdraft facility was transformed into an interest-bearing deposit that must always be in credit. In practice, it should be noted that after the divorce in 1981, the Bank continued to provide some form of support for its 'divorced partner' by buying a large share of the public debt. After all, the options were either to monetise there and then or let the crisis break out with unpredictable effects¹. Similarly, even before the formal change in 1993, net subscription by the Bank of Italy of Treasury bills decreased over the 1980s and became negative in the 1990s, as a consequence of the measures that enhanced the market for public bonds and made it more efficient. This reform increased the de facto economic independence of the Central Bank, preceding the change of formal rules (legislation).

These examples highlight that it is important to distinguish between the legal provisions and the actual behaviour concerning monetary financing. The development of an efficient market for the public debt would contribute to preventing the need for monetary financing, as argued by Luçi *et al.* and supported by evidence drawn from the Italian case in the 1980s.

INSTITUTIONAL INNOVATIONS CONCERNING DEBT MANAGEMENT

As part of the discussion concerning the upgrading of the management of the public debt, the introduction of debt agencies in some countries represent an interesting institutional innovation, which might be considered for Albania. Before the 1997 reform of the Bank of England, the Central Bank was involved in the management of the public debt and the issuing of new bills. In 1997 the function of debt management on behalf of the government was transferred to the Debt Management Office, an executive agency of the Treasury. Similarly, before the 2002 reform of the Bundesbank, the Central Bank managed the government account and the public debt. This function was transferred to a separate agency following the 2002 reform. In the 1990, Italy also set up a debt agency.

INFORMATION SHARING AND OTHER CHANNELS

The paper under review highlights the importance of accurate information, and consistent data to be jointly collected and elaborated by the Central Bank and the Ministry of Finance. Besides improving data reliability, this would also have the advantage of increasing informal contacts and facilitating informal coordination between the monetary and fiscal authorities. Other additional ways through which such exchange could be promoted is by organising joint research training activities, projects and conferences, and by exchanging personnel.

THE BROADER CONTEXT

The coordination between the Central Bank and the finance ministry, and more generally the interaction between these two institutions need to be contexualised within the broader national institutional framework in which they take place, hence it would be useful to have more information concerning the Albanian case. Moreover, there are a couple of issues that are not touched upon in the paper under review but that might be somewhat related to the topic under discussion. Amongst these: the role of the Finance Ministry and more generally the government in appointing the members of the governance body/ies of the Central Bank and the members of the policy making body/ies; the respective role of the Central Bank and the finance ministry concerning financial services (or more precisely banking) regulation and supervision; arrangements concerning the independence and accountability of the Central Bank.

CONCLUSION

The paper under review provides a well thought through discussion of the coordination between the Central Bank and the Ministry of Finance within the context of inflation taraeting by the Albanian Central Bank. It also puts forward some concrete proposals for upgrading the market in government bonds and managing the public debt. As a political scientist, I would sum up my comments under three main headings: i) the potential discrepancy between legal provisions and de facto economic behaviour (ie economic policy in practice) and the risk of 'uncooperative games'; ii) the utility but also the limitation of 'external constraints' of various forms in facilitating macroeconomic policy coordination; iii) the need to situate the coordination between monetary policy and fiscal policy within the broader national institutional framework in which such interaction takes place. Hence, for example, by tying in this discussion to a broader set of issues that concern the interaction between the Central Bank and the finance ministry (and the political authorities more generally).

NOTES

* Lucia Quaglia, University of Sussex.

¹ For example, in 1982 the Bank followed this course of action and refused to buy a large share of the bonds that the Treasury had not managed to place in the market. The Treasury withdrew the maximum amount of 14 per cent on the account it had at the Bank of Italy and, needing more funding, asked the parliament to sanction the extension of the overdraft facility. The overdraft was granted immediately, because the threat of a fiscal crisis was too destructive to contemplate.
REFERENCES

Bini-Smaghi, L. and Casini, C. (2000) 'Monetary and fiscal policy co-operation: Institutions and procedures in EMU', Journal of Common Market Studies, 38, 3: 375-391.

LEGAL ISSUES FOR THE IMPLEMENTATION OF INFLATION TARGETING IN ALBANIA

Toni Gogu Elis Tarelli*

ABSTRACT

In this paper we investigate whether the existing legislative framework provides for some of the necessary conditions to successfully implement an inflation targeting regime. We conclude that although there is place for changes to the legal framework to improve the environment for implementing inflation targeting, much can be done under the current framework.

I. INTRODUCTION

The examples drawn from the experience of several inflation targeting central banks point to several prerequisites for a successful adoption of an inflation targeting framework. We try to address some of these prerequisites in this paper.

1. ADOPTION AND IMPLEMENTATION OF MONETARY POLICY

The Bank of Albania ("BoA") is the exclusive institution in the Republic of Albania ("RoA") vested with the authority and responsibility to formulate, adopt and implement the monetary policy of the RoA. Such authority and responsibility are entrusted to the BoA by the Constitution of the RoA and the Law "On the Bank of Albania" ("BoA Law").

Article 161, para.2 of the Constitution of RoA foresees inter alia the exclusive right and authority of the BoA to implement independently the monetary policy of RoA.

Further, in the same vein with the Constitution, article 3, para.4, lit (a) of the BoA Law lists as one of the main competences of BoA the formulation, adoption and implementation of the monetary policy. The discussion about the competent body with the BoA entrusted practically with the responsibility of formulation and adoption of the monetary policy is elaborated in section 4 of this paper.

The implementation of the monetary policy is not an end into itself, but it is rather conducted for the purpose of realizing the BoA's primary objective.

The definition of the primary objective of the BoA has been left to the BoA Law, where in article 3, para.1 it states that the primary objective of the BoA is "to achieve and maintain price stability".

Under the current legislative framework, to achieve its primary objective, BoA has target autonomy¹. The primary objective of the BoA is defined in its organic law, and it is the BoA that, in practice, determines the target.

Further, the BoA Law gives the BoA also instrument autonomy. Article 3, para.4, lit (3) of the BoA Law states that BoA may use, independently, the monetary policy instruments for achieving its primary objective and monetary policy objectives. This provision gives to BoA the autonomy and authority to implement the monetary policy in the way which it best serves to the achievement of the primary objective.

Considering the legal provisions discussed above, within the existing legislative framework, we believe the BoA is equipped with the necessary authority to conduct independently the monetary policy it defines, with the purpose to achieve its primary objective under an inflation targeting regime.

With respect to the quantitative definition of price stability, we observe that while the BoA Law establishes the primary objective of the BoA, it does not give a precise definition of what is meant by price stability.

Nevertheless, the definition of price stability by the BoA shall quantify BoA's understanding of the primary objective and shall match the demand for low inflation by the public.

From a legal point of view, it would be impracticable to state a specific numerical inflation target in the organic law of the Central Bank, as any change of the numerical inflation target would require a change of the law. This is unusual also for the laws on central banks of neighbouring and other inflation targeting European countries.

It is common for such numerical inflation target to be adopted by the decision-making bodies of the Central Bank, as is the case with the ECB, where the quantitative definition of price stability is adopted by the Governing Council of the ECB through its decisions.²

The authority of the decision-making body of the Central Bank to quantify price stability derives from the responsibility as mandated by the law, in our case the BoA Law, to achieve price stability.

2. PRIORITY OF OBJECTIVES UNDER AN IT REGIME

The BoA Law explicitly states in article 3, para.1 that the primary objective of the BoA is "to achieve and maintain price stability". Paragraphs 2, 3 and 4 introduce several subsidiary objectives and tasks of the BoA, were sometimes, a subsidiary objective is also quoted as a task (e.g. promotion and support of the payment systems (para.2) and promotion of the smooth functioning of the payment systems (para.4 (dh)).

Whereas the primary objective of the BoA in the BoA Law is, in our view, clearly defined, the subsidiary objectives need further clarity and focus.

Therefore, article 3 of the BoA Law could be reformulated to introduce clearly defined (and prioritized) subsidiary objective(s) of the BoA, which may include also fostering a sound, stable and efficient market-based financial system as mutually consistent with the primary objective, or support of general economic policies of the Government³. The subsidiary objective(s) shall be accorded a supplementary role so as to minimize potential conflicts in the pursuit of price stability.

From a quick view of laws of central banks in neighbouring countries⁴, one could see that there is no clear – cut rule as to how many subsidiary objectives should a law stipulate, although one or two seem to be a norm. We believe that a small number of subsidiary objectives would help the Central Bank focus when carrying out its responsibilities and avoid collision or conflicting objectives. However, in any case the subsidiary objectives should be pursued without prejudice or without jeopardizing the realization of the primary objective.

To conclude, we believe that BoA Law defines clearly and adequately the primary objective which the BoA shall pursue through the conduct of the monetary policy it chooses to adopt.

3. MONETIZATION OF BUDGET DEFICIT

The Manuscript suggests that one of the basic preconditions for the implementation of the IT regime in Albania is the prohibition of Central Bank credit to the government to monetize the budget deficit. However, experience in other countries⁵ has shown that an IT regime has been implemented despite continuation on the monetization of the budget deficit. Lybek (1998) suggests that if not prohibited, Central Bank credit to the government should be carefully limited to what is consistent with monetary policy objectives and targets. The BoA Law, as it currently stands, defines three conditions upon fulfilment of which, BoA may extend credit to the government. These conditions are explained below.

Current legislation regulating Central Bank credit to the Government

Paragraph 1 of article 4 and 30 of the BoA Law establishes as a general rule that unless otherwise explicitly foreseen in the law, BoA shall not extend any direct or indirect credit, loan or other financial contribution to the Government of Albania ("Government") or to other state organisations. Paragraph 2 of the same article, however, provides derogation from the general rule by stating that the BoA may extend credit or loans to the Government subject to certain conditions and limitations, i.e.:

- 1) within the limits stipulated in the BoA Law;
- 2) with a maturity no longer than six months;
- collateralized by debt securities bearing interest at market rates that have maturities corresponding to the credit or loan they secure, and that have been issued by the Government to the BoA.

With respect to the limit of credit or loan that the BoA may extend to the Government, it currently stands at a maximum level of 5 per cent of the annual average of the Government's revenue for the last three financial years, as stipulated in para.4 of article 30 of the BoA Law.

The wording of the provision of the BoA Law limiting credit to the government leads to the interpretation that, at no time shall the aggregate amount, i.e. disbursed and non-disbursed credit or loans, of Central Bank credit to government exceed the 5 per cent limit of the annual average of the last 3 years recurrent revenue, rather than the limit refers to an annual crediting of 5 per cent of average annual revenues.

The 5 per cent limit may be temporarily increased up to 8 per cent through a special decision of the BoA, only in exceptional

circumstances and provided that such increase would not jeopardize (contradict with) the primary objective of the BoA, i.e. achieving and maintaining price stability.

Further, the BoA Law foresees another situation when the limits set in article 30 with respect to the credit or loans extended to the Government may be waived. This is the case when the BoA may extend to the Government credit or loans, according to the term and conditions previously agreed by the concerned parties, for payments resulting from State's membership in international organizations. Nevertheless, such credits or loans shall be collateralized by Government securities, according to the terms and conditions mutually agreed.

With respect to the operations of the BoA in the government securities market, article 32 of the BoA Law states that the BoA may purchase or sell Government securities. However, purchases by the BoA for its own account of Government securities in open market operations or in the secondary market shall be treated as a BoA loan to the Government, and shall therefore be subject to the overall limits specified in article 30. BoA purchases of Government securities shall not be subject to the limits defined in article 30 when such purchases have been made in the secondary market and are consistent with the primary objective of the BoA, or such purchases have been made for the purpose of the investment for the pension fund of BoA staff.

The language used in all three articles, i.e. 30, 31 and 32, of BoA Law mentioned above, namely, "may extend", "may grant a waiver", "may purchase or sell", suggests that the extension of credits or loans by the BoA to the Government is not mandatory, but discretionary. That means that the BoA has the right to decide at its absolute discretion whether or not to extend credit or loans to the Government, when such credit or loans would not jeopardise or contradict with the primary objective of the monetary policy of the BoA, that of price stability.

As already described above, the Central Bank credit to the government, is in our case, at the Central Bank's discretion, is carefully limited in its amount and maturity and is at market rates and collateralized.

The discussion whether Central Bank credit to the government should be prohibited or limited as a precondition for implementing inflation targeting is not in the scope of this paper. This is a political decision and different financial and fiscal factors must be weighed. Besides, stakeholders should bear in mind that legislative procedures to amend laws regulating constitutional bodies, such as the BoA, are burdensome and lengthy.

If we look at the experience of neighbouring or other European countries with Central Bank credit to government, we observe that most of these countries, if not all, prohibit any kind of such credit, to the government or other public institutions.

Central banks of Member States to the European Union are prohibited by the Treaty establishing the EU to extend any overdraft or other type of credit facilities to Community institution or bodies, national governments and bodies, and to any institutions governed by public law. Any central bank joining the ESCB must adhere to this rule.

Any amendment to the BoA Law must be planned carefully due to the fact that according to the National Plan for the Implementation of the Stabilisation Association Agreement approved by the Albanian Government, amendments to the BoA Law are foreseen to be made at the latest by 2010. This document states that the BoA Law shall be fully harmonized with the Treaty Establishing the European Union and the Statutes of the European System of Central Banks, and amendments to the BoA law will include inter alia, especially prohibition of any kind of central bank overdraft or credit facilities to government.

To conclude, we believe that prohibition of Central Bank credit to the government is only a matter of time, as Albania is already in the process of approximating its legislation with that of the European Union.

4. MONETARY POLICY DECISION MAKING

Under existing legislative framework, the Supervisory Council ("SC") of the BoA is entrusted with the main responsibility to direct the BoA. Article 161 of the Constitution of RoA states that BoA shall be directed by a council, whereas article 42 of the BoA Law states that the SC is the highest decision-making and supervisory body of the BoA's policies, administration and operations. Article 43 assigns to BoA, inter alia, the power to adopt the monetary policy of the Republic of Albania, including the limits of open market operations by the BoA, the interest rates for deposits at the BoA and for discounts and loans by the BoA, and the reserves and levels of reserves that banks are required to maintain with the BoA. Practically, the BoA indirectly steers (orients) the interest rates for deposits held with the commercial banks by defining the interest rate of Repurchase (REPO) Agreements.

Article 43 specifies further other important responsibilities of the SC such as to adopt the exchange rate policy and the procedures for determining the exchange rates of the Albanian currency against other currencies.

As shown above, the current legislative framework, allocates the necessary powers and responsibilities to the current SC to direct, manage and administer the BoA, whose primary objective is that of price stability. Therefore, the SC, as the highest-decision making body of the BoA, has the powers and responsibility to adopt and conduct the monetary policy in the pursuit of the BoA's primary objective.

The establishment of a Monetary Policy Committee ("MPC") to be vested with the responsibility to make monetary policy decisions is not possible under the current legal framework, i.e. BoA Law.

An advisory MPC can be established under the existing legal framework. The Statute and Procedural Rules of the BoA state that the SC may establish committees and delegate them responsibilities with respect to the implementation of the adopted monetary policy. Such committees shall also assist the Administrators of the BoA during the performance of their duties.

Currently, a Committee on the Implementation of Monetary Policy has been established in the Bank of Albania, following the conclusions of the last year's Open Forum, to decide on monetary policy implementation in the financial markets through concrete operations. This committee is chaired by the Governor and is comprised of senior management staff responsible for monetary policy and management, as well as banking supervision. The committee has decision-making power to decide on interventions in money markets and internal markets of foreign exchange. Besides, this committee may also advise the SC on monetary policy issues, such as the interest rate.

5. FINANCIAL AUTONOMY AND STAFF REMUNERATION POLICIES OF BOA

Best practice with respect to financial conditions of central banks suggests that a reasonable degree of financial autonomy is essential for effective central bank policy autonomy. To preserve central bank autonomy, frequent budget appropriation procedures should be avoided (Lybek 1998).

In the same vein with best practice, the BoA Law has given to the SC the right and authority to decide on the BoA's budget.

The BoA Law also provides with respect to the remuneration policies of BoA by stating in article 45 that the SC decides on the remuneration of the Administrators⁶, members of the SC and the whole BoA staff. This is currently done through regulations approved by the SC.

However, Albanian Parliament recently passed a new law⁷, which stipulates that the wages of the Administrators, Inspector General, and of the members of the SC shall be regulated through law, whereas the wages of the other BoA staff shall be regulated by the BoA Law.

Although the existence in this law of two distinct paragraphs regulating respectively the wages and remuneration of the Administrators and the SC members, including those of the staff of the BoA is unclear, the organic law of the BoA is until now the only law that the Parliament has passed and that sets the procedure for the wages and remuneration in the BoA, is the organic law of the BoA⁸. This law is, according to article 81 of the Albanian Constitution, one of those legal acts in the "hierarchy" the passage of which requires qualified majority (3/5 of all the votes). Hence, if Albanian Parliament decides to pass a separate law with the purpose to regulate the wages and remuneration system for the Administrators, Inspector General and member of the SC of BoA, first it needs to abrogate article 45 of the BoA Law in order to avoid any potential legal inconsistencies.

Any future legislation regulating the wage and remuneration system for central bank staff, be they Administrators, members of governing bodies, senior management or other staff, should explicitly foresee that wages and salaries are not to be calculated with regard to the income and/or other revenues of the central bank in order to avoid distorted incentives⁹ and should be in line with best international practice¹⁰.

Further, when setting the wage and remuneration system for either senior management and other staff of a central bank, careful consideration should also be given to local wages and salaries standards in the commercial banking system to ensure that qualified personnel is retained within the central bank in the long-term.

6. RESPONSIBILITIES OF THE BOA FOR THE COMPILATION OF STATISTICS AND THE CREATION OF TRUST RELATIONS WITH REPORTING ENTITIES

The responsibilities of the BoA with respect to the compilation of statistics are found in the BoA Law and Law "On the Official Statistics", nr.9180, dated 5.2.2004. According to the BoA Law, the BoA compiles the balance of payments and is therefore responsible for the organisation and management of the statistical system for the balance of payments. Further, several articles¹¹ in the BoA Law indirectly assign to the BoA the task and responsibility to compile statistical information on the financial system in the country, especially on the banking system, due to the BoA role in licensing and supervising bank operations in Albania.

However, nor the BoA Law neither the Law "On the Official Statistics" define and stipulate the exclusive responsibility of the BoA in the compilation of the statistics on the balance of payments and financial system. Such lack of clarity may lead to an underestimation of the BoA's role in the overall statistical framework in the country.

To address this concern, amendments to the BoA Law shall be considered. In this line, a separate chapter on the BoA's responsibilities for the compilation of the statistics on the balance of payments and financial system¹² could be inserted in the BoA Law. This chapter should define BoA's role in the statistical framework in Albania and stipulate BoA's competences and responsibilities in compiling the above-mentioned statistics.

Apart from establishing the legal framework, a crucial ingredient to ensure continuous and reliable information from the reporting entities, necessary for the compilation of reliable and useful statistics, establishing a relationship of trust between the BoA and the reporting entities is equally important.

To establish this relationship of trust, the BoA must give to the reporting entities the guarantees that the information supplied by them for statistical reasons will be treated with utmost confidentiality and will not be misused or used for reasons other than statistical.

The Law "On the Official Statistics" establishes the principle of confidentiality as one of its core principles to ensure public confidence and quality of statistical information. Further, para.4 of article 15 of the Law "On the Official Statistics" states that all data and information collected by the statistical unit shall be used for statistical purposes only; they shall be published only in aggregated form and shall not be used to enforce an administrative decisions, including decision of the fiscal control or legal investigations.

However, para.2 of article 58 of the BoA Law seems to derogate from the established principle of confidentiality by allowing BoA staff to disclose non-public information or data gathered during the course of their duty in the BoA, to the tax authorities in Albania, or when such disclosure would serve to provide evidence of a legal act or of circumstances or conditions governing a legal act committed by a person requesting such disclosure in writing.

From this provision follows that data or information collected by the BoA for statistical purposes could be used for purposes other than statistical, which case could be considered as a breach of the confidentiality principle. A breach of the confidentiality principle would have negative repercussions with respect to the credibility of the BoA towards the reporting entities and lower public confidence and quality of statistical information.

To address this concern we suggest that article 58 of the BoA Law be amended so as to firmly establish the principle of confidentiality by removing from the law mandatory provisions requiring BoA's staff to disclose information or data collected for statistical or other purposes during the course of their duty in the BoA to other authorities or entities.

Further, future amendments to the current legislation on the statistics should also include changes in the Law "On the Official Statistics".

Article 12(d) of the Law "On the Official Statistics" assigns to the Director General of the INSTAT¹³, inter alia, the power to approve the appointment of the heads of the statistical department of each statistical unit. According to the Law "On the Official Statistics", a statistical unit is an entity, apart from INSTAT, authorized to compile and distribute statistics. This definition implies that the BoA is also a statistical unit.

The BoA Law is an organic law regulating the establishment, functioning and responsibilities of a constitutional entity, such as the Bank of Albania. This law assigns to the highest decisionmaking body of the BoA, i.e. to the Supervisory Council, the power to approve the appointment of heads of the BoA's departments.

In this consideration, article 12(d) of the Law "On the Official Statistics" contradicts article 43(h) of the BoA Law, and it should be reformulated to address the main concerns, i.e. that the approval of the appointee of the Supervisory Council for the Statistical Department of the BoA by the Director General of INSTAT would be interpreted as a violation of the institutional and organisational independence of a constitutional entity such as the Bank of Albania, whose establishment and functioning is regulated by the Constitution and by a separate law.

7. CONCLUSIONS

This paper has tried to identify and briefly analyse the existing legislative framework that provides for some of the preconditions for a successful implementation of a inflation targeting regime in Albania.

From the analysis we conclude that the BoA is fully authorized and equipped, by the Albanian Constitution and the BoA Law, with the necessary powers to formulate, adopt and implement independently the monetary policy in Albania.

The BoA has one clearly defined primary objective, i.e. "to achieve and maintain price stability", stipulated in its organic law. This provides the BoA with a sufficiently precise, yet flexible, primary objective. However, subsidiary objectives could be further focused and prioritized to introduce more clarity as to the subsidiary objectives that shall be pursued by the BoA without prejudice to the primary objective. With respect to the monetization of the budget deficit, the BoA Law carefully limits it by establishing several conditions, upon fulfilment of which, BoA may grant credit to the government.

Limitation of central bank credit to the government takes into consideration best international practice in this matter and it is made to what is consistent with monetary policy objectives and targets.

However, near future amendments to the BoA Law prohibiting monetization of budget deficit is only a matter of time because of Albania's governing bodies' efforts to fully harmonize its legislation with the Acquis Communautaire to fulfil Albania's obligations before joining the European Union.

We also concluded that the BoA Law provides for financial autonomy by excluding BoA from frequent budget approximation procedures, thus allowing BoA to adopt its own budget. Financial autonomy of BoA shall be further strengthened also with respect to wage and remuneration setting procedures for BoA staff, including the Administrators, Inspector General and members of BoA governing body.

Further, BoA's responsibility with respect to the compilation of statistics could be more clearly stipulated in the BoA Law and necessary amendments to existing legislation should be considered to strengthen BoA's capabilities in strengthening the trust relationship of BoA with reporting entities.

The conclusions listed above point out the need for changes in the legal framework regulating the organisation and functioning of the BoA. As already discussed above, the BoA Law will be amended at the latest by 2010, following the Government of Albania's obligations to meet legislative requirement before joining the European Union. Such amendments shall fully harmonize the BoA Law with the Acquis Communautaire and focus especially in prohibiting any kind of central bank's overdraft and credit facilities to the government, and strengthening central bank's independence. NOTES

* Toni Gogu, Head of the Legal Department of the Bank of Albania, Elis Tarelli is adviser to the Governor of the Bank of Albania, Mr. Ardian Fullani.

The opinions and suggestions presented in this paper are those of the authors of the paper only and do not represent an official approach of the Bank of Albania. The normal caveats apply.

¹ There is target autonomy when there is a clearly defined primary objective in the central bank law. See Lybek (1998)

² See the Press Release of 13 October 1998 – A stabilityoriented monetary policy strategy for ESCB where "price stability" is defined in the following way: "Price stability shall be defined as a year-on-year increase in the Harmonised Index of Consumer Prices for the euro area of below 2%" (www.ecb.int).

³ See article 2 of the Statute of the European Central Bank.

⁴ Law on the Croatian National Bank, Law on the National Bank of the Republic of Macedonia, Law on the National Bank of Greece.

⁵ Australia, Canada, Mexico (See A. Tuladhar, "Governance Structures and Decision-Making Roles in Inflation Targeting Central Banks", IMF WP/05/183, pg.16.)

⁶ According to article 41 of the BoA Law, the Administrators are the Governor and the two Deputy Governors.

⁷ Law no.9584, dated 17.7.2006 "On the Wage System of Constitutional Institutions".

⁸ Article 45 of the BoA Law.

⁹ "Elements of Central Bank Autonomy and Accountability", IMF MAE OP/98/01.

¹⁰ This principle is already established in article 56, para.2 of BoA Law.

¹¹ Articles 12, 22 and 71 of BoA Law.

¹² This chapter should potentially address also the relationship of the BoA with the newly established Authority of Financial Supervision, responsible for the supervision of the insurance, pension and investments funds, as well as securities market, with respect to the exchange of information also for statistical purposes.

¹³ Institute of Statistics (www.instat.gov.al).

Carare, Schaechter, Stone and Zelmer "Establishing Initial Conditions in Support of Inflation Targeting" IMF WP/02/102.

Hilbers, Paul "Interaction of Monetary and Fiscal Policies: Why Central Bankers Worry about Government Budgets" IMF Seminar on Current Developments in Monetary and Financial Law, Washington DC, May 2004.

Hilbers, Paul "Interaction of Monetary and Fiscal Policies: Why the Central Bankers Worry about Government Budgets", presented at an IMF Seminar on Current Developments in Monetary and Financial Law, Washington, D.C., May 2004.

IMF (1999), "Inflation Targeting in Practice: Strategic and Operational Issues and Application to Emerging Market Economies", edited by Blejer, Ize, Leone and Werlang.

IMF (2005) "Does Inflation Targeting Work in Emerging Markets", World Economic Outlook, September 2005, pp.161 - 186

IMF, "Inflation Targeting in Practice: Strategic and Operational Issues and Application to Emerging Market Economies", (edited by Blejer, Ize, Leone, and Werlang).

Lybek, Tonny "Elements of Central Bank Autonomy and Accountability" IMF MAE OP/98/01, February 1998.

Moser-Boehm, Paul "The Relationship between the Central Bank and the Government", presented at an special meeting of governors held at the BIS, Basel, 14-15 March 2006.

National Plan for the Implementation of the Stabilisation Association Agreement , Tirana, June 2006.

Schaechter, Stone and Zelmer "Adopting Inflation Targeting: Practical Issues for Emerging Markets Countries" IMF OP/00/202.

COMMENTS ON: LEGAL ISSUES FOR THE IMPLEMENTATION OF INFLATION TARGETING IN ALBANIA

Ronald Albers*

THE LEGAL FRAMEWORK FOR MONETARY POLICY

This contribution comments on the thoroughly written paper on legal issues presented by the Bank of Albania. The paper raises several issues that are familiar in a broader context and that are crucial to the proper functioning of monetary policy, not only under inflation targeting but for any monetary regime. It is an extensive catalogue both of legal progress and of some issues that still need to be resolved. The basis conclusion is that much can already be done under the existing legal framework to implement inflation targeting. To a considerable extent this indeed appears to be the case. It is clear that the Bank of Albania aims for high legal standards and attempts to benchmark against best practice found elsewhere in the world (notably in the EU, where EMU brought about an unprecedented amount of legal codification), which is commendable. At the same time, there is still a lot of leeway as regards the precise implementation – and rightly so. Experience in other countries has shown that inflation targeting can be successful in different legal and institutional settings. Even within the EU, sovereign Member States still have a lot of room to arrange the modalities of policy making within the limits set by the acquis. Hence, also across EU Member States a lot of differentiation still exists. For Albania, it means

that there is room to find an appropriate institutional and legal balance, acknowledging that there is scope to let it evolve over time as circumstances change.

All this notwithstanding, for a central bank to pursue its objectives there is a need to secure independence and to work within a well-functioning legal and institutional environment. as underlined by Servaas Deroose in last year's Open Forum¹. There is a fair consensus on what are key elements in this respect. Broadly speaking, one needs a set-up which safeguards central bank independence, protects monetary policy from political interference, prevents monetary financina, maintains credibility with financial markets and investors, and augrantees efficient external communication. As regards these cornerstones of sound policy it is good to be ambitious and to strife for the highest standard. To a large extent this holds regardless of the monetary policy framework. But for inflation targeting the need for such stringent rules should be obvious. Inflation targeting can work only if the central bank has credibility and if it has enough leeway to pursue the objective of price stability without undue outside interference. The reminder of this contribution will briefly touch upon a number of key issues which are addressed in the paper.

As regards central bank independence the authors correctly point out that the Bank of Albania has the authority, responsibility and possibility to independently formulate, adopt and implement monetary policy. The Bank of Albania also has the necessary instrument autonomy, for instance to define a numerical inflation target.

The paper does not explicitly address issues of personal independence and the interactions with the government. The EU Treaty does not prohibit an exchange of views between the central bank and the government. But the EU view on this tends to be quite restrictive. In all circumstances it should be clear that neither the bank nor any member of its decision-making body shall act under the government's instructions, or is perceived to do so. In view of this, board members of the central bank should of course be accountable, and sanctions should be imposed in case of misconduct, but there should be high barriers to removing them from office. Also, the rules of engagement with other public authorities are interpreted in such a way that information requirements assigned to a central bank may only be ex-post (information when the decision has been taken, not before) and that a right for any third body to be consulted ex ante on a central bank decision has always been considered incompatible with the EC Treaty.

The paper rightly proposes that the secondary objectives of the Bank of Albania should be more focused and made clearer, so as to reduce the risk of interference with the primary objective and to facilitate external communications. Most of these secondary objectives are indeed considered only as 'central bank tasks' by the EC Treaty.

The paper correctly identifies major incompatibilities with the basic principle of monetary financing prohibition. In my view, there is no room for complacency here. Monetary financing in any form should be clearly prohibited. Whether this is feasible in the near term is the subject of political negotiation, but these incompatibilities need to be removed as soon as possible in order to fully secure central bank independence, safeguard credibility, and remove the risk of distortions to the policy mix due to undisciplined public finances. In this connection, it seems appropriate to reiterate the plea for an effective and independently operating debt management agency. Whether or not this agency should operate under the responsibility of the Minister of Finance is an issue for further discussion. Such changes in the legal framework are needed not only to eliminate monetary financing, but also to ensure that liquidity provision to the advernment does not burden operations in carrying out forward looking monetary policy

It is noted that under the existing legal framework an advisory Monetary Policy Committee (MPC) may be established. This Committee can have responsibilities for the implementation of monetary policy but not for making monetary policy decisions. Such a set-up seems perfectly in order. To a large degree, it is a matter of choice whether one thinks an MPC is helpful to set up inflation targeting. As regards the possible role for an MPC, in practice it has been proven that different arrangements can work well, depending on local circumstances and preferences. At any rate, it is probably a good idea to have 'outsiders' in the MPC, to ensure openness and diversity of opinions.

The paper underlines that any future legislation regulating the wage and remuneration system for the Bank of Albania's staff or management (including for the members of the decision-making bodies) should be in line with best international practices. This is important in terms both of accountability and independence.

The authors rightly insist on the necessity to stipulate in the Bank of Albania Law the Bank of Albania's responsibility for statistical matters and highlight the principle of confidentiality for ensuring public confidence and quality of statistical information to be gathered by the Bank of Albania. I strongly support this line of reasoning. A strong statistical basis is a necessary condition for successful monetary policy. The requirements for inflation targeting are not fundamentally different in this respect than for any other monetary policy regime: good data are important to pursue appropriate policies. In order to achieve this, the central bank should be invested with the necessary legal powers. Against this background, there are good reasons to give Bank of Albania legal authority for making data provision enforceable and for imposing penalties for non-compliance. As a logical corollary, there is a strong case for an independent statistical agency with adequate resources.

Finally, from a broader perspective, the coordination of macroeconomic policies will become more important for Albania as integration with the rest of Europe progresses. This is not only true for the domestic consequences, but spillover effects will also increasingly affect other countries. It is beyond the scope of this contribution to dwell on this issue at length, but monetary policy is most effective when the policy mix is appropriate, in other words if macro-economic stability, which covers price stability and stable fiscal and external accounts, has been achieved. I am convinced that macro-economic coordination issues and the delineation of the legal position of the central bank will be crucial for the success of Albanian monetary policy in years to come. This goes beyond the central bank law and the legal framework for the central bank as such. For instance, fiscal discipline is a cornerstone of sound policies and to this end one needs strong fiscal institutions and a sound fiscal framework. But achieving an appropriate policy mix is above all a matter of establishing a healthy institutional balance between various policy makers. To this end, it is essential that all actors know how to play their respective roles in keeping not only with the letter but, above all, with the spirit of the law.

^{*} Ronald Albers, Directorate General for Economic and Financial Affairs of the European Commission.

The views expressed are those of the author and do not necessarily reflect those of DG Ecfin or the European Commission. Without implication, helpful suggestions by Baudouin Lamine are gratefully acknowledged.

¹ S. Deroose (2005), 'Comments with Particular Focus on Institutional Relations', Preconditions for Inflation Targeting in Albania, Bank of Albania, 51-66.

CLOSING SPEECH

Ardian Fullani*

Ladies and gentlemen,

I want to conclude this Round Table by thanking you all for your contributions. We are really happy that you came to Tirana for discussing the monetary policy strategy of the Bank of Albania. This Round Table on Inflation Targeting was an excellent followup of the Open Forum. At the Open Forum last year in December we globally discussed the many preconditions for Inflation Targeting. During these two days of the Round Table, yesterday and today, we went far deeper on these complex issues. These issues need to be solved before the Bank of Albania can put a fully-fledged Inflation Targeting regime into place.

At this Round Table we have discussed the progress that the Bank of Albania has been making during 2006. One of the discussed topics was the econometric modeling and forecasting. The Bank of Albania uses now a reliable analytical framework that provides information useful to the monetary policy decision making. Under Inflation Targeting more information would be needed about the expected inflation developments in the future.

As laid down in the central bank law, the primary objective of the Bank of Albania is to achieve and maintain price stability in Albania. For keeping prices stable we need to be able to forecast the development of prices in the future. Our current econometric models provide us information about these future developments. Our internal studies show now that the Bank of Albania is able to make reliable forecasts.

We also discussed the consequences of situations where the consumer price index increases, let us say, more than 3% at an annual basis. This may for instance happen due to higher electricity prices, or higher oil prices. These energy prices are a main share of our daily expenditures. Therefore, they are a main share of the total basket of consumer prices for the "average" Albanian household. However, the focus of our discussions was the analyses of the further impact on the Albanian macroeconomy.

Higher prices will lead to a lower purchasing power. Households will buy less in case of a price increase, under the condition of unchanged household income. Then, if many households in Albania start consuming less, the Albanian economic growth will suffer. The Albanian production will slow down due to the overall lower demand for goods and services.

This process can take some time. But, anyhow, each economist will agree that strong increases in prices are bad for the economy. A high inflation, that is another way of saying a strong increase in prices, will harm economic growth.

The Bank of Albania aims at an average increase of the consumer price index of 3%. The Bank of Albania will set the interest rate for keeping expected price increases to 3% plus or minus 1 percentage point. It has built a macro-econometric model with all these channels that transmit monetary policy in the Albanian economy. The main purpose of the model is to analyze the reaction of prices, private consumption and business investment and so on, in reaction to changes that may take place. We call these changes in analytical terms "shocks" to the economy.

Our macro-econometric model is promising. Very promising. But for building econometric models we need statistics. Albania has statistics, but we need better statistics. For the year to come, the Bank of Albania wants to improve the statistical framework. The Bank of Albania needs better statistics, I said. With "better" statistics I mean here "more" statistics, "reliable" statistics and "user-friendly" statistics.

We need to measure all macro-economic developments in the economy better. And we need to keep track of these developments. Our Albanian history is still short. We only have time series for about 15 years. In time we will logically have longer time series. Our time series need to become timely available and they should be fully understandable.

Inside the Bank of Albania we can work more on statistics. In the year 2007 the Bank of Albania will improve its own database on monetary and financial statistics, and on the balance of payment statistics. But, for other statistics we depend upon our national statistical office, INSTAT. We also depend on other institutions for providing us with relevant information.

Next to the broadening and deepening of the statistical framework the Bank of Albania will improve upon its communication with the public. We discussed during this Round Table the transparency of the Bank of Albania. We concluded that significant progress has been achieved.

But next to transparency, the Bank of Albania wants to improve upon the information that it provides to the public. The Bank of Albania aims at making monetary policy understandable to everybody. We know already that money matters. The more money we possess, the more we can buy, and the more our economy will grow. The more our economy grows, the more people can share. Poverty will be reduced. But what about monetary policy?

We all know that higher wages or lower prices are beneficial for our personal pockets. The higher the wages, or the lower the prices, the more we can buy. But for the Albanian economy as a whole, there is a flipside. This flipside is inflation.

More spending will lead to higher prices in the medium to long term. And these higher prices, I can also say "higher inflation", is damaging for the Albanian economic growth. For this reason the Bank of Albania safeguards price stability. Our main task is to keep prices stable. In order to do so, we set the main interest rate.

The Bank of Albania wants to communicate better on all these monetary policy issues. It wants to explain the monetary and financial benefits at the micro and at the macro level. It wants to explain better why it is aiming for an inflation rate of 3%. The communication strategy of the Bank of Albania is to explain the working of the monetary policy issues and its own tasks, to you all.

The understanding of the public is needed for a good conduct of Inflation Targeting. Credibility has to be gained. As said before, a solid statistical framework is also indispensable. Reliable statistics can tell us about the past and the present. On the basis of this, the Bank of Albania can use its econometric models to forecast the future. The Bank of Albania can conduct monetary policy, and can target inflation better, in case of better forecasts.

We can stress the preconditions. But the fulfillment of all preconditions for Inflation Targeting depends also on others in the Albanian economy. Under Inflation Targeting, the monetary policy aims at a precise inflation target in the medium term. The Bank of Albania can only reach this target in case the interest rate setting affects the deposits, credits, private consumption and business investment, GDP, like in a developed market economy. Only in this case can monetary policy be effective.

Therefore, some preconditions for putting fully-fledged Inflation Targeting in place can not be met ONLY by the Bank of Albania. They depend upon the development of the Albanian economy, they depend upon the provision of statistics by INSTAT and others, they depend upon the understanding of the public. They also depend upon other key players like the Ministry of Finance and they depend upon the efficient working of the financial markets. Other preconditions for Inflation Targeting can partly be met by the Bank of Albania.

The full implementation of Inflation Targeting can therefore take place ONLY conditionally.

One can compare this situation with the tailoring of a suit for a special occasion. Let me make this comparison.

One can find a good tailor and ask him to make a suit for a special occasion. All measures can be taken, such as the length of the arms and the length of the legs. The suitable materials can be found. One needs the appropriate fabric, in the appropriate color. Upon all these preconditions of (1) the good tailor (2) the precise measures (3) suitable materials, the tailor can start the tailoring of the suit.

But, there is still no guarantee that the suit will fit you perfect. Or, it may happen that you look appealing in the tailor-shop, but not at the day of the special occasion. For instance, the temperature may have fallen so that you need an additional coat, or even a different fabric. Or, the environment of the special occasion may make you look overdressed. You tried to make it perfect, but the environment is lagging behind. Factors that you could not influence yourself can make you look different from how you had wished to look with the new suit. Conclusion: The suit is not suitable, or better, the suit is not (yet) suitable.

For this reason we have to try the tailored suit regularly. All preconditions for Inflation Targeting need to be checked and re-assessed on a regular basis.

At this Round Table we discussed econometric modeling, statistics and communication, also the legal framework, the internal governance at the Bank of Albania and the arranged agreements with the Ministry of Finance and INSTAT. During this year we drafted the new Banking Law. This law increases customer protection, sets the legal grounds for credit information registry, introduces new rules for risk administration, bringing more confidence in the banking system as well. With the assistance of the IMF legal department we revised the agreement with the Ministry of Finance. These agreements were standardized to emphasize the role of the Bank of Albania as fiscal agent. Moreover these agreements aim at creating a cooperative and partnership environment. We remain committed to further increase cooperation with major governmental agencies to ease their proper understanding of monetary policy process, its implications and the need for harmonized and coordinated policies.

Concluding I would like to underline that we are carefully evaluating the degree to which these preconditions are met before shifting to fully fledged inflation targeting in the medium run. Such strategy will further increase the effectiveness of the monetary policy in Albania further consolidating the price stability and contributing to sustainable economic growth. We will re-assess all preconditions regularly through these types of meetings with foreign professionals. In the meantime we are establishing a professional dialog among central bank, INSTAT, Ministry of Finance and other government institutions.

Once more, ladies and gentlemen, I thank you very much for your contributions. I wish you a safe return back to your home countries.

^{*}Ardian Fullani, Governor of the Bank of Albania.

Published by the Bank of Albania Sheshi "Skënderbej", Nr.1, Tirana Tel.: 355-4-222230; 235568; 235569 Fax.: 355-4-223558 public@bankofalbania.org

Printed in the Printing House of the Bank of Albania. Printed in 800 copies