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Inflation, exchange rates and the role of monetary policy in Albania

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Abstract

This paper examines monetary policy in Albania during the transition period. Various channels through which monetary policy can affect prices and output are identified and their relative importance is assessed. Estimates from a vector autoregression model (VAR) of key macroeconomic variables demonstrate the weak link between money supply and inflation up to mid-2000. However, the move during 2000 from direct to indirect instruments of monetary control has been associated with greater predictability of the transmission link from money supply to inflation. The paper concludes that a move to formal inflation targeting could help promote the transparency and credibility of monetary policy, but that such a move should be introduced only when the country is ready for it.

Keywords: monetary policy, inflation, Albania

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1. INTRODUCTION

The performance of the Albanian economy throughout the transition period has pleasantly surprised many people.¹ Starting from a very low base in 1991-92, Albania has quickly moved to high GDP growth and falling inflation, in conjunction with serious efforts towards market reforms. These achievements however were jeopardised, but not permanently reversed, by a period of turmoil and near-anarchy in early 1997. During this time, several large pyramid schemes, into which much of the population had put their savings, collapsed.² Since then, the Albanian economy has again enjoyed high annual growth rates and low inflation. This combination has been achieved in an environment where financial sector development is still at an early stage and informal markets are flourishing. Therefore, the role of monetary policy in influencing inflation and growth is inherently limited. Nevertheless, increasing attention is being paid in Albania to the role of monetary policy, and especially to the costs and benefits of introducing new instruments and of moving to more explicit inflation targeting.

This paper has three main purposes. The first is to assess monetary policy in Albania during transition and to determine the extent to which the familiar transmission mechanisms from nominal to real variables have worked in this period. The second is to examine systematically, using time-series econometric techniques, the interactions between several key variables, and to identify the effect indirect instruments of monetary control has had on these interactions. The third is to assess whether a move to inflation targeting in Albania is either feasible or desirable.

Section 2 of the paper examines the relevance of four different channels through which changes in nominal variables can affect the real economy: interest rates; exchange rates; credit rationing; and inflation expectations. The influence of some of these channels on prices and output has been limited. The main reason for this is that financial institutions in Albania are still at an early stage of development and currently do not play the role that they do in advanced Western economies. Indeed from 1991 onwards, there has only been a weak correlation, or none at all, between monetary aggregates and either inflation or output. Interestingly, however, the correlation between money supply and inflation has been much higher from 2000, when the Central Bank switched from direct to indirect instruments of monetary control. Exchange rate stability and price stability continue to be closely related, suggesting that the exchange rate remains a key indicator for inflationary expectations.

Section 3 explores the correlations among several variables – money supply, inflation, exchange rate, trade balance and migrants' remittances – by estimating a vector autoregression model (VAR). Using the results, we are able to evaluate how remittances stabilise the exchange rate, and inflation in Albania.³ They also help to quantify the extent to which shocks to money supply can explain the variance in inflation after mid-2000, when monetary policy shifted from direct to indirect instruments.

Section 4 concludes the paper with a brief discussion of the merits of adopting formal inflation targeting. We argue that such a move could help promote transparency and credibility of monetary policy, in an environment where financial institutions are becoming more sophisticated. Nevertheless, there are considerable obstacles to introducing this policy, not least the lack of reliable statistics and information on current indicators.

¹ Aspects of the Albanian economy during transition are discussed in various publications, including Mançellari et al. (1996), Vaughan-Whitehead (1999), Clunies-Ross and Sudar (1999, eds.) and in the annual EBRD *Transition Report* (various issues).

² The pyramid scheme crisis and its implications for the Albanian economy are discussed in Jarvis (1998) and Kovrilas (1999).

³ Previous papers that explore this link in Albania are Haderi et al. (1999) and Muço et al. (1999).

2. MONETARY POLICY IN ALBANIA

2.1 BACKGROUND

The fall of communism in Albania occurred in late-1990 and early-1991. It was followed by a year of economic collapse, social disorder and widespread emigration. The turnaround began in 1992 when stabilisation measures were introduced through a one-year reform programme. Under this programme, annual inflation was to be reduced to below 20 per cent. (At one point in autumn 1992, inflation was over 300 per cent.) Money growth was to be the principal nominal anchor of the programme. This would be supported by a fiscal policy which eliminated monetary deficit financing by mid-1993 and by a tight credit policy. A two-tier banking system was established in April 1992.

Under this stabilisation programme, which was supported by the International Monetary Fund (IMF) and other international institutions, monetary policy was based on direct instruments of monetary control. This decision was dictated by the poor state of the banking system, the external debt situation and the need to finance the large budget deficit. During the first half of the 1990s, the banking system was dominated by three state-owned banks which quickly accumulated substantial debt problems. Eventually, one of these banks (the Rural Commercial Bank) was liquidated in January 1998 and a second one (the National Commercial Bank) was privatised to foreign investors in 2000. Furthermore, the last and largest state-owned bank, the Savings Bank, was privatised to Raiffeisen Bank of Austria in late 2003. This development is expected to provide a major boost to lending activities and financial intermediation, as the Savings Bank, the only bank in Albania with comprehensive national coverage, was not allowed to lend to the private sector during the process of privatisation.

Meanwhile, non-bank financial institutions have a limited, though growing, influence in Albania. Micro-credits are increasingly being provided by savings and credit agencies (SCAs) and by end-2002 there were 109 SCAs operating throughout the country. This is compared to only 36 at end-2000.⁴ The insurance market is still dominated by the state but the largest insurance company, INSIG, is currently undergoing privatisation, with the support of the EBRD and the International Finance Corporation (IFC).

A stock market was established in May 1996 but only minimal trading (Treasury bills and privatisation vouchers) took place and it was closed temporarily in August 2001. The stock exchange was spun off from the Central Bank in March 2002 as a joint stock company under the Finance Ministry. It received a licence to start operating as a capital market of corporate stocks from the Securities Commission in July 2003. The first securities transactions on the stock market are expected to take place in 2004.

A bond and Treasury bill market in Albania started to emerge in 1995 and this development has helped contribute to public debt management and monetary policy. However, most Treasury bills (about 80 per cent of the total) are held by the Savings Bank, which distorts the market as this bank carries out most of the government's banking service needs. But, as the Savings Bank has now been privatised, it may in future be less willing to carry out the government's wishes.

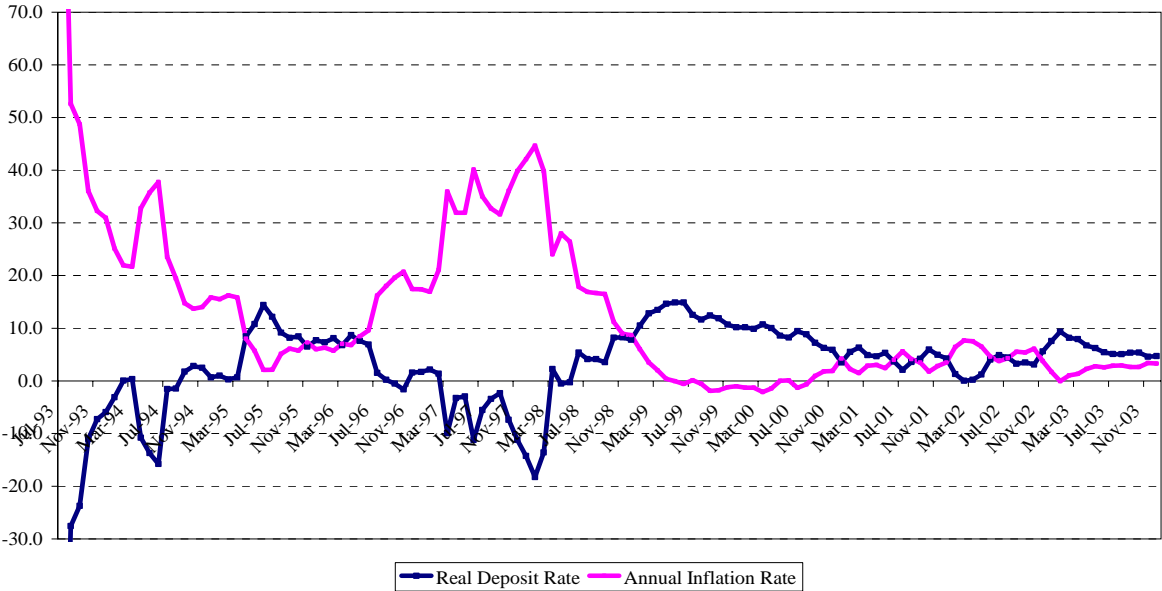
At the beginning of 1996, some licenses on private banking activity were issued to several foreign banks, paving the way for a real market in that field. Nevertheless, the Bank of Albania continued to impose ceilings on deposit rates offered by state-owned banks. Only recently has the consolidation of the banking system allowed indirect instruments of monetary control, including the establishment of required reserves, a refinancing window and a liquidity requirement, to replace direct instruments. New private banks have played a key role in

⁴ This information is contained in the Bank of Albania Annual Report (various issues).

encouraging the use of indirect instruments of monetary control and inter-bank competition. For example, in July 2000 the Bank of Albania adopted multiple-price one-week repos of T-bills, followed by fixed-rate repos in April 2001. The T-bill market has expanded considerably since then.

The control of interest rates was an important part of Albanian stabilisation policy during the transition period. Real interest rates turned positive in the third-quarter of 1994 (see Chart 1) when inflation declined, however these rates remained under Central Bank control until the banking system began consolidating and monetary policy moved gradually towards the use of indirect instruments. The Bank of Albania started to eliminate direct control over interest rates at the beginning of 2000. Within a year, the controlled interest rates on 3-month, 6-month and 12-month deposits were removed and replaced with indirect instruments of monetary policy, including some of those described above. The effects of these changes are explored in detail below.

Chart 1: Real deposit rate and annual inflation



Source: Bank of Albania.

2.2 THE TRANSMISSION MECHANISM

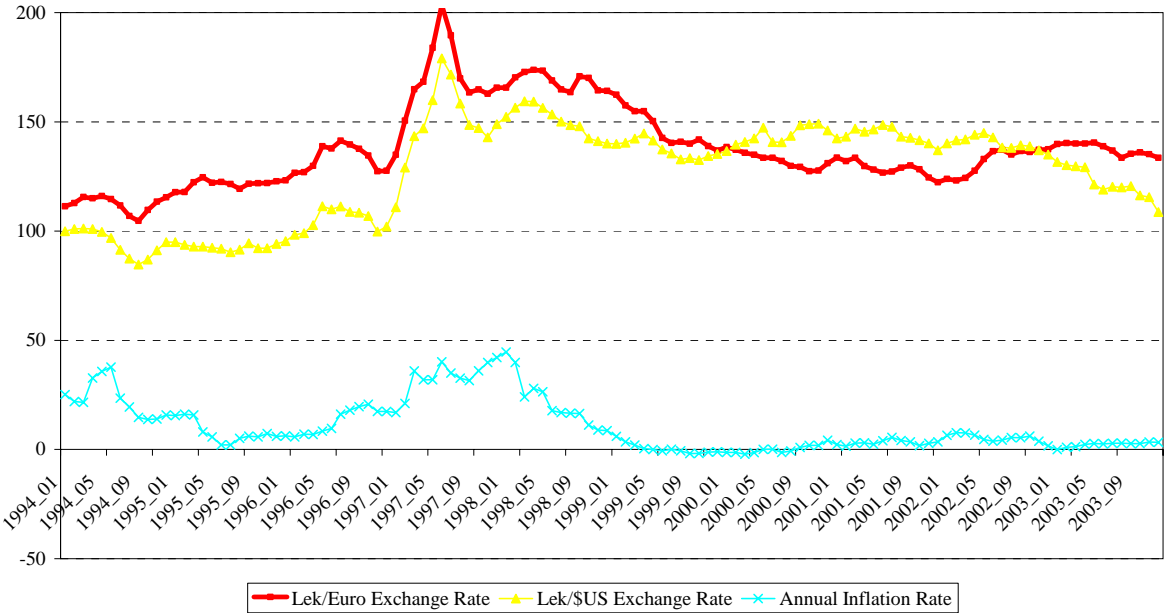
There are a number of ways in which monetary policy can affect the real economy. Four channels that operate in market economies are interest rates, credit ceilings, exchange rate, and inflation expectations. While this list is far from complete, in the case of Albania, other channels such as equity prices or the housing market are less relevant, at least for now. It should also be noted that the effects of these channels can overlap to some extent, as explained more fully below.

As noted earlier, interest rates were under the direct control of the Central Bank until August 2000. An important indirect effect of interest rates on inflation may have occurred through high deposit rates and the reduced demand for domestic currency deposits. These deposit rates also helped to maintain or even appreciate the value of the domestic currency, thereby reducing import costs and prices. However, even though banks typically had large excess

reserves, the Savings Bank was prohibited from new lending throughout this period. Therefore, the amount of new credit issued in the economy was small and the direct influence of interest rates and credit allocation decisions on savings-investment decisions, or more generally on the real economy, was correspondingly negligible.

The exchange rate channel is perhaps the most promising route for explaining inflationary developments in Albania. Exchange rate stability has been aided by the substantial inflows of remittances throughout the transition period.⁵ As Chart 2 shows, there is a clear and strong link between exchange rate stability and inflation. It should also be noted that over the past couple of years, the euro has replaced the dollar as the reference currency for most Albanians.

Chart 2: Correlations between annual inflation and the exchange rate



Source: Bank of Albania.

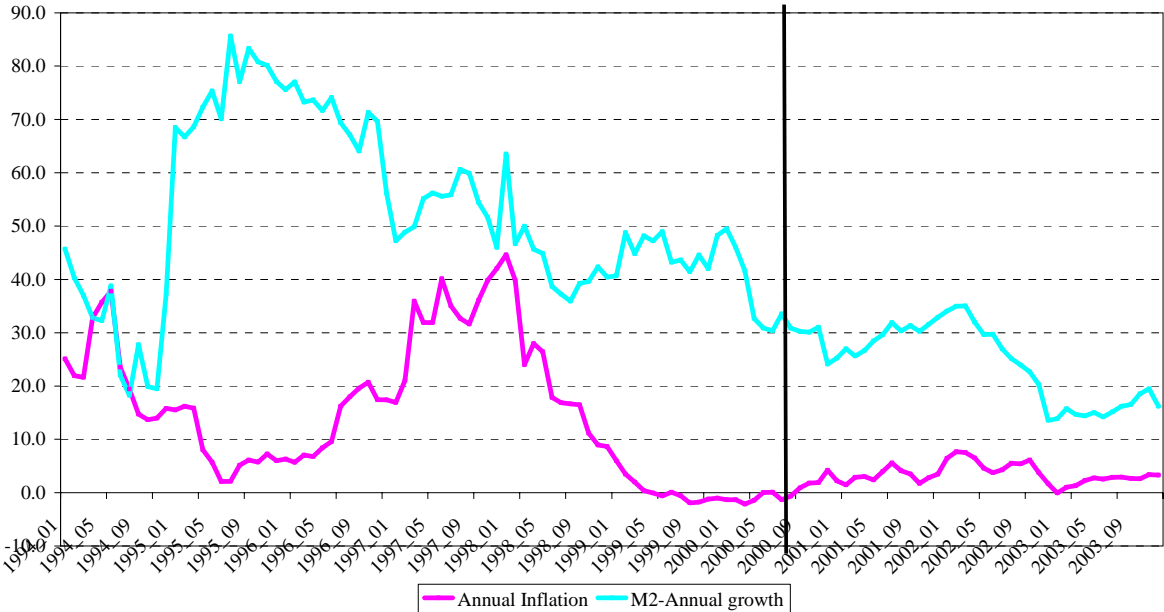
This link between the two variables is seen most clearly during the anarchic period of early 1997, when both the exchange rate and the inflation rate jumped sharply. (These rates fell rapidly once the security situation was under control.) The extent of the correlation is unsurprising in a relatively open economy like Albania. In the country, foreign currency circulates widely, both because of high inflow of remittances from Albanians working abroad and from smuggling and contraband activities. In fact, empirical evidence in Haderi et al. (1999) and Muço et al. (1999) shows that, for the early transition years (1993-96), the exchange rate and remittances explained much more of the variation in inflation than changes in the money supply. We test below whether this result still holds true.

The stable exchange rate has undoubtedly played a key role in anchoring inflationary expectations. Since 1998, the Central Bank has announced at the start of each year a clear quantitative target for annual inflation, usually within a fairly narrow band (e.g. 2-4 per cent). This increased transparency has also helped monetary policy, especially in light of the relatively successful performance to date by the Central Bank in achieving this target.

⁵ See Haderi et al. (1999).

Turning to the relationship between changes in money supply and inflation, Chart 3 shows the co-movement between one measure of money supply – M2 – and changes in the consumer price index from 1994 to 2003.⁶ It is clear from the chart that there is virtually no correlation up until 2000. During that time, changes in money supply were driven by demand shifts. Sometimes these moved in opposite directions, for example in 1994-95 money growth was robust while annual inflation was falling rapidly to single-digit levels, or in 1997 money growth declined while inflation rose sharply in the wake of the pyramid scheme crisis.

Chart 3: Correlations between M2 annual growth and annual inflation



Note: The vertical line indicates September 2000, when the Bank of Albania introduced indirect instruments of monetary policy.

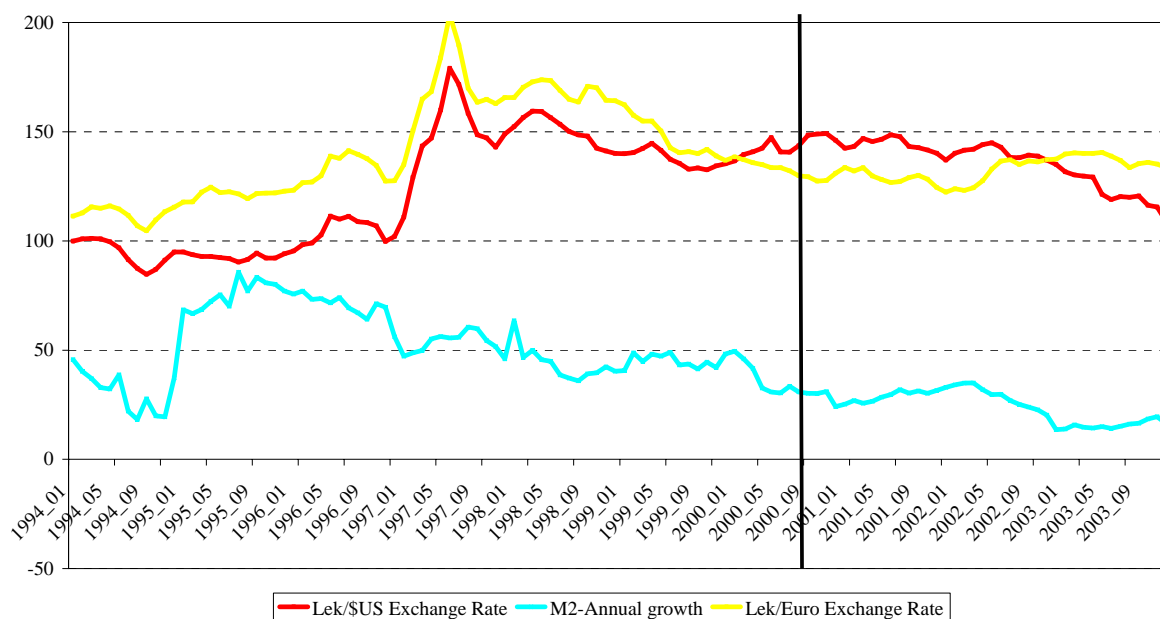
Source: Bank of Albania.

However, a positive correlation emerges after the introduction of indirect instruments of monetary control in September 2000. This change, which is associated with the shift from direct to indirect instruments, is brought out by the econometric results below. It is also consistent with Chart 4, which demonstrates that there is a clear correlation between the annual growth of M2 and the Lek/USD exchange rate after the introduction of the indirect instruments of monetary policy.⁷

⁶ We choose M2 as our measure of money supply throughout this paper rather than M3, as M3 includes foreign currency deposits and is, therefore, more difficult for monetary authorities to control. The substantive results of the paper do not depend on which measure of money supply is used.

⁷ The results of a Chow test support the existence of a structural break in September 2000, for both the relations between money growth and inflation, and money growth and dollar exchange rate.

Chart 4: Correlations between M2 annual growth and exchange rate



Note: The vertical line indicates September 2000, when the Bank of Albania introduced indirect instruments of monetary policy.

Source: Bank of Albania.

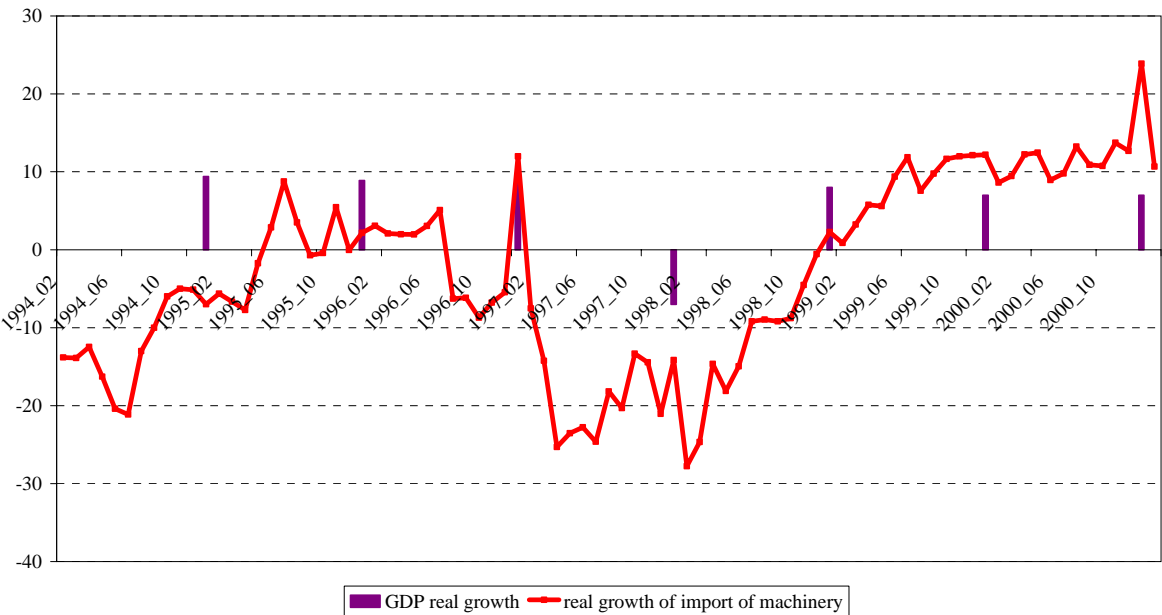
The relationship between nominal and real variables in Albania is difficult to assess, because the main measure of economic activity – gross domestic product (GDP) – is not accurate. Statistical coverage of the new, emerging private sector is inadequate, and there exists a large informal sector that probably accounts for at least one-third of GDP.⁸ In addition, GDP is estimated annually only, whereas monetary aggregates such as inflation and exchange rates are available at greater frequency. For these reasons, it would be useful for policy-makers to have available a good proxy for GDP, so that one could get a better sense of the inter-relations among nominal and real variables.

Charts 5 to 7 show the correlations between real GDP growth and three variables: import of machinery, energy consumption, and net exports. Because of data limitations, we correlate data series of different frequencies: annual data on real GDP growth with monthly data on real growth of import of machinery and net exports, and quarterly data on real growth of energy consumption. Charts 5 and 6 indicate that there is a fairly close correlation between real growth in both import of machinery and energy consumption, and real GDP growth.⁹

⁸ This estimate of informal sector activity in Albania is from IMF (2003), which cautions that it is likely to be an under-estimate. For a discussion of the difficulties of measuring the informal economy, see Sanfey *et al.* (2004, Chapter 2).

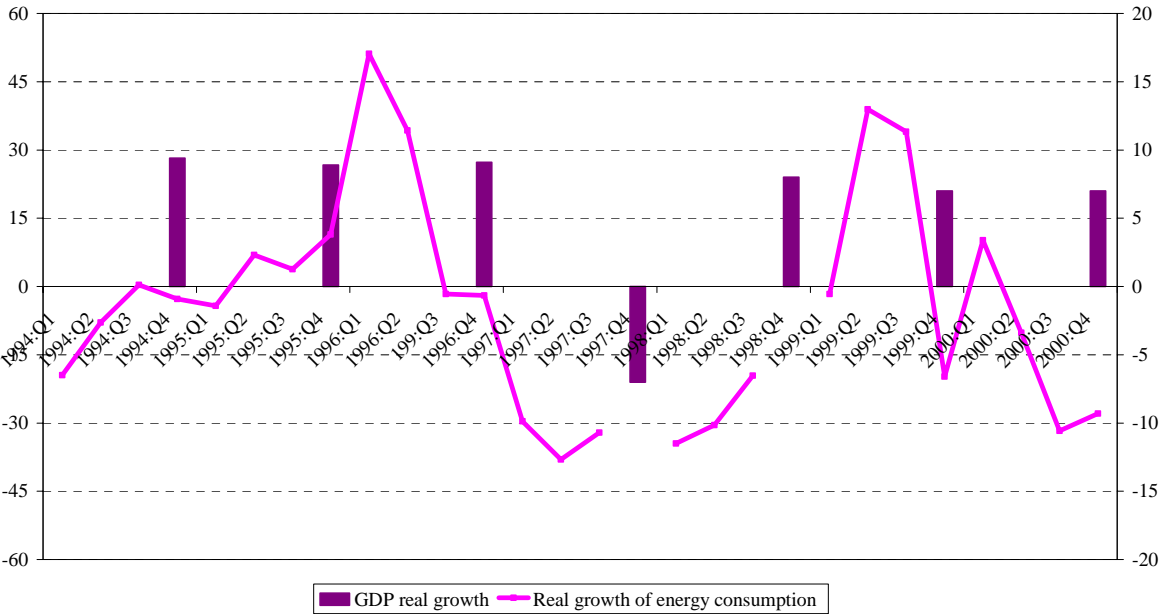
⁹ Real growth for all series is calculated using the CPI.

Chart 5: Correlations between GDP real growth and import of machinery



Source: Bank of Albania.

Chart 6: Correlations between GDP real growth and energy consumption

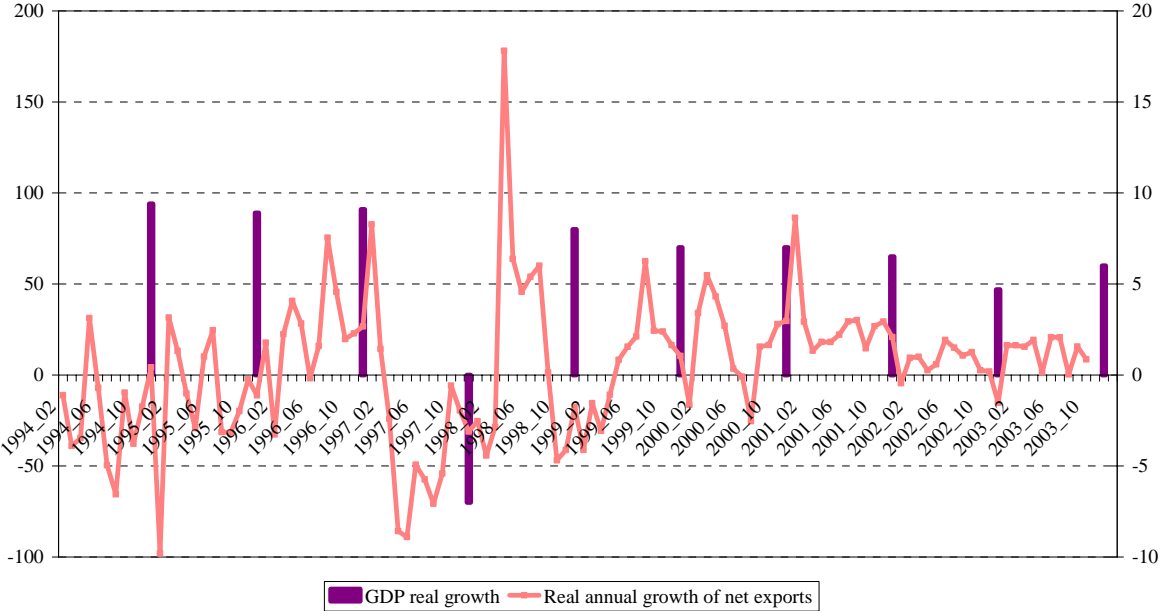


Source: Bank of Albania.

Finally, we examine the correlation of GDP with net exports (see Chart 7). Over the whole period, there appears to be significant co-movement between to two variables. Since we have a longer data series for net exports compared to import of machinery and energy

consumption, and in the absence of a better alternative, we use net exports as a proxy for GDP in our econometric analysis below.

Chart 7: Correlations between GDP real growth and net exports



Source: Bank of Albania

3. ECONOMETRIC RESULTS

While the charts and correlations in Section 2 highlight the main trends, further examination of the interactions among key variables in the economy is required. More specifically how shocks to one variable affect subsequent developments in others, and whether the explanatory power of monetary variables has been increased by the shift to indirect instruments. Few studies have been made in Albania on the correlation between monetary policy decisions and export/import reactions through the exchange rate response.¹⁰ It is, therefore, also interesting to test whether the exchange rate channel operates in Albania and how the effectiveness of this channel has changed with the introduction of indirect monetary instruments.

To answer these questions, we estimate a vector autoregression (VAR) model among the following five variables: money growth, inflation, exchange rate, remittances and the trade balance. VARs are a flexible approach to summarising the interactions among macroeconomic variables without imposing unrealistic exogeneity assumptions. However, they should be seen as a descriptive device only and their explanatory power is limited, especially when the time series are rather short.

The estimation period is January 1994 through to December 2003. Monthly data on all relevant series has been used. To investigate whether the explanatory power of monetary variables has increased following the shift to indirect instruments in September 2000, we also divide the sample period into two. The sample covers the period when direct instruments of monetary policy were in place, from January 1994 to August 2000, and the period when indirect instruments of monetary policy were used, from September 2000 to December 2003.¹¹

The five variables used are: the monthly rate of growth of M2 (M3), monthly inflation, the Lek/USD exchange rate in logarithm form, remittances in US dollars in logarithm form and the monthly rate of growth of the trade balance. The first three variables – money growth, inflation and exchange rate – are included primarily to examine whether the exchange rate channel explains inflationary developments in Albania. However, since exchange rate stability has in turn been aided by the substantial inflows of remittances, we include also remittances in the VAR analysis. Net exports are included to examine the exchange rate channel as a monetary transmission mechanism into the real economy.

Estimation of a VAR requires the imposition of some ordering restrictions. As in Haderi et al. (1999), we argue that the most appropriate ordering is: remittances -> money growth -> exchange rate -> inflation -> trade balance. Remittances affect directly both the money supply and the exchange rate. Money growth also affects the exchange rate, possibly indirectly through the interest rate channel, and the composition of currency demand. Both money growth and the exchange rate are expected to affect the rate of inflation. In addition, inflation or the change in relative export/import prices associated with a change in the exchange rate would affect the trade balance (change in relative demand for exports/imports). A change in the trade balance would also cause a change in output, though as noted earlier we do not have any direct measure of monthly output.

Given the short time series, the system was estimated using just two lags for each variable. Moreover, higher order lags were rejected according to Schwarz-Bayes Information Criterion. Charts 8 and 9 show the derived impulse response functions of four variables: money growth, inflation, exchange rate and trade balance.¹² Separate impulse response functions were derived for the period of direct instruments of monetary policy and indirect instruments of

¹⁰ See Kunst and Luniku (1998) and Kalra (1998).

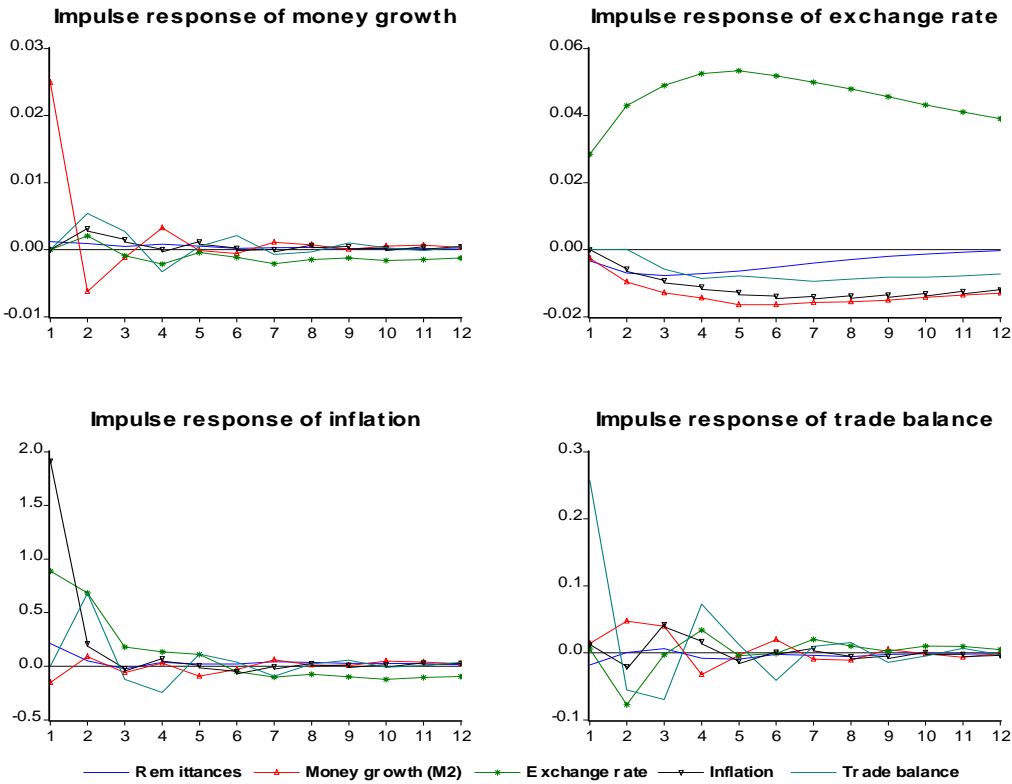
¹¹ This division of the time period is also justified by the structural break found in the correlations between real variables in Section 2.2.

¹² For brevity, we omit the impulse response function of remittances in Charts 8 and 9.

monetary policy respectively.¹³ For each variable, the figures illustrate the response of that variable to a shock to itself and to each of the remaining variables.

We focus first on whether shocks to money growth are associated with the subsequent path of inflation. For the period of direct instruments of monetary policy (up to August 2000), it is clear from the impulse response function that shocks to money supply do not appear to be related to inflation. The exchange rate has an expected positive effect on inflation that peaks after about two months but the effect dies out quickly after three to four months. In contrast, the effect of the trade balance on inflation turns from positive to negative after about three months and dies out after five months.

Chart 8: VAR analysis for the period of direct instruments of monetary policy (January 1993- August 2000)



Source: Authors' calculations from a VAR model, using data from the Bank of Albania.

Money growth appears to have a small but persistent effect on the trade balance (over 12 months), and the same can be said for inflation. The initial small negative effect (i.e. appreciation) of remittances on the exchange rate is persistent and dies out only gradually after nine to ten months. The initial negative relation between shocks to the exchange rate and the subsequent path of the trade balance peaks after two months, and after three months turns positive before disappearing after five months. The effect of remittances, however, is negligible.

These results are complemented by the variance decomposition analysis presented in Table 1. For each variable at different time horizons, the variance decomposition analysis shows the

¹³ We also estimate a VAR for the whole time period. The results, not shown here, are similar to the results of VAR analysis for the period of direct instruments of monetary policy. This is partly explained by the fact that our time period of indirect monetary policy instrument is much shorter than the period of direct instruments of monetary policy.

percentage of forecast error variance caused by shocks to that variable and by shocks to other variables. The table shows the variance decomposition for one, six and twelve month horizons.

Most of the forecast error variance in inflation is explained by its own shocks. Shocks to the exchange rate, however, explain up to 24 per cent of the forecast error variance in inflation after 12 months, while shocks to the trade balance explain up to 9.8 per cent, indicating that the exchange rate and the trade balance together play a significant role in determining inflationary expectations. Money growth only explains up to 0.9 per cent of the forecast error variance in inflation, confirming that movements in inflation cannot be explained by money supply changes during this period.

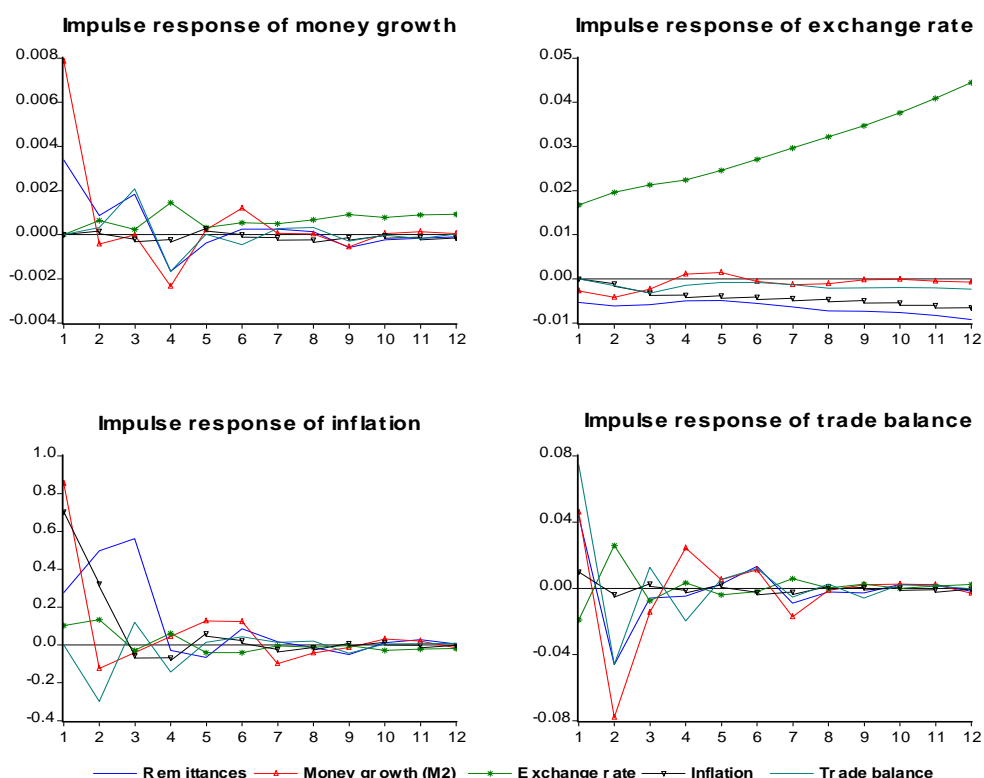
Table 1: Variance decomposition (VAR January 1993- August 2000)

	Months	Remittances	M2	Exchange rate	Inflation	Trade Balance
Remittances	1	100	0	0	0	0
	6	95.4	0.2	3.9	0.2	0.3
	12	93.8	0.4	5.3	0.2	0.3
Money growth	1	0.2	99.8	0.0	0.0	0.0
	6	0.5	89.3	1.5	1.8	6.9
	12	0.5	87.2	3.3	1.9	7.0
Exchange rate	1	1.3	0.8	97.9	0	0
	6	1.6	6.6	86.5	3.8	1.6
	12	0.9	7.6	83.9	5.4	2.2
Inflation	1	1.0	0.5	17.5	81.1	0.0
	6	0.9	0.8	23.2	65.4	9.7
	12	0.9	0.9	23.9	64.5	9.8
Trade balance	1	0.5	0.3	0.1	0.2	98.9
	6	0.5	5.6	7.4	2.9	83.5
	12	0.6	5.8	8.0	3.0	82.6

Source: Authors' calculations from a VAR model, using data from the Bank of Albania.

Most of the forecast error variance in the trade balance is also explained by its own shocks (nearly 70 per cent at a 12-month horizon). Shocks to the exchange rate explain up to 8 per cent of the forecast error variance in the trade balance. Shocks to money supply explain only up to 5.8 per cent of the forecast error variance, indicating that money growth has a small effect on the trade balance. Interestingly, remittances also contribute very little to explaining inflation or exchange rate movements, in contrast to the earlier results of Haderi et al. (1999) and Muço et al. (1999).

Chart 9: VAR analysis for the period of indirect instruments of monetary policy (September 2000 - December 2003)



Source: Authors' calculations from a VAR model, using data from the Bank of Albania.

For the period of indirect instruments of monetary policy, however, the impulse response functions in Chart 9 show that money growth does have a positive effect on inflation. Money growth peaks after six months and gradually subsides after seven to eight months. This indicates a clear relation between money supply and inflation. The positive effect of the exchange rate is also evident, peaking after about two months and subsiding after five months.

Shocks to money growth explain a significant part of the variance in the trade balance as well. The biggest effect occurs after about two months and subsides after about five months. The clear negative effect of money growth in the exchange rate is also evident with the largest effect occurring after two months and dies out gradually after four to five months. Shocks to remittances have a negative effect on subsequent exchange rate movements which dies out after three to four months. This analysis suggests that the explanatory power of monetary variables has been increased by the shift to indirect instruments.

Again, the way in which shocks to one variable affect subsequent developments in other variables under consideration becomes clearer with a variance decomposition analysis presented in Table 2.

Table 2: Variance decomposition (VAR September 2000 - December 2003)

	Months	Remittances	M2	Exchange rate	Inflation	Trade Balance
Remittances	1	100	0	0	0	0
	6	73.0	4.3	17.0	4.3	1.3
	12	43.1	2.5	50.2	3.3	0.9
Money growth	1	15.7	84.3	0.0	0.0	0.0
	6	18.9	70.3	3.1	0.2	7.6
	12	18.5	67.1	6.6	0.3	7.5
Exchange rate	1	9.2	2.4	88.5	0.0	0.0
	6	5.6	1.1	91.1	1.7	0.5
	12	4.5	0.3	92.9	1.9	0.3
Inflation	1	5.8	55.6	0.8	37.8	0.0
	6	29.5	35.4	1.7	27.7	5.7
	12	29.4	35.6	1.7	27.5	5.8
Trade balance	1	18.6	21.1	3.7	1.0	55.6
	6	18.4	39.7	4.9	0.6	36.4
	12	18.4	40.2	5.0	0.6	35.8

Source: Authors' calculations from a VAR model, using data from the Bank of Albania.

Looking at the variance decomposition for inflation during this period, we see that after 12 months, shocks to money growth now explain nearly 36 per cent of the forecast error variance. This is compared to the mere 0.9 per cent during the direct monetary instruments period. This suggests that movements in inflation are explained, to a much greater extent, by money supply changes during this period. This is most likely because money demand is more stable, reflecting the substantial achievement of price stability. Its own shocks explain only 28 per cent of the forecast error variance in inflation. Shocks to remittances explain nearly 30 per cent and shocks to trade balance explain up to 5.8 per cent of the forecast error variance in inflation at a 12-month horizon. Therefore, during this period, remittances are a good indicator of inflationary expectations.

Also the variance decomposition for the trade balance shows that money growth explains up to 40 per cent of the forecast error variance in the trade balance, compared to up to 5.8 per cent during the direct monetary policy period. Its own shocks explain 35.8 per cent of the forecast error variance after 12 months, decreasing from 55.6 per cent after the first month. Remittances explain 18.4 per cent and the exchange rate explains up to 5 per cent of the forecast error variance in trade balance over a 12-month horizon. These results suggest that the exchange rate transmission channel occurs when indirect monetary policy instruments are used.

We also tested the robustness of our results with respect to changes in the order of the variables used. In particular, we tested if the exchange rate anticipates money growth and remittances, as the Bank of Albania actively monitors the exchange rate and takes it into consideration in their monetary projections. More specifically, we tested whether the exchange rate should be earlier in the VAR. We found that the order of the variables is not

crucial to the results. Changing the order gave us similar results in terms of impulse response functions. Also, we tested the robustness of our results by changing the variables used. For example, we tried using M1 or M3 instead of M2, and we tried using the LEK/EUR exchange rate and remittances evaluated in euro instead of US dollars. The choice of monetary aggregate or the use of an alternative exchange rate did not change the results significantly.¹⁴

¹⁴ We considered using the deposit interest rate in the VAR, but chose not to because the rate was virtually constant for much of the period.

4. CONCLUSION

Two main conclusions can be drawn from this analysis of monetary policy in Albania. First, exchange rate stability has played a key role in keeping inflation low for most of the transition period. Second, the range of monetary policy instruments available to the authorities has widened in recent years and this has been associated with more stable and predictable changes in money supply and the price level. Also, the introduction of indirect instruments of monetary policy appears to have contributed to the effectiveness of the exchange rate transmission mechanism of monetary policy into the real economy.

One of the biggest difficulties facing policy-makers in Albania is the poor quality of data available on the real sector. As the quality improves, the link between monetary and real variables will become more transparent. While this may ease the Bank of Albania's task of formulating monetary policy, it is clear that the scope for monetary policy to influence output and employment will remain extremely limited. This is because, first, Albania remains a largely cash economy, with one of the highest ratios of cash to GDP among all transition countries. (This greatly limits the effectiveness of conventional monetary policies.) Second, Albania faces additional constraints (e.g. a floor on international reserves) from its obligations under the IMF programme. In addition, the Albanian economy has moved from almost complete isolation to relative openness over the past 13 years, and is therefore increasingly dependant on developments beyond its borders. However, the Bank of Albania can continue to play a stabilising role in the economy by developing prudent monetary policies and occasionally managing the exchange rate to smooth out shocks.

The results from our analysis demonstrate that Albania has come a long way in terms of controlling inflation, liberalising financial markets and improving the predictability of inter-relations among key macroeconomic variables. In recent years, the Central Bank has been setting, and achieving, an annual inflation target of 2-4 per cent. The next logical step may be a move to explicit inflation targeting.¹⁵ Such a policy allows flexibility when facing real domestic (aggregate demand) and external shocks. In addition, inflation targeting uses a forward-looking approach that allows the Central Bank to avoid policies that are contrary to the target. A forward-looking policy is likely to have a stabilising effect over financial markets. The Czech Republic was the first transition country to adopt this alternative to the monetary policy.¹⁶

This strategy may also be attractive for Albania. The existing free float exchange rate regime makes the replacement of monetary control with targeting of inflation easier. It may also help strengthen the independence of the Central Bank. However, formal inflation targeting comes with a substantial potential cost, and there are several reasons why Albania may not yet be ready to fully adopt such a policy.

First, as the analysis above makes clear, the transmission mechanism is not yet well defined in Albania, and therefore the effects of any change in monetary policy is uncertain. Not only is there a large informal sector, but the securities markets are rudimentary and their impact on the economy still need to be monitored. Indirect instruments of monetary policy are also relatively new and not fully tested.

Second, inflation forecasting techniques are not well-developed in Albania. There is considerable scope for further improvements to increase accuracy. Indeed, the main index for calculating inflation – the CPI – has been criticised for not representing consumption patterns. Alternative indices are not in place yet and statistics on national accounts are not reliable.

¹⁵ For a detailed explanation and comparative experience see Blejer at al. (eds., 2000) and Svensson (2000).

¹⁶ However, several publications show increasing interest from Poland. See, for instance, Orlowski (1998) and Dabrowski (ed., 1999).

Third, the transparency and accountability of monetary policy decisions are not yet well understood by the public. The Bank of Albania has significantly increased public education in an effort to influence inflation expectations, but more needs to be done. Furthermore, monetary policy affects real variables sometimes with long and unpredictable lags, making the education process more difficult.

It is not clear that the present inflation target band of 2-4 per cent is the optimal range of inflation in Albania, or indeed whether it should be a band or a point. So far the band has generally been achieved and been a good discipline for the Albanian authorities. Nevertheless, external events such as political instability, elections and shortages of key goods, such as electricity, can hinder implementation of the target. Speculative attacks, like the one that caused a liquidity problem in the Albanian banking system in spring 2002, would complicate considerably the introduction of inflation targeting. All of these considerations suggest that the adoption of inflation targeting in Albania may be some way off.

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