Monetary Policy in Transitional Economies: Particularities

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Abstract: *This paper surveys the particularities of monetary policy as a powerful governmental weapon in countries with transitional economies. The paper combines the theoretical analysis with empirical studies. Because in transitional economies the particular channels of monetary policy are diverse, continually changing, and uncertain reduce-form evidence are used to evaluate the empirical evidence. The brief view of relationships between movement in money supply (M1 and M2) and output level (nominal GDP) in Georgia illustrates the close correlation between them. Georgian economy, like others transitional economies, suffers from "Great Transitional Depression" and macroeconomic equilibrium occurs at recessionary gap. In transition countries initially supply is more elastic and elasticity increases more rapidly than that in developed countries. In these circumstances expansionary monetary policy effects real aggregate economy stimulating economic growth with mild inflation. In industrialized countries accommodating discretionary monetary policy entails cost-push inflation without any change in long-run GDP.*

Keywords: monetary policy, transitional economy, reduce-form evidence, long-run economic growth, inflation.

Introduction.

The program of the Georgian Government for 2007-2010 (Government of Georgia: Basic Data and Directions for 2007-2010; 2007) aims to achieve sustained, rapid, and equitable economic growth in an environment of low inflation. The macroeconomic policy has to strength macroeconomic fundamentals and to improve growth prospects.

This paper is focused on monetary policy and examines strategies for monetary policy in Georgia as a country with transitional economy.

There exists no unanimity among economists about how monetary policy affects the real economy, and what mechanisms and channels determine the linkage among them. In section 2, we consider the most widely used approaches to evaluate the empirical evidence: Structural

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model evidence and Reduce-form evidence; advantages and disadvantages of each of them are briefly examined. Special attention is paid for evaluation of the empirical evidence that is Georgian statistics data to find out a correlation between movement in GDP and money supply (M_1 and M_2).

In section 3, the paper reviews both long-run and short-run impacts of expansionary monetary policy both in countries with transitional economies and industrialized countries. In post Soviet countries such as Georgia, expansionary monetary policy entails different effects on aggregate economy than that in industrialized economies. The policy stimulates economic growth with mild inflation.

Brief conclusion closes the paper.

Methodology and Data

Monetary policy remains a powerful governmental weapon which has historically proven that it is difficult to wield. First of all, we must have the special instruments suitable for evaluation of empirical evidence. Generally, economists apply two basic types of economic empirical evidence. They are: Structural model evidence and Reduce-form evidence (Mishkin, 2004).

Structural model evidence, used primarily by Keynesians, offers an understanding of how the economy works by using the data to build a model that explains the channels through which one variable affects the others. If the transmission mechanisms and channels through which monetary and fiscal policy can affect economic activity are correct, the structural model approach has some advantages. But this is a big if. Failing to include one or two relevant transmission mechanisms for monetary policy in the structural model might result in a serious underestimate of the impact of money supply on output level and other economic variables. It should be stressed that: a) there is essential distinction between macroeconomic policies in advanced and transitional countries; and b) the channels and mechanisms of policies have not been yet clarified for transitional economies. Thus, when the advantages and disadvantages of structural model are discussed among the economists, this debate concerns the developed economies. For countries with transitional economies, the disadvantages of this model are obvious because the particular channels of monetary policy are diverse, continually changing, and uncertain in transitional countries. It is too difficult to identify all the transmission mechanisms of monetary policy in such economies. Moreover, there is a required precondition of using the

structural model evidence (see Mishkin, 2001)[1]. Under the circumstances only one way may be used to evaluate the empirical evidence - this is reduce-form evidence.
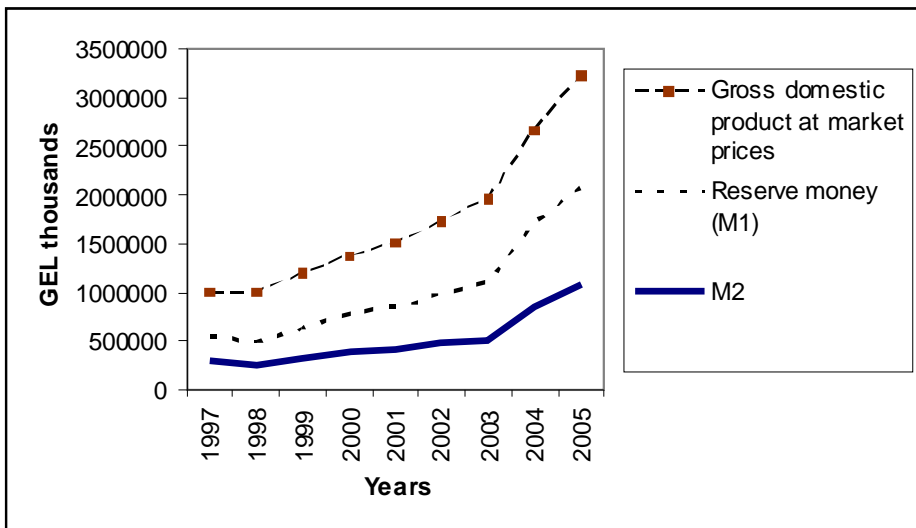
The reduce-form evidence approach examines whether one variable has an effect on another simply by looking directly at the relationship between the two variables. It was used primarily by monetarists who examined the effect of money on economic activity by looking at whether movements in Y (GDP) were linked to movements in M (money supply). Using reduce-form evidence, monetarists analyze the effect of M on Y as if the economy were a black box whose working cannot be seen (see Diagram 1).

Diagram 1

M ⟶ [?] ⟶ Y

The causation between the change in M and Y is a tested fact.

Let us examine this causation by using the Georgian statistical data (see Figure 1). What is clear is that, firstly,   the close correlation exists among movement in nominal GDP and the money supply (M_1 and M_2). M_2 is more stable monetary aggregate, but M_1 follows the movement in GDP more accurately.

Figure 1. GDP and money supply dynamics in Georgia

Source: Georgian Economic Trends, March 2006, pp.15, 29; Georgian Economic Trends, 1999, #1, p.24; State Department for Statistics

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[1]In the literature on the money transmission mechanism , a lot of channels through which monetary policy affects the economy are analyzed, for instance, traditional interest rate, Tobin's q theory, asset prices (stock market prices, real estate prices, exchange rate) and so on.

Secondly, usually economists consider the direction of causation as running from M to Y, but Keynesian Theory of Reverse Causation gives another explanation. Keynesians argued that a change in any of the variables - prices (P), real output Q), or velocity (V_y) - causes the money supply (M_s) to change. So, the money supply (M_s) is no longer an exogenous variable to be controlled by the central bank, but rather it is an endogenous variable, determined by the demand for money and the level of economic activity. Because

$$M_s = \frac{PQ}{V_y} \quad \text{or} \quad M_s = f(P,Q,V_y)$$

This phenomenon occurs, especially, in a fractional banking system, where control of the money supply is shared by the central bank and the commercial banks, and in an open economy, where part of the original domestic money supply flows in and out of the country in response to current and capital flows.

As we can see, a change in any of the variables directly affects the demand for money and after that, or in the second round may result in the movement of money supply. On another side, the size of this effect will depend on share of money supply that is under commercial banks control. Thus, Reverse Causation effect should be investigated in each particular case separately and it is not general for all economies.
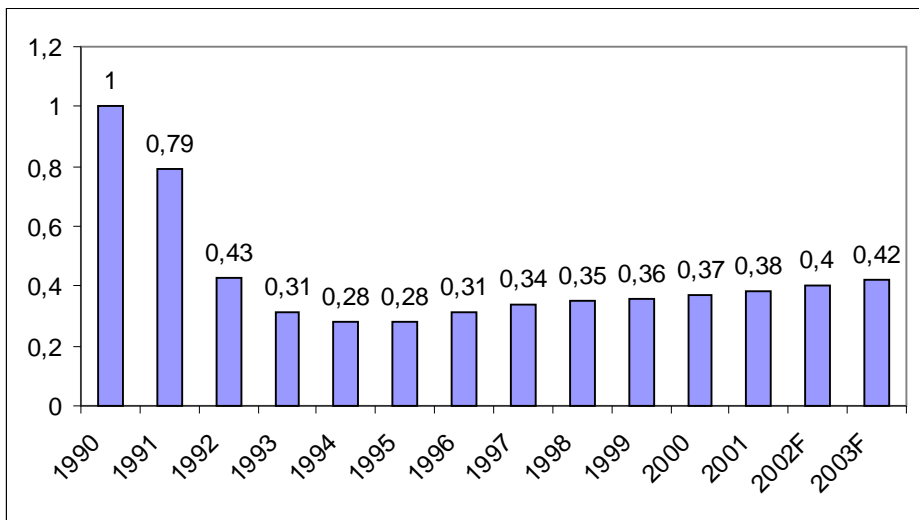
Theoretical Model

Any macroeconomic policy-maker should worry about time horizon of macroeconomic policy. The question arises "Does monetary policy effect only short-run growth or long-run economic variables as well?" Some economists consider just short-run effect of monetary policy. Georgian economists believe that "monetary policy cannot influence the long-run growth, and that at most it can only smooth cyclical component of output. Monetary stimulation of economic activities may produce positive result only in the short-run; in the longer horizon, though, it leads to higher inflation and increases risk, which in turn deter production and growth." (Gigineishvili, 2002).

We revise this statement and consider it as a correct one just for advanced (industrialized) market economies, and it is incorrect for developing or transitional economies.
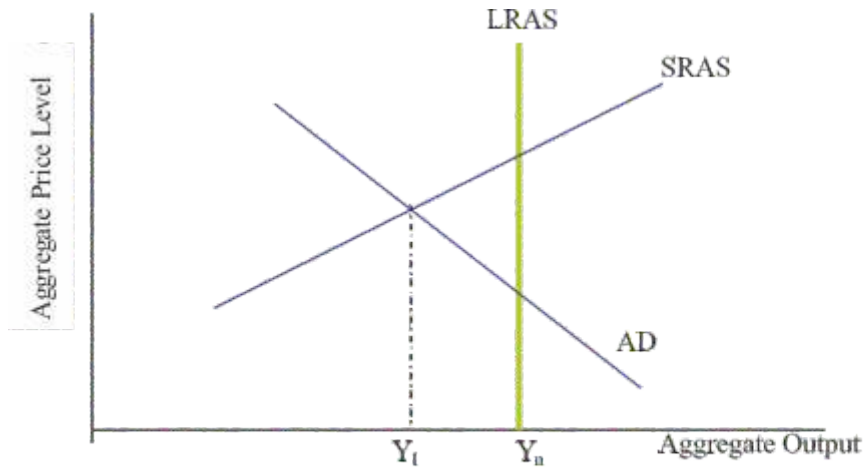
Statistical observation

Transitional economies as usual suffer from underproduction of output and despite a high annual growth rate of GDP it level remains too low comparing to the beginning of 1990s in most post Soviet countries. Georgia was not an exception. As data from Figure 2 illustrate after restoration of Georgian independence in April 1990, the country fell into a deep economic recession with national output and employment contracting dramatically, particularly, GDP contracted more than 70%. Despite the high rate of growth of current GDP[2] (Georgian Economic Trends, 2000), in 2005 (according to our estimation) Georgia produced still about half of GDP compare to 1990 (approximately, only 53 percent). Hence, transitional recession lasted much longer than expected, contraction was deeper than assumed earlier, and the recovery was not as smooth as envisaged both by the government and the international organizations. Actually, instead of soon coming recovery and robust growth, the lasting recession turned to be the "Great Transitional Depression" similarly to the Great Depression of 1930's, continuing in most Post Soviet countries and in Georgia particularly, over whole decade of the 1990s.

Figure 2. Real GDP change during 1990-2003, Georgia

Source: Georgia Today: Investor's guide (2004), p.20

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[2]For instance, in 2004 real GDP grew by 5.9 percent, in 2005 by 9.6 percent, and in 2006 by 9.4 percent.

Figure 3. Recession in transitional economies in 1990s

where LRAS is long-run aggregate supply, SRAS – short-run aggregate supply, and AD – aggregate demand; Y_n presents natural rate level (or level of output at natural rate of unemployment) and Y_1 is actual GDP (actual output level).

Thus, in transitional economies macroeconomic equilibrium occurs at recessionary gap - $(Y_n - Y_1)$ (see Figure 3).
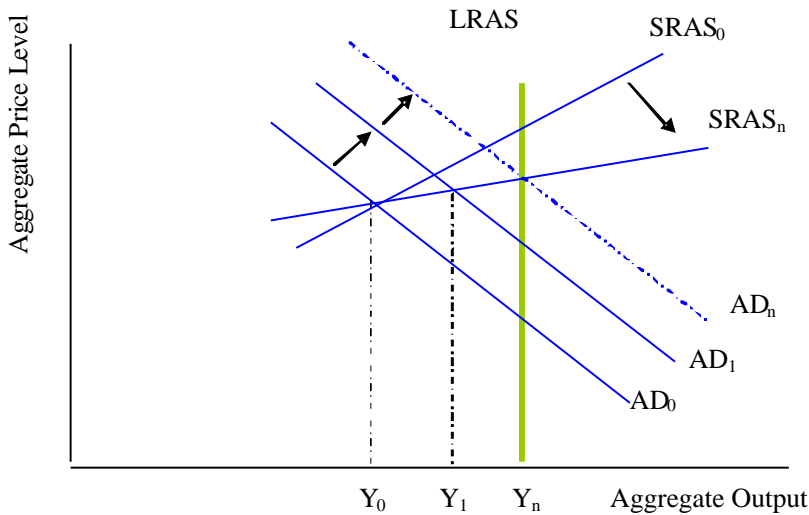
It is important to underline this fact because IMF programs for transitional economies which were adopted in most post Soviet countries including Georgia were based on monetarist prescriptions. The core point in such programs was prudent but strict monetary policy to stabilize the money supply and curb hyperinflation. Under these circumstances a restrictive monetary policy was the only way to create required economic prerequisites for further reforms. Economic situation has changed. Today policymakers call for elaboration and implementation of an effective economic policy to assure stable growth of the economy (Government of Georgia: Basic Data and Directions, 2007). The question is how to achieve this goal.

In broad outline, there are two types of solutions. One type is market oriented – and the other, interventionist. The first type calls for free markets, specially designed financial instruments and a global "laissez faire" environment to solve the economic issues. It is closed to monetarist recommendations. The second approach or activist (Keynesian) regards the free markets as the source of the problem, rather than its solution. It

calls for domestic and where necessary international intervention and assistance in resolving economic crises.

Both approaches have their merits and both should be applied in varying combinations on a case by case basis. We believe that in transitional economies in course of or soon after "Great Transitional Depression" activist policy or active government intervention in domestic economy is a turning point. In other words, in transitional countries like Georgia it is time to readopt the path of John Maynard Keynes. Following the activists' recommendations government should adopt expansionary fiscal or/and monetary policy to stimulate the economy by shifting the aggregate demand curve to the right in order to achieve full employment level in long-run (Y_n in Figure 4).

Figure 4. Response to expansionary macroeconomic policy in transition economies
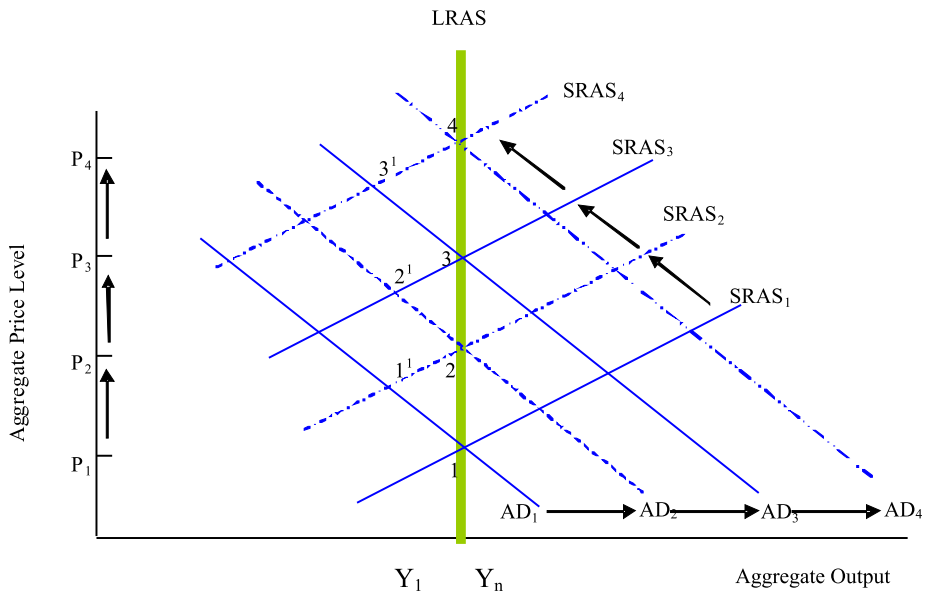

In transition economies supply curve (SRAS in Figure 4) initially is high elastic and degree of elasticity increases - $SRAS_0$ shifts to $SRAS_n$ - much more rapidly than that in traditional market economies till closed to horizontal line (Keynesian segment of aggregate supply curve). In this case increase in aggregate demand leads to sustainable economic growth accompanying with smile inflation. Both an increase in supply and elasticity of supply occur because in transition economy recovery and reconstruction of the economy go along with each other.

It is worthily to repeat, that we distinguish between "transitional

depression" in transitional economies and stagflation in industrialized economies. The last may be a result of any negative shock, such as a sharp increase in oil price (See Figure 5). An activist policy promotes both high employment and cost-push inflation. This type of accommodating discretionary monetary policy and its results have been examined in economic literature (for instance see Mishkin, 2004). In cost-push inflation, the leftward shift of the aggregate supply curve from $SRAS_1$ to $SRAS_2$ to $SRAS_3$ and so on, cause a government with a high employment target and adopting accommodating policy to shift aggregate demand curve to the right from AD_1 to AD_2 to keep unemployment and output at their natural rate levels. The result is continuing rise in price level from P_1 to P_2 to P_3 and so on or cost-push inflation.

Figure 5. Cost-push inflation with an activist policy in advanced countries

Hence, in transitional countries expansionary monetary policy does affect real aggregate economy stimulating economic growth with mild inflation. It is not surprising that empirical data proves this conclusion. In particular, National Bank of Georgia declares that in the second half of 2005 GDP rate of growth was 9.3 percent without increase in price level which could be explained by putting production capacities gradually into operation (the similar situation was described by John Keynes in 1936). In addition, "the analysis of various prices indices revealed exogenous nature

of the inflation. The economic growth, in fact, had no-inflationary nature"
(National Bank of Georgia. Annual Report, 2005). Another
acknowledgement of our hypothesis may be found in Gigineishvili's (2002)
investigation who observed the correlation between monetary policy
(exchange rate control) and inflation rate in Georgia from 1997 to 2001. He
concluded, "The results indicate that price inertia is the most important
determinant of price movements". He went on to say, "Responsiveness of
price to aggregate demand appears to very weak: 1 percent growth of real
GDP results only in 0.05 percent in the next period. Seven factors may
underlie the weakness of this relation. First, large – scale shadow economy.
Second, at an early stage of economic development with low levels of
employment and productive capacity utilization, Georgia would fall on an
elastic part of aggregate supply, in which case increased demand would
only slightly affect prices."(Gigineishvili, 2002).

Conclusion

Accommodating monetary policy is still the objective for debates
among Keynesian economists and monetarists. They also use different
approaches evaluating empirical evidence. Reduce-form evidence is more
correct and suitable for transition countries, because in these countries
particular channels of monetary policy are diverse, continually changing,
and uncertain. The causation between the change in money supply and real
GDP is a tested fact in Georgia.

Brief analysis of dynamics of Georgian GDP presents the fact that
the country still suffers from so called "Great Transitional Depression"
because the level of GDP has not achieved than that of the beginning of
1990s. It's important to distinguish between "Transitional Depression" in
transitional economies and stagflation in industrialized economies. As a
result of this discrepancy, in countries with transitional economies the
effects of monetary policy are absolutely different than that in developed
economies. In industrialized countries an accommodating discretionary
monetary policy or activist policy promotes both high employment and
cost-push inflation. In countries with transitional economies expansionary
monetary policy stimulates economic growth with mild inflation.

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