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Inflation Expectations and Probable Trap for Macro Stabilization

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As of today, a majority of the negative consequences of the deep Belarusian currency crisis of 2011 seem to have been realized. Hence, the Belarusian economy is now 'purified' from main macroeconomic distortions and has a chance for sustainable long-term growth. Nevertheless, there are signals that some nominal and real inertia may generate new shocks for the national economy. From this view, the money market is of great concern, while interest rates signal maintained high inflation expectations. High and unstable expectations may entrap monetary policy and generate new shocks for the Belarusian economy. In this policy brief, we deal with a visualization of inflation expectations and argue for the necessity of a new nominal anchor in order to stabilize expectations for future periods.

In 2011, Belarus experienced the highest inflation and devaluation in modern history. These were consequences of the automatic macroeconomic adjustment determined by a number of both long- and short-term distortions in the national economy. Changes in prices and exchange rate adjusted real parameters towards their long-run equilibrium level. Hence, from a long-run perspective, one may interpret these adjustments as favorable since they 'purified' the economy from the macroeconomic imbalances that may have hampered growth. Furthermore, shifting from exchange-rate (XR) targeting to a managed float is another essential aftermath of the currency crisis. Economic authorities had to recognize that accommodative monetary policy (MP) was not compassable with XR targeting since it resulted in a considerable overvaluation of the real XR, and correspondingly, an incredibly large current account deficit. Thus, the new exchange rate regime may be argued to be a new automatic stabilizer for Belarus, providing the level of current account balance consistent with other macroeconomic fundamentals. Overall, the current stance of the national economy might be treated as a chance to "begin again from the ground up". In this sense, the Belarusian economy as of today is sometimes compared to the Russian economy after its crisis in 1998, which then performed particularly high growth rates.

In our opinion, realizing the opportunity for a strengthening of long-term growth through structural changes undoubtedly should become a policy priority of Belarus in the near future. However, it should be emphasized that despite "purification" from major macroeconomic imbalances, there are still a long list of short-term challenges. In particular, one may stress the risks of expansionary policy revival; increasing external debt burden; growth in non-performing loans, which may undermine the solvency of the banking system; reduction of foreign demand due to shocks in global economy. These risks are more or less observable and may be monitored. Hence, the realization of one or the other shocks from this list might not come as a surprise, and economic authorities seem to at least realize this, and when possible, take prevention measures.

The Forum for Research on Eastern Europe and Emerging Economies (FREE) is a network of academic experts on economic issues in Eastern Europe and the former Soviet Union at BEROC (Minsk), BICEPS (Riga), CEFIR (Moscow), CenEA (Szczecin), KEI (Kiev) and SITE (Stockholm). The weekly FREE Policy Brief Series provides research-based analyses of economic policy issues relevant to Eastern Europe and emerging markets.

At the same time, another challenge seems to be more adverse and urgent; namely, the question of inflation and devaluation expectations. In economic theory, expectations play a crucial role in affecting behavior of economic agents. Recognition of the role of expectations at the money market determined intention to "subject" and stabilize these within modern monetary policy frameworks.

In Belarus, given the recent history of high inflation and devaluation, corresponding expectations of Belarusian economic agents are likely to be rather high. Moreover, shifting from XR targeting to a managed float has not yet resulted in provision of a new nominal anchor for the public.

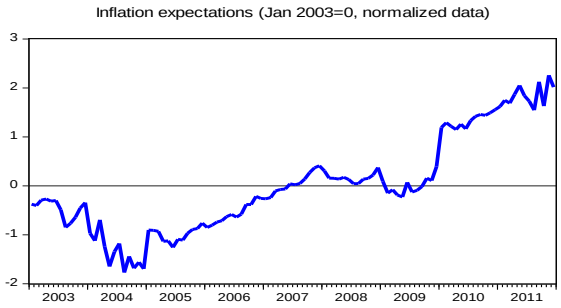
For instance, disinflation was declared to be a priority goal, but there are no strict commitments on its numerical value, as well as in respect to procedures and mechanisms to provide disinflation trends. As of today, the Belarusian MP regime can hardly be classified as a standard regime. The MP Guidelines for 2012 assume indicative targets on international reserves, refinancing rate and the growth rate of banks' claims on the economy. The latter witnesses the propensity to monetary targeting. However, the instable relationship between the monetary aggregate to be targeted and the ultimate goal (inflation), as well as the indicative nature of this commitment give rise to doubts in respect to treating it as monetary targeting. Furthermore, commitment on bank claims on the economy can hardly be treated as a nominal anchor for the public. According to the taxonomy of MP regimes by Stone (2004), Belarus is currently closer to the weak anchor regime, which assumes "*no operative nominal anchor…and central bank reports a low degree of commitment… and high degree of discretion*".

Thus, our hypothesis assumes that there has been an adverse shock in inflation expectations due to weak nominal anchor and recent experience of huge inflation. If that is the case, this may be an additional source of shock for the money market, which may cause a new wave of macroeconomic instability. In order to make policy recommendations, this hypothesis needs empirical support. However, it is difficult to identify expectations in empirical analyses since this variable is typically unobservable and cannot be univocally measured. Instead, expectations are most often treated indirectly through other variables. Many central banks deal with the results of sociological polls on this issue, but these approaches may suffer from different economic meanings and measurements of inflation expectations by economic agents.

An alternative approach was proposed by St-Amant (1996) and extended by Gotschalk (2001), who base on famous Fischer equation representing current nominal interest rate as the sum of ex-ante real interest rate and expected inflation. Further, based on the approach by Blanchard and Quah (1989), structural vector autoregression (SVAR) between nominal and real interest rate is identified with a number of restrictions, which allows decomposing changes in the nominal rate to those associated with ex ante real rate and inflation expectations. The latter may be used as a measure of inflation expectations. Such a measure of inflation expectations assumes explicit economic meaning referring to the money market, i.e. the rate of future inflation, which will provide the, by economic agents, expected level of interest rate. Taking the data from statistics (not polls) and international comparability of such estimates are important advantages of this approach.

We applied this methodology to Belarusian data (nominal and real interest rate on ruble households' deposits with a term more than a year). The obtained time series measure changes in inflation expectations in the current period for a period of the next 12 months. However, our goal is to visualize the level of inflation expectation and not changes in expectation. Therefore, we use the series in levels, choosing January 2003 as the base period (when National Bank of Belarus actually shifted to XR targeting regime), and assigned a zero level (as starting one) to it. The obtained series of inflation expectations is provided in Figure 1.

Figure 1. Inflation Expectations in Belarus



The estimated series of inflation expectations show a decrease in 2003 – mid 2005, which may be explained by the effectiveness of the new nominal anchor (XR), and correspondingly the expected disinflation. The expectation of reflation in late 2005 till late 2007 may be explained by the more expansionary policy and changes in Russian preferences that took place during this period. After that, there was a period of stable expectation, which is likely to be explained by the credibility of the nominal anchor (nevertheless, there was a shock in late 2008 that is associated with the impact of the global crisis).

The most considerable shock took place in the beginning of 2010, which has a lack of intuitive explanation and might be associated with a phase of radically expansionary policy.

Finally, a new significant shock took place in late 2010 – beginning 2011 which might be associated with the visualized problems at the currency market at that time.

Currently, there is a very high level of inflation expectations and its increased volatility in the second half of 2011 seem to be of a great importance. It signals that economic agents do not treat price shocks as a single-shot, but mostly tend to consider it as a long-lasting process. Hence, the absence of a nominal anchor and the fresh memory of huge inflation seem to be responsible for the current high and instable inflation expectations.

Maintenance of high inflation expectations is a dangerous threat for the money market. Propagating inflation through expectations may be considered as a separate channel within the monetary transmission mechanism (along with interest rate, exchange rate and bank-lending channels). In other words, even without additional fundamental preconditions for inflation, inflation expectations may become a self-fulfilling prophecy.

However, during the last two months (December 2011 and January 2012) this adverse effect seems to have been suppressed by monetary authorities, as the monthly inflation rate reduced radically in comparison to average rate in May-November 2011. This is likely to be the outcome of the significant monetary policy tightening that has resulted in a sharp increase in nominal interest rates by banks. On the one hand, such nominal interest rate complies with the shocks in inflation expectations and real ex ante interest rate (the latter grew as well at the background of the crisis). In other words, current level of nominal interest rates will equalize ex post real rate with ex ante real rate if the actual inflation rate has been as high as current inflation expectations. But on the other hand, if actual inflation had been much lower than expected one (and it tends to be so, in case of keeping on conservative MP), ex post real rate would be much higher than the ex-ante one. For instance, such a situation has already been peculiar during December and January: according to our estimations, ex ante real interest rate in December was about 3.6% in annual terms (preliminary data on January shows that it in this month it is rather similar), but annualized ex post real rate for these months is about 30%.

This suggests that there is a trap for the monetary authorities. If they keep high interest rates, based on the expected inflation, the impact of expectations on actual inflation will be mitigated, but the losses, say in terms of output, will be high because of the extremely high ex post real interest rates. If the monetary authorities facilitated the rapid reduction of nominal interest rates, current nominal rates would not guarantee ex ante real interest taking into consideration the high inflation expectations, which would then constitute a

severe shock for the money market. Hence, the mechanism of self-fulfilling prophecy would work.

Furthermore, the increased ex ante real rate (and high probability of even higher ex post real rate in national currency) could give speculative incentives for a number of economic agents. For example, many agents could increase the share of national currency in their savings portfolio, either avoiding buying hard currency (which took place during the peak of the currency crisis) for new deposits, or changing the nomination of their deposits to the national currency (i.e. selling the hard one). In a sense, this trend may be interpreted as the compensation of losses on ruble deposits in the last year, which is needed to revive the demand for such deposits. But in any case, these internal processes (along with restricting money supply by the National bank) influence the domestic currency market. Through this, the supply and demand are formed not only due to current and financial international flows. Hence, due to these incentives for hard currency supply and demand, the current value of the nominal rate may substantially deviate from the equilibrium rate. The latter may be defined as in Kruk (2011): the one that may clear the market immediately (given short-term trends in current account flows at the background of medium-term values of other fundamentals).

Figure 2. Actual and Equilibrium Exchange Rate

Note: For 2010Q1-2011Q1 official rate of the National bank is taken as actual nominal rate, for 2011Q2 the exchange rate at the 'black market' (used by internet shops), and for 2011Q3 'black market' and later the exchange rate of the additional BCSE session are taken.

The assessments of the equilibrium exchange rate based on this methodology (Kruk (2011)) show that in the third quarter, the actual rate almost equals the equilibrium rate. For 2011Q4, all necessary data is not available yet, but an approximate assessment correction of the equilibrium rate of the Q3 for average inflation between Q3 and Q4 may be used (i.e. in real terms the rate should not have changed in order to sustain equilibrium). Such an assessment indicates that the actual rate in the Q4 is again overestimated by roughly 5-10% in comparison to the equilibrium rate.

At a first look, such an 'overhang' at the domestic currency market seems to not be a great problem. But along with the trap stemmed from the high and unstable inflation, this may contribute and propagate possible shock at the money market. Furthermore, this 'overhang' is due to speculative incentives, which in turn, are due to high inflation expectations. Hence, high and unstable inflation expectations are a prime cause of this 'overhang'.

Finally, we may argue that unfavorable inflation expectations is a multidimensional problem, which generates grounds for shocks at the money market and entraps monetary policy at the current stage. Therefore, restraining inflation expectations must currently be an absolute and unconditional priority of economic policy.

This gives rise to the issue of which policy tools that are needed for solving this problem. Tight monetary policy alone may not be enough and/or its losses in terms of output may be unacceptably high, especially taking into account that keeping the Belarusian economy depressed is likely to cause huge migration and thus reducing the prospects for long-term growth.

Our view on the problem of inflation expectations supposes that they stem both from recent experience of very high inflation and the absence of nominal anchor. Inflation memory cannot easily be removed, but introducing a new nominal anchor seems to be worthwhile. Among possible options, given

the desire to preserve autonomous monetary policy in Belarus, the introduction of inflation targeting (IT) is seen as inevitable. A shift to this regime is associated with plenty of obstacles and might not be realized immediately (Kruk (2008)). A gradual shift to IT through its intermediary phases (so called IT Lite) is more expedient and complies more with the requirement of obtaining new powers and capacities at the National Bank of Belarus.

Taking on more and more strict commitments in terms of inflation and implementing mechanisms and procedures peculiar for IT (the latter is even more important than commitments themselves) will increase credibility and public trust for the National bank. The other side of the coin involves decreasing and less volatile inflation expectations, which do not challenge monetary policy and facilitate low and stable inflation. Another advantage of IT is the possibility to mitigate price shocks.

Our main policy recommendation is therefore that it is necessary to shift to an IT framework as soon as possible, starting from exploiting the forms of IT Lite. The advantages of this step overweigh all the obstacles, including those associated with the reluctance of economic authorities to change institutional preconditions.

However, one important clause should be emphasized. Shifting to IT (especially gradually through IT Lite) does not guarantee that current high inflation expectations will be reduced automatically and immediately. In other words, it does not guarantee that the cost of reducing inflation in terms of output will decrease (though for the present Belarusian situation there are grounds to suspect that it would facilitate). For instance, Mishkin (2001) shows that "*there appears to have been little, if any reduction, in the output loss associated with disinflation, the sacrifice ratio, among countries adopting inflation targeting… The only way to achieve disinflation is the hard way: by inducing short-run losses in output and employment in order to achieve the longer-run economic benefits of price stability*". However, an introduction of IT assumes that new shocks in inflation expectations may be prevented, and due to it, low and stable inflation will be more likely.

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