FOREIGN EXCHANGE RATE POLICY IMPLICATIONS ON COMPETITIVENESS IN AGRICULTURE

FARKAS-FEKETE, MÁRIA – SÁGI, JUDIT

SUMMARY

By this study we follow the discussion initiated by prof. Magda in his article "Exchange rate policy and the agriculture", also reflecting to Lakner-Podrudzsik "Does the depreciation of the forint mean a medicine or a placebo?"

We argue that the real effective exchange rate – in case of small and open economies, especially in the medium term – basically determines the competitiveness of the economy as a whole, and the agriculture, as a part. In this paper we analyse the effects of the forint exchange rate divergence from the equilibrium exchange rate and its volatility, in relation to the specifications of the agricultural sector with possibilities to accommodate. In this sense we correspond to prof. Csáki, saying that recent appreciation of the forint has clarified the insufficient competitiveness and weak effectiveness of the Hungarian agriculture.

Key words: monetary policy, foreign exchange rate, parity

INTRODUCTION

Hungary, during the previous years, – in the scope of a prospective join to the Economic and Monetary Union ("EMU") – has been moving towards more exchange rate flexibility; towards the EU exchange rate mechanism ("ERM-2"). Accordingly, the exchange rate no longer plays the role of the main policy objective or the nominal anchor. At the same time, there seems to be a trend towards the adoption of a more explicit inflation target.

In fact the Hungarian foreign exchange rate policy is unclear and misleading to financial markets. There is no certainty in reasonably targeting the forint band: fixing the forint/euro conversion rate at 245-250 makes the economic growth rate weaker, while, as opposite, an undervaluated forint conveys inflation pressure. Moreover, the actual forint market exchange rate is less affected by the fundamentals but mostly by the interest rate expectations of foreign investors.

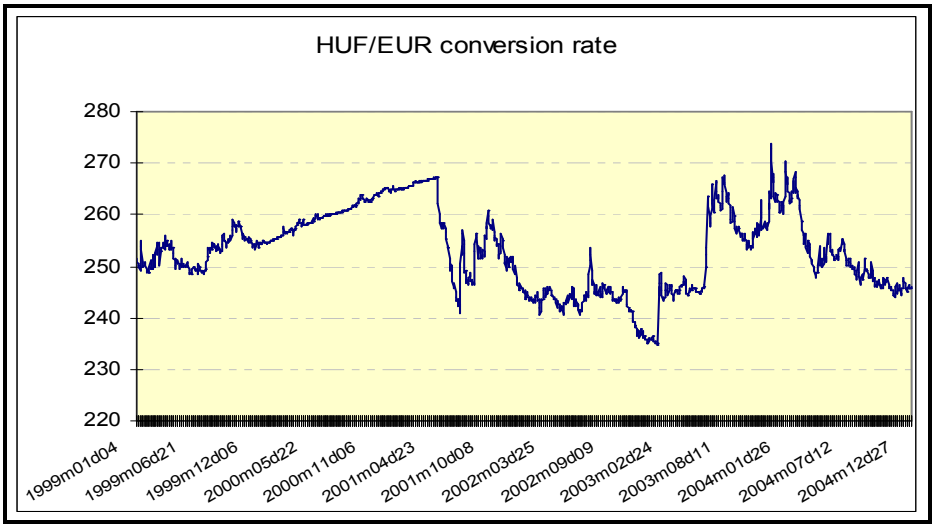
Given this background, Hungary tends to be relatively more vulnerable to the various consequences of exchange rate fluctuations than are the EMU members. The greater vulnerability arises from, among other possible factors, the pattern of consumption associated with relatively low incomes and the history of higher inflation. (According to the Engel's law, in countries of lower GNP the households spend relatively more on foods. For example, in 2004 the proportion of foods within consumption was 13.4% in the EU-15 average, whereas 18.2% in Hungary. *Source: EUROSTAT*)

It is generally accepted *(see Ho, C. and McCauley, R. N., 2003)* that even under a strict construction of inflation targeting, exchange rate considerations can be expected to play a more prominent role in an emerging market economy, given the

greater sensitivity of domestic prices to the exchange rate. Indeed, the experience of recent years shows that Hungary have suffered large exchange rate movements. Furthermore, these exchange rate movements have been associated with missed inflation targets and non-credible monetary policy.

Figure 1

Nominal HUF/EUR exchange rate



Given the importance of the exchange rate, there is all the more need to understand better the nature of exchange rate dynamics, and their impact on the economy, especially on agriculture. As a consequence, since a certain degree of flexibility is going to sustain even within the ERM-2, appropriate tools should be involved in hedging the FX risk.

MATERIALS AND METHODS

We start by discussing which definition of the exchange rate is convenient, whether it is nominal or real, and, if real, which price deflator is to be used. The nominal bilateral exchange rate is determined directly in financial markets. However, most theories of equilibrium exchange rate (see Driver and Westaway, 2004) refer to real effective measures of the exchange rate, albeit using different definitions of the relevant price index.

A generally accepted expression for the effective real exchange rate of country *i* (E_i) is given by

$$E_{it} = \prod_{j=1}^{n} \left(\frac{P_{it} S_{ijt}}{P^*_{jt}} \right)^{\varpi_{ij}}$$

where Pi measures the domestic price level in country *i*; P^*_j the foreign price level in country *j*; S_{ij} the relevant nominal exchange rate (defined as foreign currency per unit of domestic between countries *i* and *j*); and $\acute{\omega}_{ij}$ is the weight of country *j* in country *i*'s effective exchange rate index. As such an increase in E_i implies that the currency has appreciated, or alternatively that it has become less competitive.

Definitions of the real exchange rate include measures based on:

• *Consumer price indices.* This will be appropriate if we are concerned with a com-

parison of price levels for goods bought by consumers in different countries.

• *The prices of tradable goods or output prices.* This will be used if we are concerned with the price competitiveness of goods exported by an economy.

• *The price of an economy's exports compared to the price of its imports*. This gives a measure of a country's terms of trade, or the relative purchasing power of domestic agents.

• *Relative unit labour costs.* This will be appropriate if we are focusing on the cost competitiveness of an economy.

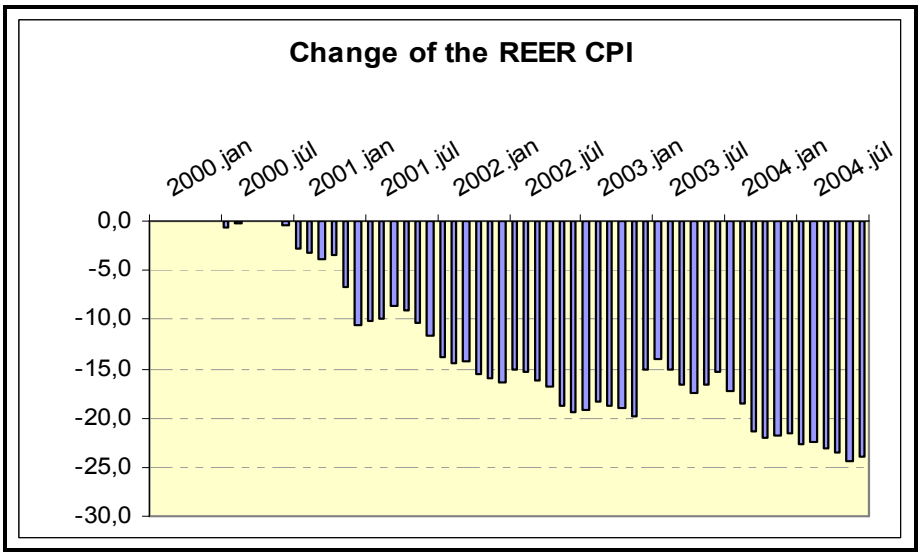
• *The ratio of tradable to non-tradable prices*. This is appropriate for assessing the real exchange rate within an economy.

Since these different price indices do not move together in the short run or even necessarily in the longer run, there is no unique measure of the real exchange rate on which it is appropriate to focus.

The Hungarian National Bank's statistics include real-effective exchange rate calculations, using the consumer price index (CPI) or the relative wage index. The former is relevant in the agriculture, with respect that the labour is immobile in this sector. The following chart illustrates the real-appreciation of the Hungarian forint during the period of 2000-2004. On the basis of January 2000, the forint – in real terms, deflated by the CPI – has appreciated by nearly 25%.

Figure 2

The real-effective forint exchange rate during 2000-2004



DISCUSSION: WHY THE FOREIGN EXCHANGE RATE MATTERS

Why do policymakers, enterprises, households, etc. care about exchange rate fluctuations? To begin with, the impact on prices through trade and expectations may be the most direct concern, particularly for inflation targeting economies. However, there are also other reasons for concern. These include the impact on the external sector, on the financial stability and on the functioning of FX markets.

i. The effect of exchange rate on inflation

Exchange rates can influence inflation through the prices of traded final goods and imported intermediate goods, and through their impact on inflation expectations. There exists a long-standing line of research on the influence of exchange rate changes on domestic prices – the so-called exchange rate pass-through. It is a stylised fact that emerging market economies tend to experience higher pass-through: they show a stronger linkage between the exchange rate and domestic prices, and a history of high inflation even accentuates this linkage. The reason is that prices of tradable manufactures and agricultural goods are comparatively more susceptible to the influence of the exchange rate than the prices of non-traded services.

If the focus of monetary policy is mainly on inflation, like in Hungary, then it is surprising why monetary authorities devote less attention to the evolution of the exchange rate and its influence on domestic prices.

ii. External sector

Besides their implications for inflation, exchange rate trends and uncertainty in general can also be causes for concern via their potential impact on the external sector. For example, an overly underappreciated exchange rate could affect an economy's external competitiveness (depending on price-sensitivity of the exporters and the importers), which could in turn impinge on the external balance, aggregate demand and growth. Persistence in such trends may, in the longer run, influence the incentives for investment and the allocation of resources among different sectors. In addition, exchange rate fluctuations may generate uncertainties that could impede trade.

These external sector consequences of exchange rate fluctuations are expected to be more relevant for economies that are more open to and dependent on trade and foreign investments.

iii. Financial stability

Exchange rate fluctuations can destabilise any economy's financial system; however, the connection between the exchange rate and the financial fragility is a complex one.

Concern for an unsustainable rise in the currency ultimately leading to financial instability is based on the following stylised sequence. A real appreciation associated with large capital inflows can go hand in hand with a rapid credit expansion and increase in asset prices, leading to an investment boom and asset price bubble. This overextension of the domestic financial system in turn makes the economy vulnerable to a slowdown – or even a reversal – of capital inflows. The real appreciation in the build-up phase can also adversely affect export competitiveness and investment in the external sector. A subsequent collapse of asset prices can erode the balance sheets of banks and non-banks alike. Moreover, a decline in the exchange rate in the face of capital outflows can hurt the solvency of firms with net foreign currency liabilities. These financial consequences can also have real effects via the "credit channel", as the decline in asset prices and credit quality makes it difficult for firms to borrow and invest. Wealth effects and unemployment can take a toll on consumption as the current accounts adjust via import compression.

iv. FX markets and interest rate levels

As discussed by prof. Magda, persistent trends in the exchange rate can be a cause for concern with respect to the

nominal interest rate. However, we emphasise our worries about short-term exchange rate volatility, which may increase the risk premium of forint denominated loans.

In small foreign exchange markets, excessive exchange rate volatility may contribute to illiquid market conditions, typically characterised by wide bid-ask spreads and sudden jumps in prices. Furthermore, small and illiquid foreign exchange markets may also be prone to suffer from the absence of "two-way risk" (ie when market participants tend to be on one side of the market with few willing to take the other side). Over the long term, illiquid foreign exchange markets can affect the feasibility and effectiveness of market-oriented operating procedures. Market functioning also affects the validity of information exactable from market exchange rates and related asset prices (eg market expectations, assessment and pricing of risk) for the purpose of monetary policies. From the private sector's point of view, the lack of market liquidity is likely to complicate – if not distort – agents' pricing, trading and risk management practices.

Small and open economies with relatively high government debt often face volatile short-term interest rates, as a consequence of the volatility of their exchange rates. In case of Hungary, higher risk premium consisting of country and currency risk increases the interest rate, that is, the cost of external financing.

v. Currency mismatch

Currency mismatch is a situation in which the profile of actual and potential foreign currency commitments is insufficiently matched by the profile of actual and potential foreign currency cash flow available at the corresponding time horizon. For example, the private sector in Hungary can hardly borrow for long run in domestic currency; so is stressed to apply for access funds in euros. So private enterprises, having financed by euro debts, are exposed to the movements in the euro-forint exchange rate due to the currency mismatch deriving from euro repayment obligation and regular forint revenue.

CONCLUSIONS

Finally we shall stress that not only the exchange rate level (besides other real-variables of the economy) is crucial to market agents in agriculture, but there is a certain point of the price and interest rate uncertainties generated by the foreign exchange rate movements.

One should be aware that the foreign exchange rate is a depending variable in itself, the end result of the competitiveness within the economy and the agriculture. In the short run, movements in the real exchange rate are determined by changes in the nominal exchange rate. In the medium term the real exchange rate is affected by indicators mainly associated with the balance of payments and by real shocks to the economy. Komárek, Čech, and Horváth (1) identified several factors that should most affect the Eastern European countries' nominal exchange rates prior to the eurozone entry. These are: (i) productivity growth and the wage-setting process in the economy; (ii) the way in which fiscal and monetary policy is pursued; (iii) the stability of the financial sector; (iv) the problem of external (endogenous) shocks; and (v) other factors.

Two main issues are involved in our conclusions. The first is why the exchange rate matters, especially for enterprises in agriculture. The second is under what circumstances and how they deal with the risk of exchange rate fluctuations in the context of non-credible monetary policy. We have found that agricultural enterprises, being more exposed to the influ-

ence of the exchange rate (in the absence of appropriate hedging instruments), suffer more from the enhanced FX risk of foreign trade and capital movements.

REFERENCES

(1) Bain, K. – Howells, P.: Monetary Economics – policy and its theoretical basis (Palgrave, 2003.) – (2) Baqueiro, A. – Diaz, A. – Torres, A.: 'Fear of floating or fear of inflation?' The role of the exchange rate pass-through (BIS Papers, No 19, Part 14; 2003. Oct.) – (3) Bordo, M. D.: Exchange Rate Regimes for the 21st Century: A Historical Perspective (EeNB Workshops no. 3/2004) – (4) Christl, J. – Just, C.: Regional Monetary Arrangements – Are Currency Unions the Way Forward? (EeNB Workshops no. 3/2004) – (5) Driver, R. L. – Westaway, P. F.: Concepts of equilibrium exchange rates (Bank of England Working Papers no. 248; 2004) – (6) Farkasné dr. Fekete M. – dr. Molnár J.: Az árfolyamrendszer változásának hatása az élelmiszergazdaság versenyképességére (Gazdálkodás, 2002.) – (7) Hagen, J. – Zhou, J.: 'Exchange rate policies on the last stretch' ('Monetary Strategies for Joining the Euro' edited by Szapáry Gy. – Hagen, J.; Edward Elgar, 2004.) – (8) Ho, C., McCauley, R. N.: Living with flexible exchange rates: issues and recent experience in inflation targeting emerging market economies (BIS Working Papers, 130/2003) – (9) Issing, O.: 'Considerations on monetary policy strategies for accession countries' ('Monetary Strategies for Joining the Euro' edited by.: Szapáry Gy. – Hagen, J.; Edward Elgar, 2004.) – (10) Komárek, L. – Čech, Z. – Horváth, R.: 'ERM II Membership – the View of the Accession Countries (Czech National Bank Working Paper Series, 11/2003.) – (11) Latter, T.: 'The Choice of Exchange Rate Regime' (Bank of England, Handbooks in Central Banking, No. 2; 1996.) – (12) Lohmann, S.: 'Optimal commitment in monetary policy' (American Economic Review, 82, 1992, 273–86. p) – (13) Mundell, R. A.: 'Capital mobility and stabilisation policy under fixed and flexible exchange rates' (Canadian Journal of Economic and Political Science' (Vol 29, No 4., Nov. 1963., 475-85. p) – (14) Rogoff, K.: 'The optimal degree of commitment to an intermediate monetary target' (Quarterly Journal of Economics, Nov. 1985., 1169–90. p) – (15) Román B.: Makrogazdaság – Vékony jégen (Bank és tőzsde, 2004. 11. szám)

ADDRESS:

Farkas-Fekete, Maria
professor
Szent István University, Economics Department
H-2103 Gödöllő, Páter Károly u. 1; Hungary
Phone: ++ <36-28-522000>; Fax: ++ <36-28-522000/1956>
E-mail: <mfekete@szie.gtk.gau.hu>

Sági, Judit
senior lecturer / PhD student
BBS College of Finance and Accountancy, Finance Department
H-1149 Budapest, Buzogány u. 10-12; Hungary
Phone: ++ <36-1-4696697>; Fax: ++ <36-1-4696624>
E-mail: <sagijudit@pszfb.bgf.hu>