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Financial liberalisation – The dilemmas of national adaptation

"Financial stability is a state in which the financial system, i.e., the key financial markets and the financial institutional system are resistant to economic shocks and is fit to smoothly fulfil its basic functions: the intermediation of financial funds, management of risks and the arrangement of payments."

(MNB)[1]

SUMMARY: This study explores two of the main issues of global financial processes: the economic essence of the benefits gained from the increased liberalisation of international capital flow, and the issue of "adequate" exchange rate systems as closely aligned with the increased international capital flow as possible. Conclusions are in part theoretical and in part practical. The study confirms the statement that the liberalisation of capital flow and the exchange rate policy to be realised continue to be highly problematic to this day. There is no uniform and theoretically well-grounded position that could properly describe the liberalization of capital transactions or the adequate exchange system to be implemented from all possible angles. The so-called 'impossible trinity', the peculiar difficulty of the simultaneous following of foreign and domestic goals is increasingly present in small open economies such as the Hungarian economy for example. Due to the high degree of international financial integration, domestic and foreign loan demand and upturn cannot be regulated by such traditional tools as interest and fiscal economy stimulating measures, that is, by such simultaneous measures as point in the same direction and do not act against one another. This is increasingly reflected in Hungary by the difficulties encountered in the country's interest policy and HUF and foreign currency lending. At the same time, current economic policy cannot shy away from the obligation to find a balance between domestic and external goals that can be maintained in a changing global financial environment. However, there is no "royal road" for economic policy. This statement is true for the role played by the central bank as well, which is aimed at the management of banking system-level risks caused by the inflated Hungarian foreign currency debt.

KEYWORDS: financial liberalisation, international capital flow, exchange rate system, exchange rate policy, loan demand, forint-denominated loans, foreign currency-denominated loans

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Between 2007 and 2010, ensuring financial stability in the world economy as a whole (in small, medium and large countries alike) tested the powers of financial authorities; and the management of the shocks arriving in multiple waves proved to be particularly challenging. These difficulties, however, did not come about suddenly: the origins of these problems can only be partly attributed to financial globalisation, a process that has been ongoing for three decades now. The European Union has also experienced significant changes as illustrated by the statement of *Jean Claude Trichet*, President of the European Central Bank (ECB):

"Too many countries amongst the 16 members behave like national economies, but national economies no longer exist".[2]

Is it possible though to simultaneously follow contradictory domestic and international goals? This is the fundamental question to which the following analysis provides – an essentially negative – answer to. The first section gives an overview of the basic cases of adjustment in the exchange rate and interest channel in a small open economy. The second section examines a few aspects of national adaptation to global financial processes. Part three addresses the peculiar case of the "impossible Hungarian trinity".

FIXED OR FLEXIBLE EXCHANGE RATES?

The conclusions that can be drawn from modern economic theories describing exchange rate systems and put into practice are far from being uniform, and still point in several directions depending on several complicating factors. Even the International Monetary Fund (IMF) does not have uniform position: neither with regard to the exchange rate aspects of the exchange rate regimes it represents and thus recommends, nor to those of the exchange rate aspects of recommended protection mechanisms or financial ancillary systems.[3] The choice between the available exchange rates depends on how vulnerable a country is to external financial events and shock effects caused by world economic developments, and on how closely it is attempting to fit into the developed international capital and money market network that has integrated developed industrialised countries into a mostly unified system.

It is a basic consideration that the changes in external conditions and the external changes (advantages, compulsions) in adapting to price changes and the changes in the commodities and international money markets in general may be conferred

- either through flexible exchange rates, i.e., through the changes in the exchange rate of the domestic currency;
- or through fixed exchange rates, i.e., by transferring them onto the internal money market and prices.

As a result, the foreign currency exchange rate or the internal price mechanism is the intermediary mechanism, whereby the change in internal demand or money supply will apply. Both basic versions, i.e. both completely flexible and fixed exchange rate systems have their own advantages, but naturally their costs as well. The greatest risk of floating or flexible exchange rate development is that currency markets show great tendency to overshoot or overreact even if the direction of exchange rate movement follows correct economic logic, but its rate is considerably exaggerated compared to the level that can be maintained on the long run. However, within a fixed system, protecting the predetermined exchange rate level may come at a high price for the central bank, because purchase of domestic currency for purposes of protection may lead to a significant decrease in foreign currency reserves; and its isolating effect on internal price level is particularly damaging as it might curb upturn and generate inflation. Stubborn persistence towards fixed exchange rates could at the same time prove to be a very expensive matter.

The cardinal problem of the difficult choice between fixed or flexible exchange rate regimes is perhaps best illustrated with two simple models. The first is a classic approach representing 'purchasing power parity', which despite its simplicity still sheds light on the basic conflict, namely the issue of closely guarded sovereignty of national monetary policies (national money creation and inflation control) endangered by global monetary processes. The second model uses a modern,

portfolio-oriented approach to illustrate the same thing: the delicate and rather complicated task of balancing out the external financial processes and established internal economic equilibriums and that of taking many aspects simultaneously into account. The study presents the main factors of the above complications.

Let us take a look at a world economy that is made up of two countries (A and B). Suppose the basic equation of the quantity theory of money (Fisher equation) in country A is the following:

$$M^A V = P_A Y^A \qquad (1a),$$

and in country B

$$M^B V = P_B Y^B \qquad (2a),$$

where M^A, M^B stand for money supply; P_A, P_B stand for price level; and Y^A, Y^B stand for output (volume) in the two countries.

To further simplify matters, we can assume that on national markets the velocity of circulation is V, and its reciprocal value, the propensity to hold cash is $\frac{1}{V} = k$, therefore it is the same in both countries.[4]

Let us also assume that the exchange rate of the currency of country B in country A is .

$$E = \frac{P_A}{P_B}$$

As a result, the following two expressions may be given for the money supplies of country A and country B:

$$M^A = k P_A Y^A \qquad (1b)$$

$$M^B = k P_B Y^B \qquad (2b)$$

Since

$$E = \frac{P_A}{P_B},$$

this means that

$$E P_B = P_A,$$

therefore

$$M^A = k E P_B Y^A$$

$$M^B = k P_B Y^B$$

Let us take the quotient of (2b) and (1b).

$$\frac{(2b)}{(1b)} = \frac{M^B}{M_A} = \frac{1}{E} \times \frac{Y^B}{Y^A}, \qquad (3a)$$

therefore

$$\frac{M^B}{M_A} = \times E = \frac{Y^B}{Y^A} = \text{constant} \qquad (3b)$$

The resulting expression (3b) shows that the product of the quotient of the two countries' money supply and the exchange rate is equal to a constant. According to the basic assumption of the quantity theory of money, the movement of money supplies does not impact output, real output (here: Y^A and Y^B) or their quotient. Therefore, at the given output level the above expression is true. The graphic representation of the identity set out in equation (3b) is a hyperbola (DD) *(see Chart 1)*. Every point on this hyperbola represents an equilibrium exchange rate, because, if one takes any point on the DD it is true for that point that the distance from one axis (exchange rate) multiplied by the distance from the other axis (money supply ratio) is (the ratio of the two outputs) constant.

Therefore, the DD curve is the arithmetical representation of the points that represent the demand side equilibrium exchange rates in country A for the currency of country B. Under the presented conditions, every point on curve DD represents an equilibrium exchange rate. The SS vertical line indicates the relative (offered to country A) supply of the currency of country B in the given period. Therefore, the equilibrium exchange rate E_0, represents the "interchangeability" of the price levels between the two countries, that is, the

Chart 1

THE TRADITIONAL (PURCHASING POWER PARITY BASED) CONCEPT OF THE DEVELOPMENTS OF EXCHANGE RATES AND MONEY SUPPLY
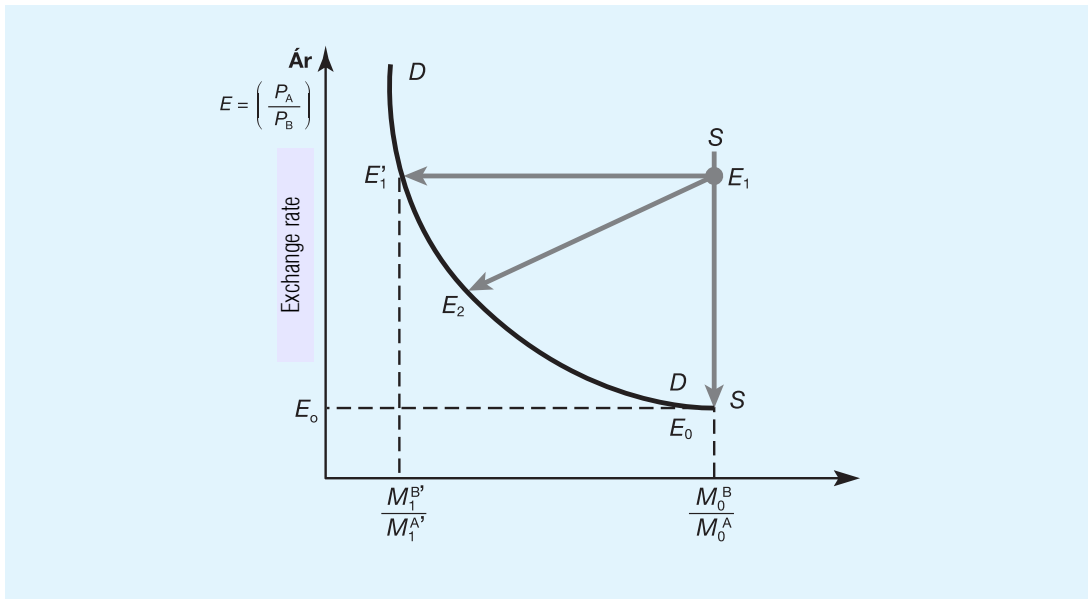
Source: author's own work based on research

conversion or the so-called *purchasing power parity*. Considering that the ratio of outputs remains the same in the model (Y^B/Y^A constant), adjustment from the original disequilibrium (for example from E_1) can occur in any of the following three ways:

- either from E_1 back to E_0;
- or from E_1 to E'_1,
- or as a combination of the two, from E_1 to E_2, or in any point of DD between E'_1 and E_0.

If adjustment is made from E_1 to E_0, then changes will occur only in the flexible exchange rates change and not in the national money supply and the ratios (quotients) thereof.

The adaptation process in this simple case is that as a result of the currency devaluation country A wishes to sell more to country B and buy less from country B. As a result, a permanently positive balance of trade is created in A. Eliminating this excess is only possible through the revaluation of the currency of country A,

through return from E_1 to E_0. The opposite is happening in country B; with its revaluated currency country B wishes to buy more and more from country A and wants to sell less there. This will create a balance of trade deficit in country B, and in order to decrease this deficit the currency of country B must be devaluated. The processes beginning in the two countries strengthen each other.

Adjustment from E_1 to E'_1 is exactly the opposite of this. I.e. there is no change in the exchange rate but there is change in the money supply quotients related to the 'equilibrium' exchange rate. In a standard situation, the acceptable level for (3b), i.e., E'_1 should be restored through having country B reduce the money supply offered to country A in proportion with what is justified by E'_1, thereby pushing SS to the left. It is, however, quite obvious that this is not the only possible route, because the ratio that represents the equilibrium ratio of money supply under E'_1 can result from sev-

eral changes or different combinations, for example, by only changing the denominator or the numerator, or both, or the various combinations of the two. This possibility already shows the different types of adjustment presenting in reality.

The most often used and most realistic alternative for practical application in this model is the intermediate or so-called combined adjustment, when the exchange rate changes from E_1 to E_2. This allows for the movement of money supply as well as the exchange rate. It is, however, not difficult to see that national monetary policies generally do not favour scenarios, where the national money supply needs to be changed (increased/decreased) substantially as a result of the exchange rate changes, because the exchange rates thus created will break the interest levels considered desirable on the domestic market and dislodge the internal equilibriums. Practice, however, seems to point out that the bodies in charge of national monetary policy (governments and central banks) cannot altogether avoid the use of more complicated alignment variants.

Even though the assumptions of the presented purchasing power parity based model only tie market movements to the transaction function of money and currency and not to the portfolio based, property item function, which is the so-called *asset function* of money and currency. It is still perfectly well-equipped to depict the diversity of possible variations of re-adjustment from a disequilibrium and the non-obvious nature thereof even when the currency follows only the movement of international commodity trade items and does not function as an international property item or intermediary.

If the currency is used to intermediate between real interest difference based portfolio investment or even speculative transactions, then the adequate exchange rate system and especially the long-term mechanism thereof can be the result of a less obvious theoretical or practical choice. This is also supported by the fact that over the course of the last twenty years, global financial crises have stricken countries with floating and fixed exchange rates alike. Monetary independence, capable of shunning international financial processes (particularly in the case of smaller, less developed countries) is more illusion than reality. For this reason, these countries must be particularly cautious in choosing their exchange rate policies. World economic events of the last thirty years have clearly proven that an exchange rate system in itself, be it flexible or fixed, provides no protection against a significant external shock. The financial strength, extent of reserves, net debtor or lender position of an economy is much more significant in terms of security and alleviation of outside pressure than the existing exchange rate regime itself.[5]

FINANCIAL LIBERALISATION AND FLEXIBLE EXCHANGE RATES

At the turn of the millennium, international capital movements in the world economy were realised within increasingly liberal frameworks. National measures regulating the order of transactions influencing the capital balance and the current balance of payments stipulated more and more liberal and permissive conditions for international capital flows. The historic perspectives of the gradual and significant liberalisation of the obstacles standing in the way of international capital flow are illustrated by *Charts 2 and 3*.

A substantial financial liberalisation process already started in the developed industrialised countries as early as in 1973, which eliminated the regulative shackles restricting the capital balance transactions and eased the export deposit system. These steps had already liberated international payments to a great extent by
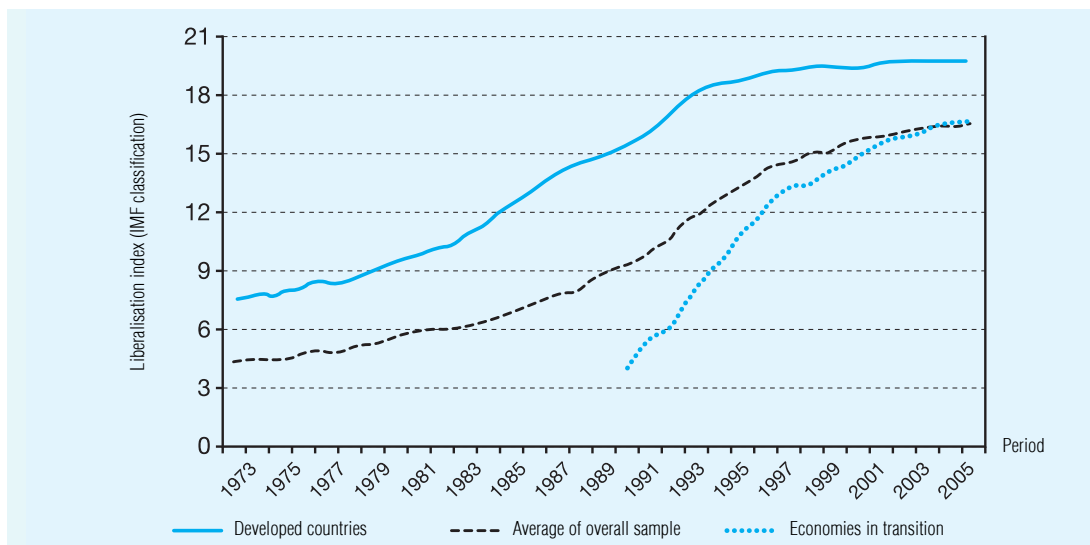
Chart 2

THE LIBERALISATION OF INTERNATIONAL MONEY CIRCULATION IN DEVELOPED INDUSTRIALISED COUNTRIES (OECD), 1966–2008
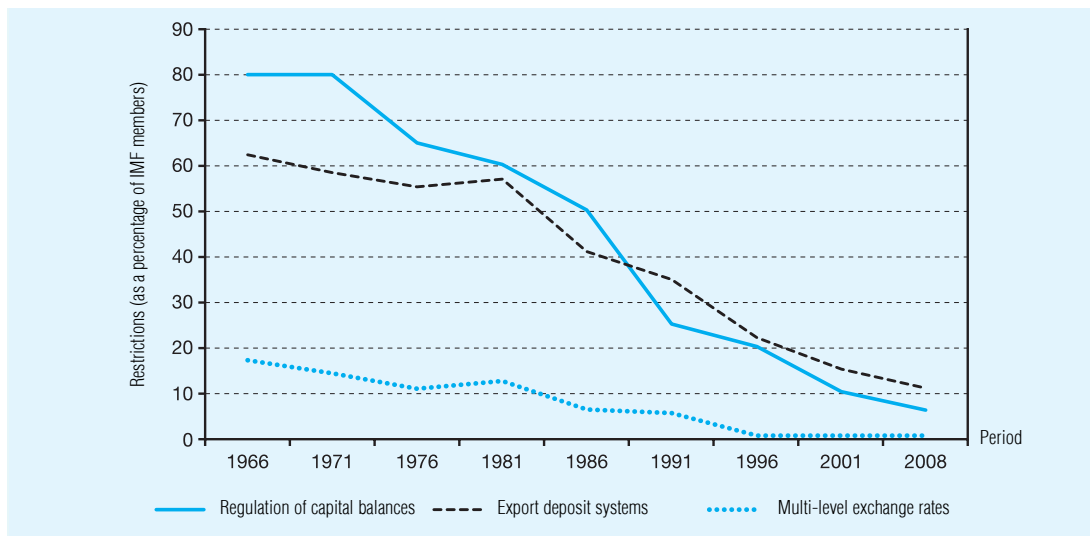
Source: author's own work based on research

Chart 3

FINANCIAL LIBERALISATION IN THE MAIN REGIONS OF WORLD ECONOMY, 1973–2005*

Source: Leaven-Valencia (2008): p. 27

* Legend: the IMF working paper referred to distinguishes six country groups: developed countries, emerging countries and South East Asia, Latin America and the Caribbean, Sub-Saharan Africa, economies in transition and Central-East-North Africa. Liberalisation was measured in 7 categories (on a scale of 0–3) – namely the extent of loan control, interest rate control, entry barriers, banking regulation, privatisation, the openness of capital balance, freedom of securities markets. On the basis of the above, the measured maximum score in terms of liberalisation could be 21 (7x3=21). Overall, there were 2671 observations made in these categories, therefore the sample was sufficiently large. As the diagram clearly shows, most of the active regions of the world economy involved in international capital transactions implemented strong liberalisation measures in the 1973–2005 period. The average of the total sample of 104 countries (marked with an arrow in the middle on the diagram) reached 17 by 2005, meaning 17/7=2.4 per category, which is clearly liberal on a scale of 0–3. Although this database, at least in terms of the scores on the 0–3 scale, shows signs of (a stretch) distortion, this is still one of the best and most comprehensive surveys available that takes quantitative and qualitative indicators into account.

the middle of the 1990s (Chart 2). These steps boosted the magnitude of the turnover of international capital flows with a particular increase in money movements in the monetary channels within the OECD countries.

The process of liberalization went on, gaining further momentum until the middle of the 2000's, and financial modernization in general meant opening finances even more. This process reached other regions of the world economy, including the majority of developing and emerging economies as well as the CIS countries, which were labelled temporary by the International Monetary Fund.

The next Diagram 3 shows the dynamics of liberalisation or rather financial globalisation in the 1973–2005 period, which compares the liberalisation tendencies of monetary markets in the major regions of the world based on a so-called *"liberalisation index"* (see the notes below tof Chart 3). The message of the diagram is fairly clear. The world economy has undergone substantial general financial liberalisation in the examined three decades. This large-scale turn to the markets has represented both the winding up of public audits and the opening towards external capital flows.

Liberalisation has had a number of positive effects, but has also immediately brought to light never before seen economic policy and adaptation conflicts. The next part of study will address the theoretical grounds of the understanding of these dilemmas of a new type.

The Fleming–Mundell model (hereinafter referred to as F–M model) is still one of the best frameworks for the understanding of the national economic policy problems caused by global financial processes, which is nothing less than a theoretical breakthrough and which approximates the realities of the situation for developed industrialised countries the best. We in this study regard as basic premise that version of the model developed by American and Canadian economists, which presumes flexible

foreign currency exchange rates and free capital movement. The question is: What does this model say about the conflict of domestic and foreign corrective measures?

It is advisable to begin with the following basic premise: international capital flow is, in essence, moved by the difference between national and domestic real interests; whereas currency exchange rates are shaped by the market. In such a theoretical framework, the monetary and fiscal toolset of the financial policies pursued by domestic financial authorities can only operate with limited efficiency. If the domestic real interest rate increases as a result of the actions of the central bank, that will increase the influx of capital and hinder the outflowing of domestic savings, which, in turn, will have a positive effect on the balance of payments. In a completely liberalised environment, there can be two basic scenarios within the theoretical structure of the F–M model (as well as in reality).

❶ Assuming floating or flexible exchange rates, the uncertainty of monetary policy measures will increase with respect to their final outcome.

❷ Financial government bodies can still use the tools of monetary and fiscal regulation, although to a limited extent, to bring about internal and external equilibrium without intending to have a strong and direct influence on the exchange rate.

These are general observations, which entail a number of theoretical and practical complications as well as exceptional situations. However, these will not be detailed here.[6]

And now the next part of the study addresses the internal logic of the F–M model.

It is a basic assumption that the standard case in the model is a sufficiently small country, whose own monetary processes cannot have a significant impact on the price and income circumstances and interest rates of other countries. The internal price level in the model is

given and fixed, while the money supply is controlled and interest rates are set by the central bank. In addition, from the viewpoint of domestic investors domestic and foreign bonds are imperfect substitutes of one another, that is, if the differences between interest rates changes, only a part of investors will switch from a domestic bond to another foreign bond. Therefore, increase in demand for a bond with higher real yield does not result in the elimination of existing difference in yields. The central bank can influence interest levels with open market interventions (OMI). It can increase the money supply and reduce the outstanding bond portfolio with buy operations, and reduce money supply and increase the yields on domestic bonds with sell operations. A constant interest rate difference results in constant capital flow in the F–M model. Assumption: a domestic central bank increases interest rates; this will always mean increasing real return rates, because the price level is fixed. Afterwards foreign demand for domestic bonds will increase and as long as the difference

is there, foreign investors will be increasing the number of domestic bonds in their portfolios. That is the basic scenario. This is illustrated in *Chart 4.*

The KK line shows the correlation between domestic and foreign interest rate levels and capital flows. On the vertical axis the domestic and foreign interest rate levels are the variables under examination, whereas on the horizontal axis the extent of the capital influx and outflow are variables under examination.

If the foreign exchange rate is Or^*, then in terms of domestic interest rate levels r_1 and Or_2, there can be OK_1 capital influx or K_2 capital outflow. The slope of the *KK* line depends on the extent of the substitutability of domestic and foreign bonds. When substitution is almost complete, the *KK* line is close to horizontal. However, assuming perfect substitutability, the central bank would lose supervision over the control of interest rate levels. The greater the degree of substitution, the greater degree of central bank intervention is required to maintain the existing interest rate difference and

Chart 4

INTEREST RATES AND INFLUX OF CAPITAL IN THE F–M-MODEL
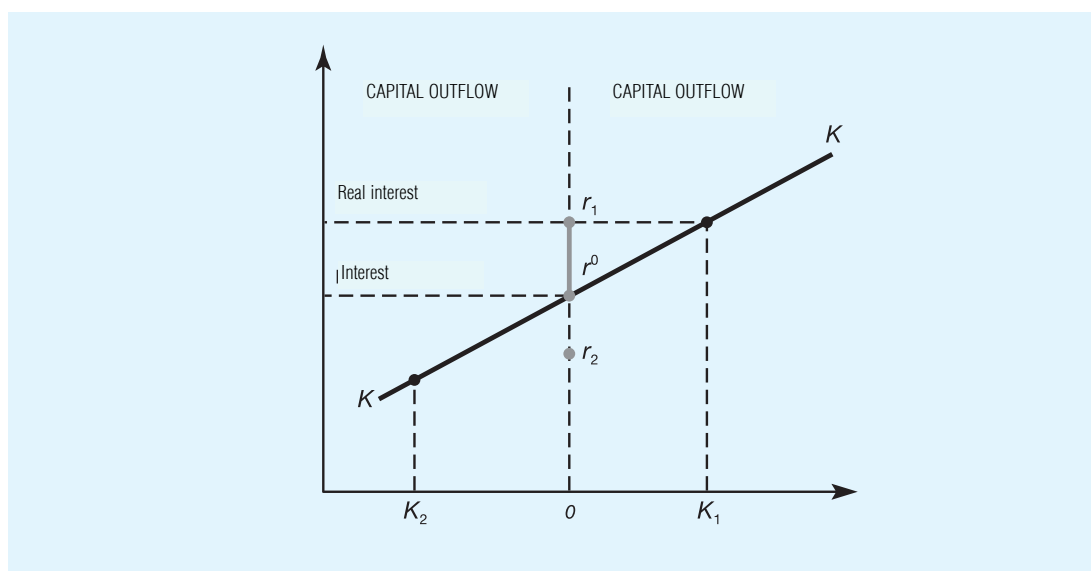
Source: author's own work based on research

thus the influx of capital. The degree of substitution depends on the willingness of investors to take risks. The assumption of the F–M model, according to which capital flow is continuous, has been frequently criticised. Still, it is more than suitable for the purpose of short-term analysis and for highlighting the limits and possibilities of domestic financial regulation as well as global regulation.

CAPITAL FLOW AND EXCHANGE RATE FLEXIBILITY

How do capital flows impact exchange rates? The short answer is: the more sensitive capital flow is to differences of interest, the more sensitive the reaction of exchange rates. The model of the logic of changes is illustrated by *Chart 5*.

On the vertical axis, the development of real interest rate; on the horizontal axis the exchange rate of national currency is the variable, with the greater R indicating devaluation.

Therefore, F_iF_i line is negatively sloping, because it is the arithmetical representation of the points that ensure current account equilibrium depending on the exchange rate and interest rates. The Y_iY_i-line , however, is the arithmetical representation of the points which stand for the equilibrium of internal money and commodity markets at a given interest rate level. However, this line is positively sloping, because with the devaluation of national currency (R increases) domestic consumption shifts its demand towards national products – this shift can only be compensated with an interest rate increase, at least under unchanged fiscal conditions.

A lower interest level, r_1, therefore, can have two types of effects on the balance of payments.

▸ It has a negative effect on the current balance of payments as it increases internal accumulation and imports, and also has a negative effect on capital balance as domestic investors turn to foreign bonds. For the above two rea-

Chart 5

THE EFFECT OF FLEXIBLE EXCHANGE RATES ON MONEY AND COMMODITY MARKETS IN CASE OF INTENSE CAPITAL FLOW
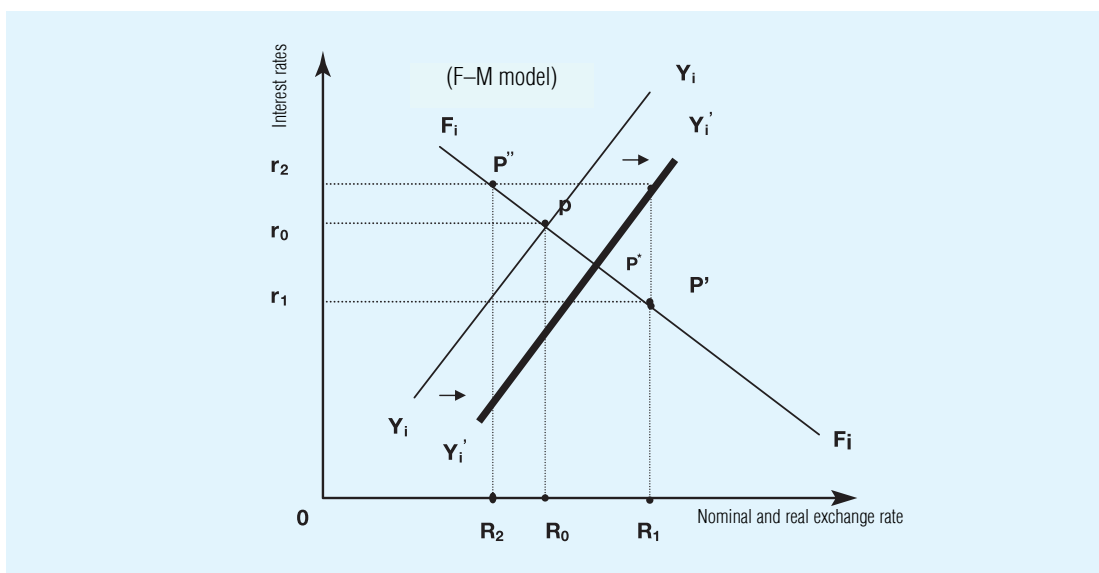
Source: based on Kenen (1989)

sons, the sloping of the F_iF_i-line is determined by two factors, which are not tangential to the Y_iY_i line. These are the marginal rate of propensity to import and the rate-sensitivity of capital flow. The increase of any of these two factors decreases the sloping of F_iF_i. If domestic and foreign bonds can be perfectly substituted – a rare theoretical case – then F_iF_i is horizontal and the interest rate difference is 0, i.e. domestic and foreign interest rate levels are identical.

▸ Assuming there are flexible exchange rates, the currency market automatically switches to its own new equilibrium in the present – which the futures rates also instantly express in existing time spans. In the end the new currency market equilibrium also changes the existing external current payment position: in the short-term devaluation has a negative effect on this position, and in the long-term it can improve it, but experience shows that in the case of small and medium open economies it worsens the position. At this point, monetary policy is required to restore internal commodity and money market equilibrium to the balance it considers appropriate.

It is, however, worthwhile to think about that if, in the context of currency exchange rates, F_iF_i is significantly more sensitive and flatter than Y_iY_i – i.e. it is much greater, for example it will react to devaluation by shifting along the line; though in the opposite direction, since it moves in the opposite direction to exchange rate change as it is negatively sloping – then increased caution is advisable in respect of all measures of the central bank. Namely if the central bank does not take into account the exchange rate changes generated by its own monetary policy that impact foreign investors, then it exposes the economy to explosive and unwanted exchange rate changes and income fluctuations. The dilemma concerns the balancing of the expectations of foreign and domestic partners assessing future processes created in

the present. This is what caused, as we will later see, the main problem in Hungary as well.

In order to understand this, we should think the following over.

In the case of a positive, i.e. strong upturn, significant growth can be expected in domestic labour input which forces internal equilibrium income upwards and to the right. As result, the Y_iY_i line shifts to the right ($Y_i{'}Y_i{'}$). At this point, in the absence of a further push, aggregate demand (employment) can only be increased with an interest rate decrease. If as a result of said interest decrease $0r_0$ becomes $0r_1$, the resulting weakening real exchange rate – due to the import price increase – generates instant inflationary pressure on Chart 5: the position of point $P{'}$ which is under the $Y_i{'}Y_i{'}$. As a result, monetary policy should move in the opposite direction and be restrictive, and a higher interest rate would be required. This is only possible if $0r_1$ becomes $0r_2$ and the currency is revaluated and rises to R_2. This is equivalent to a new exchange rate that is "unusually" strong under the given circumstances. Due to the inflationary pressure the central bank is forced to make modifications and the specific interest rate measures will be P, $P{'}$, $P{''}$ and so on. The point is that the economy is not edging closer to point P^*, where the originally shifted $Y_i{'}Y_i{'}$ meets the unmoved F_iF_i, rather the opposite, it is moving further away. This balancing between outside expectations and the needs of the internal market causes immanent instability in the financial system. At the same time this uncertainty does not mean that flexible exchange rate cannot be used in a practical exchange rate system, but that the central bank cannot pursue domestic equilibrium objectives only. Currency exchange rates, therefore, need by all means to be taken into account, too. Otherwise the trepidity of the exchange rate may cause serious domestic imbalances. The most important message of the F–M model, valid to date, is the denial of a

policy course aiming to protect the currency exchange rate, but at the same time avoiding any intervention into its development, that is, the denial of a policy aiming to maintain a published target exchange rate, which supports such a policy of the central bank as does not intervene into the development of the exchange rate.

However, the arising question seems fair enough: "why can't we use fiscal tools exclusively to maintain internal equilibrium?" Without reviewing related details and complications, we can say that in the case of intense international capital flow and flexible exchange rates fiscal policy as an efficient regulatory tool is also doubtful – in theory – except where it concerns countries that belong to the same currency area (such as the euro area).[7] However, practice in such countries is also problematic.

As a general conclusion we can refer to the logic of the F–M model: assuming there are flexible exchange rates, depending on the intensity of capital mobility the significance of monetary policy increases and the efficiency of fiscal tools decreases. Assuming there is complete or perfect capital mobility, the power of fiscal upturn effect completely disappears. Participants of the international financial system (national states) feel that they are in danger of loosing the economic policy playground within the fiscal toolset and budgetary mechanisms in general, as they feel that with respect to the future this would mean the abandonment of national sovereignty.

NATIONAL ADAPTATION – „THE IMPOSSIBLE TRINITY"

The equilibrium logic also contained in the F–M model is quite merciless: those nationally responsible for economic policy that intends to be in harmony with global money markets and for financial policy have to concentrate on three objectives at the same time, the simultaneous management of which is extremely difficult, practically impossible. These three objectives are the following.

▸ Each national government desires sovereign national money policies (protection of price levels and upturn).

▸ Each national government wants regulated and stable domestic financial markets that can be suppressed in time and can be restored by their own hand with adequate force in case of emergency.

▸ All national governments want to take advantage of better access to and placement of funds, loans as well as the resulting improvement in efficiency and prices as offered by the integration of international capital markets.

The equal pursuit and simultaneous achievement of all three goals however is simply not possible. Relevant literature refers to this dilemma as the *"impossible trinity"* as any two of these objectives is working against the remaining third.[8]

The gist of the problem therefore is the fact that selecting and following two objectives of the "impossible trinity" can only be realised at the expense of the third. If for example, a government wants to regulate its national money and capital markets adequately, but also wants to regulate (incentivise/discriminate against) the use of foreign funds that will no doubt have a damaging effect on the increasing or just adequate integration into the fabric of international capital markets. The price to pay for national "independent" regulation is renouncing the benefits to be gained from global money markets and the exclusion of resources that are either cheaper to get there or available only there. Only few governments can afford this luxury.

Or if national monetary policy wishes to stay autonomous, but at the same time attempts to serve the interests of increased international

capital market integration then – like it or not – then the potentially strict or perhaps loose, but definitely nationally unique regulations and expectations of the internal market must be abandoned, as this is exactly what the liberalisation of international capital flow requires.

Last but not least, if a national decision accepts the way banks operate globally and chooses international integration as the norm on which its domestic financial regulatory system is based, then of the three objectives mentioned earlier, it will have to give up the objective of the autonomous influencing of the domestic market – as a type of sovereignty – and will have to accept the majority of the regulatory principles and rules of the international money markets. It was exactly this, namely the conflict of domestic and foreign objectives, that was responsible for the majority of grave financial complications experienced in Hungary, too. However, this will be addressed later.

GLOBAL FINANCIAL REGULATION?

The unpleasant negative shock-like phenomena connected to globalisation did not begin today. In their comprehensive empirical study, *Laeven* and *Valencia* (2008) summarised and systemised every type of crisis that occurred between 1970–2007 that fundamentally originated from banks, but grew into system-level crises. Foreign exchange crises were already grave problems in the 1980s (even by today's standards). Even though the majority of bank crises took place at the beginning of the 1990s, the peak of debt crises dates back to the beginning of the 1980s. The results of the IMF working paper referred to (Laeven – Valencia (2008)) are more than remarkable: the 42 bank crises occurring in the examined period between 1970–2007 were in 55% of the cases also followed by foreign exchange crises; the number of sovereign debt crises was lower in

comparison; and more than half of bank crises were accompanied by twin crises (foreign exchange and bank crises). However, in close to 11 (!) percent of cases, a simultaneous triple crisis (foreign exchange, bank and sovereign debt crisis) was present.[9] Both the greater frequency of financial crises, both the international risk of contagion make the establishment of a reformed international financial system an urgent priority; a system that would provide new foundation to and "modernise" the Bretton Woods system.[10]

Imperfect markets, the problem of the flow of information, the moral risks that have become exceedingly complex internationally did not take long to show the true "price" of liberalism, especially in extreme situations. The 2008–2009 crisis showed the power of the inertia of this financial globalisation trend entailing unpredictable risk phenomena and spanning several decades. The question as to whether the world has become a much riskier place in the wake of financial globalisation is a truly relevant one and requires immediate answers. *Rajan*, *G. Raguram* (2005)[11] answered yes in his theoretically very well-grounded work. In this work of his – suddenly cited very often after the crisis – Rajan had shown well before the events of the fall of 2008 and the collapse of Lehman Brothers that the international financial system, capital and money markets had generated new risks, that nobody saw and nobody could assess but existed nonetheless. The essence of his argument is that while financial liberalisation brought significant benefits, such as borrowing options at lower interest worldwide that was embodied in extended upturn and increased global consumption, it also created new types of risks.

However, coordination problems; incentive forms that pointed into adverse directions; various portfolio management difficulties essentially due to distortion of information – principal/agent, moral hazard and adverse selection

effects we know so well from micro-economics – were all present. An even more severe complication was represented by the fact that the diverse set of cross-border risk management and risk distribution problems created a large so-called "tail end" or low probability risks manifesting under extreme circumstances in the international financial system. Though the possibility of the occurrence of this "tail end" event was small, but real, the existence of the problem, as a new element of system risk should at least have been taken into account.[12] Despite the fact that it was not possible to foresee the emerging crisis on the basis of this argument, steps could have been taken much sooner to prevent and avoid the deepening of the crisis, the swift financial meltdown or the global spreading of the "plague of mistrust" that developed on the interbank lending market. The argument does not question the significance of financial liberalisation itself or its essentially positive attributes, it rather sheds some light on the existence of global risks and, accordingly, the necessity of their continuous management.

The state and regulatory authorities exhibited unpredictable behaviour on the world's most developed market (USA) as well and this lead to a global loss of trust in banking systems.[13] We also cannot hide the fact that there are indeed statistics that support sceptical opinions on capital liberalisation which might also make the independent observer think.[14] It might also be worth mentioning that we cannot find any decidedly closed or verifiable logical relation between capital mobility and economic growth. Moreover, according to empirical studies, particularly *Dani Rodrik's* (Harvard University) research, there is no clearly measurable relation (strong, adequately significant correlation) between the two factors.[15]

In global economic processes after the turn of the millennium and in particular following the 2008 world economic crisis, economies dubbed by the industry as "emerging" markets represent special cases. These are economies whose – young and relative to capitalisation small – stock and bond markets can be particularly vulnerable in times of large-scale international crises. We should definitely observe that categorisation as "emerging" groups countries with populations of wholly different levels of development and production potential, simply on the basis that in these countries it seemed worthwhile to apply greater degree of portfolio or perhaps direct foreign investments, because the growth potential of these stock and bond markets in the 1990s as well as the following decade up to 2010 was significantly greater than the world economy average.[16]

The most important common weak point of this country group – with perhaps the exception of China and Hong Kong – is the fact that the size of their money markets compared to the average turnover of global money market payments is small. While this is the case, currency risks shall continue to be regarded as significant and in no way temporary. Joint actions of a few larger global investment funds may erode the resistance of these markets. A larger foreign buyer or seller for that matter could topple stable money and capital market trends in a northern or southern direction.[17]

EXTERNAL SHOCKS, FOREIGN CURRENCY EXPOSURE: THE DIFFICULT CASE OF HUNGARY

In the following section we will be examining the role of external shocks, mainly with respect to the Hungarian economy. Theoretical and applied works all emphasise the role of the influx of capital in external economy becoming overly indebted [see for example Ötker-Robe et al. (2007) and Erdos (2010)]. It should, therefore, be mentioned that the intensive influx of capital into Hungary in the mid-2000s

was mainly because of the better economic out-looks of the country that was based on the lower risk premium, in turn, stemming from the structural reforms related to Hungary's accession to the European Union and to the stabilization of the macro-economy.[18] Later on, incoming capital can instead be explained by the decreasing interest rates of industri-alised countries and the increasing liquidity of the world economy.[19] Another factor was the swift increase in the bank financing needs of the private sector, which were covered by for-eign interbank funds. These changes were not just important from the aspect of attracting an influx of capital as they also led to other ten-sions. One of the most significant of these was the "dilemma of the impossible trinity": keep the gates open for capital flows in such a way that no disturbance is created between the simultaneous pursuit of internal and external economic policy objectives: for example in the

foreign currency loan supply for the private sector (retail+corporate) and the budget, as well as the growth of the internal market in sec-tors that require loans (particularly in house constructions). The exchange rate flexibility of the Forint may – in theory – help ease the ten-sion between internal and external economic goals.

However, in practice this is very difficult. In theory, greater exchange rate flexibility can indeed resolve tension between multidirection-al economic policy goals, trusting that revalua-tion swallows the effects of the influx of capi-tal.[20] However, in reality exchange rates have only limited adjustment capabilities, and this was the experience observed by most East-Central European countries. The lasting volatility of currency exchange rates *(see Chart 6)* did not help the economy's stability. Quite the opposite, the shocks coming in through the exchange rate channel were unable to impact in

Chart 6

FOREIGN EXCHANGE MOVEMENTS OF CENTRAL AND EASTERN EUROPEAN COUNTRIES
Between the beginning of 2008 and Q3 of 2010 [changes of currency exchange rates against the euro during the crisis in Central and Eastern European Countries (HUF, CZK, PLN, RON) as percentages]

Source: Thomson Reuters

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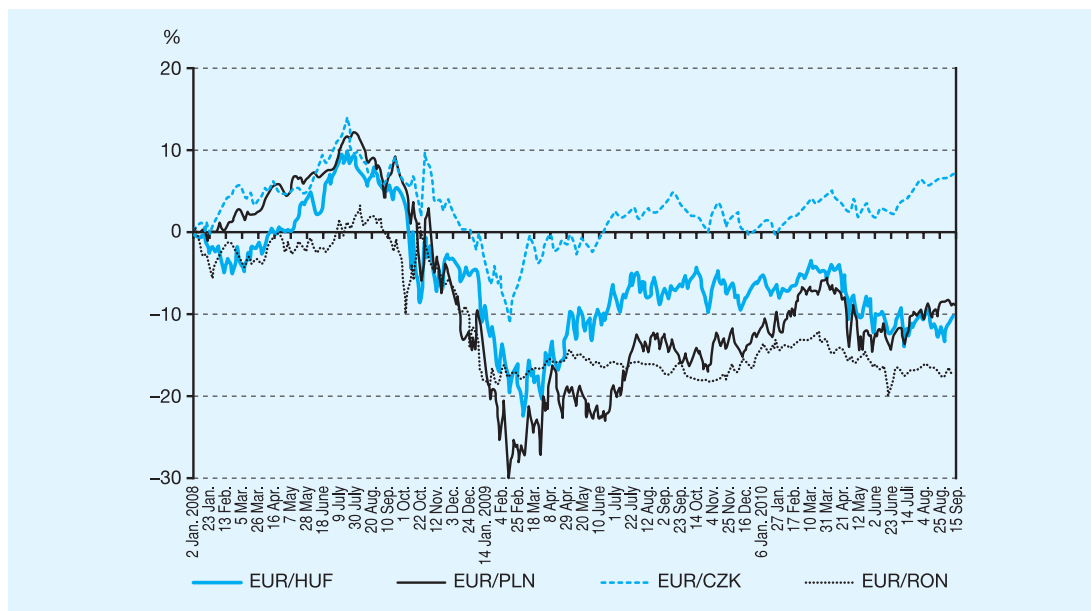
the same direction, in fact they turned the foreign currency lending market upside down.

Even though the world economic shock had substantial influence on the volatility of interest premiums and other indicators in Hungary, the most important factors behind the chaos were still the unwanted domestic banking and financial processes.[21] When at the end of 2008 the crisis gained strength, liquidity and capitalisation became overstrained in the banking sector and this shook the Hungarian money market. This led to an intervention from the MNB and the fiscal authority, giving new momentum to interest rate volatility, which in turn impacted the budget quite negatively. The cyclical effect of the recession greatly contributed to the fact that Hungarian fiscal policy continued down on its former imbalanced road.

During the crisis, the sudden loss of trust by foreign investors towards Hungarian government securities *(see Chart 7)* increased the pressure on the currency's exchange rate. Despite the period of appreciation from October 2006 to July 2008, the forint dropped sharply from August 2008 until March 2009: during this 8 month period the nominal depreciation of the exchange rate was close to 30 percent and was roughly 19 percent Between December 2008 and March 2009 as illustrated by Chart 6. This increased exchange rate volatility can only be partly explained by the real interest changes between the emerging states and the rest of the world, and partly by the changes in the risk premium changes and comparably prolonged fluctuation. The loss of credibility in terms of fiscal and monetary actions increased risks, which is well illustrated by the CDS (credit default swap) market, as evidenced by *Chart 8.*

After investors' confidence had been swallowed by the financial abyss generated by the financial crisis, Hungary also found itself in a much more uncertain environment after the crisis as well.[22] The sovereign bond interest premiums went up and the interest rates themselves became more volatile. It is worth mentioning in this context that the high interest premiums and interest volatility were present concomitantly globally as well.[23] Despite the important role of global factors and market liquidity, investors increasingly differentiated between countries based on their fundaments and the reliability of their economic policy. Those investing in sovereign debt, changing their willingness to invest after the crisis, became and will continue to be more and more aware of extreme risks and closed their high risk premium positions (Chart 7).[24] Therefore, taking the extreme ends of the global financial shock into account as well the extent of the interest premium and country specific vulnerability related volatility was extremely high in our country.

Due to the deep financial and economic integration of the country, the drop in the issuing activity of developed countries led to corrections and economic downturn quickly in Hungary. However, as a result of Hungary's high net external debt, corrections took place more quickly in the private and government sectors that in other Central and Eastern European countries. These quick corrections were able to decrease external financing needs, but at the same time fiscal stringency contributed substantially to the deepening of the economic recession.

One of the most relied upon indicators of the uncertainty that had been surrounding the economic performance and the performance of the government and private sectors, was, unsurprisingly, the rather hectic volatility index of the exchange rate of the Hungarian forint against the euro, also ripe with expectations. As evidenced by the HUF/EUR exchange rate on *Chart 9* in the months of the deepest crisis between 2009 and 2010, annual volatility was around 10 percent for the most part of the period, whereas so-called historical volatility (GARCH index) reached 20 percent.

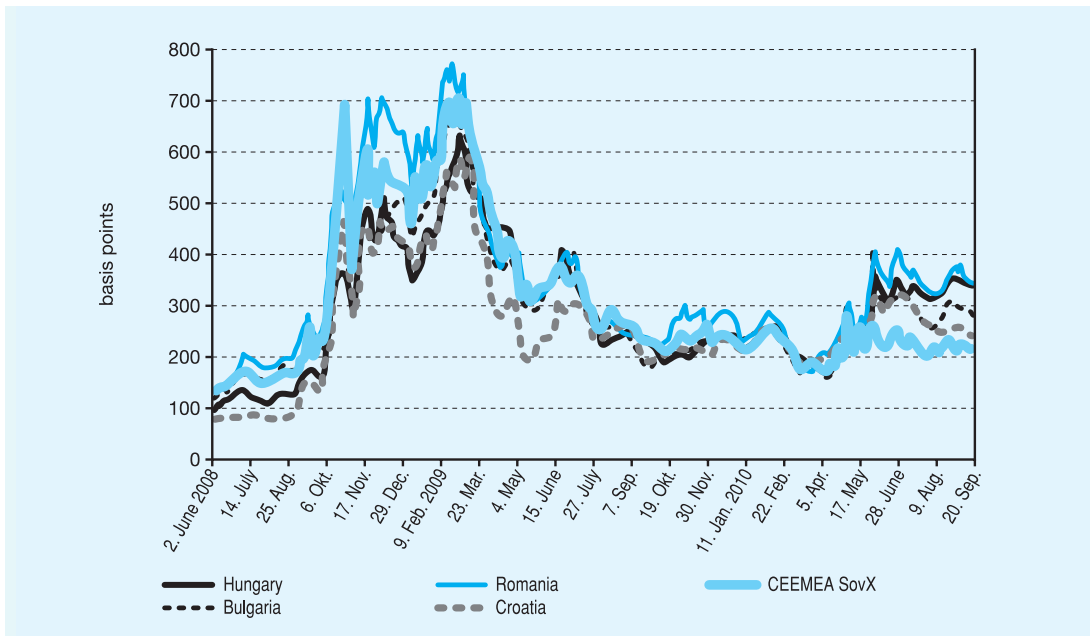*Chart 7*

FOREIGN-OWNED HUNGARIAN GOVERNMENT SECURITIES
2005–2011
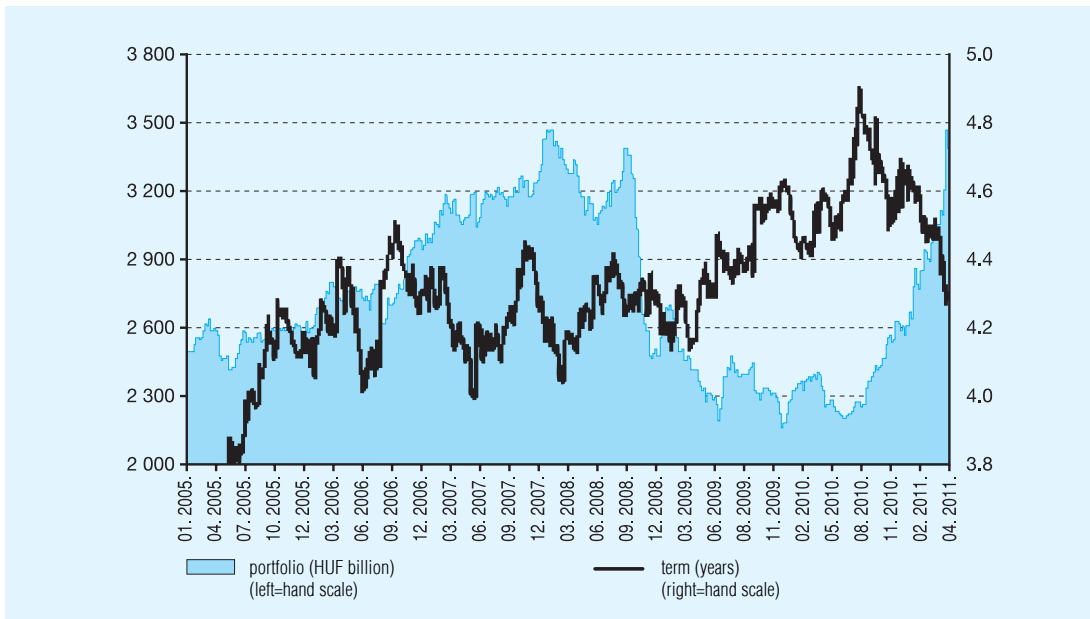
Source: MNB

Chart 8

SOVEREIGN DEBT RISK PREMIUMS IN SEVERAL CENTRAL AND EASTERN EUROPEAN
COUNTRIES 2008–2010 (IN BASIS POINTS)

Source: Thomson Reuters

In terms of Chart 9 it is important to note that the emerging countries of Central and Eastern Europe had been operating in a much more insecure environment than the euro area countries long before the global financial crisis. The supply side and the external environment were much more volatile historically as well. This can be attributed to the relevant structural changes in the wake of the regime change, the transformation from a planned economy to a market economy, as well as higher exposure to world trade, the higher ratio of financial flows as compared to the GDP, and the weaker transmission mechanism of economic policies.[25] Central and Eastern European countries experienced a considerable influx of capital in the banking and corporate sectors, and operated with larger deficits in their current balance of payments. This was typical of Hungary, even in the period before the crisis. The crisis came at the worst time.

The strong external financing and export intensity was unable to compensate for the performance deficit and the deceleration of growth.[26]

External financing in itself is not a bad or erroneous road to growth. International experience and studies based on precise econometrics [for instance IMF (2007), (2010)] display divergent paths in terms of success criteria of external capital involvement facilitating economic growth. Maintaining the external equilibrium and convergence towards growth do not necessarily coincide, although there are European countries having succeeded in this. Unfortunately, Hungary's economic history in this respect is rather damning, at least with regard to the economic stimulus of the current balance of payments over the past two and a half decades (for more details see MNB 2010). Successful involvement of capital mostly depends on the useful utilization of funds, and the reliability of the institutional, government distribution schemes. Fiscal discipline and a well-designed distribution scheme can help reach sustainable paths to growth.

Chart 9

HISTORICAL VOLATILITY OF THE HUF/EUR EXCHANGE RATE
(weekly, monthly, yearly and expressed as risk perceived by the market, in percent)

Source: Bloomberg

230
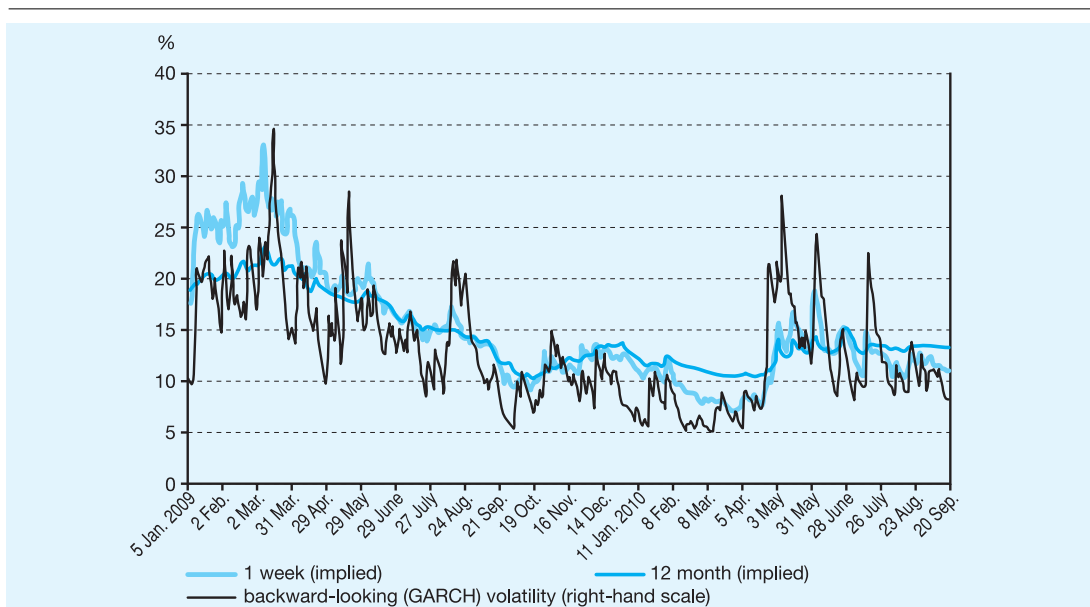
More concrete conditions that could jeopardize the stability of the Hungarian banking system also need to be discussed, namely, the exchange rate and foreign currency loan trap in the long-term credit market. This is presented hereinafter.

THE "IMPOSSIBLE TRINITY AND THE GUILTY HUNGARIAN TRIUMVIRATE"

The perception of the effects of the global financial crisis in Hungary and of the adequate economic policy and desirable measures of the central bank was very far from being obvious. Opinions varied on a wide scale. There were some who saw faulty monetary policy (Erdos, 2010) or erroneous foreign currency reserve levels (Surányi, 2010) as the main cause, while there were others who thought the weakening of the state and the exaggerated dominance of market processes were responsible (Csaba, 2009). This author does not mention this time the clearly ideologically motivated, labelling opinions ripe with political content, all of which talk about the utter bankruptcy of left-wing liberal economic policy all the while omitting to cite any economic backing for their opinions. My starting point in judging on the situation in Hungary is helped by the proprietary analyses of the National Bank of Hungary (MNB) commented upon and interpreted in one of her more recent works (Király, 2011) by *Júlia Király,* in her capacity of researcher and not of the Deputy Governor in office of the MNB. She also reminds her readers that there is strong professional debate about how experts in the field regard the quick proliferation of foreign currency lending and the elimination of Hungarian forint denominated lending. A good overview of the various opinions on the matter is provided in the following publications: *Surányi* (2010), *Bihari – Valentiny* (2010), *Balázs – Nagy* (2010), *Magas* (2010). There was general agreement in these opinions that a so-called fiscal alcoholism (terminology invented by György Kopits) putting a constant drain on domestic savings was a common feature of the system that persisted for quite a long time. This lead to the point where the complete unsatisfied domestic demand for credit (government + private sector) – amounting to nearly 4 percent of the GDP in 2007 – could only be satisfied from abroad. In their effort to satisfy the demand for foreign currency loans, the subsidiaries of foreign-owned banks – backed by their foreign parent banks with ready and cheaper access to foreign currency, put Hungarian banks at a considerable competitive disadvantage, moreover *the segmentation of the retail market in Hungary was clearly adverse to stability* – argues Júlia Király for example (page 48, 2011). The unquenchable thirst for foreign currency loans was well illustrated by the fact that in 2010, roughly 70 percent (!) of the overall retail loan portfolio was denominated in a foreign currency. This portfolio represents roughly 10 thousand billion Hungarian forints, or 38 percent of the GDP. This was regarded as high even in an international comparison, only the Baltic states ventured farther than Hungary in this regard.

What Júlia Király calls the "guilty Hungarian triumvirate" is nothing other than Hungary's widely known notorious debt statistics: In 2008, foreign currency loans accounted for over 70 percent of the retail loan portfolio, and the net private corporate and sovereign foreign currency debt amounted to 50 percent of the GDP. These debt components were inseparable – which is common knowledge taught in basic macro economics courses –, because if the current financing needs of the private sector (corporate + household) and the government overall are met using predominantly foreign funds, then any magic potion hidden in the medicine cabinet of the central bank, however potent, would

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not be powerful enough to make it all better. The vulnerability of sovereign debt remains, that is the right answer to the inflationary pressure generated by the country risk premiums is to increase nominal interest rates. In its difficult position, this is what the MNB did. The international bonds market is good indicator, albeit far from perfect, of country risk. Monetary market decision-makers have yet to find a better indicator. The substantial difference in the interest rates of Hungarian forint and foreign currency denominated loans made foreign currency loans more attractive to borrowers than forint denominated loans. Until 2007, exchange rate fluctuations were minor, therefore, the strong exchange rate of the Hungarian forint seemed to justify foreign currency loans in as much as it seemed cheaper to take foreign currency loans than become indebted in forint. This type of lending proved to be sufficiently attractive for both banks and debtors. The difference in real interest rates and the relatively moderate exchange rate risks seemed to be a good choice in the normal flow of events. Therefore, the logic of the simple F-M model worked both ways, foreigners had developed Hungarian forint positions, whereas Hungarians became foreign currency debtors. Although with vastly different maturity schemes. This caused one of the serious sources of danger. The bigger problem, however, lay in the fact – argues Király for example (2011: p. 42–43) – that a consumption boom developed where for the most part even mortgage loans financed consumption instead of home construction. The overspending of the public and private sectors became dangerous for the banking system as well, due to mismatch in terms of maturity and foreign currency. The banks' credit/deposit rate already exceeded 150 percent. This indicated danger – argues Király (2011: p. 48) – but the Ministry of Finance failed to react to the new regulatory proposals in merit. The MNB saw the coming menace, but did not sound the alarm and took the well-tested official roads to spread the message.

The dangers were already visible at the beginning of 2007, as illustrated by the opinion of *György Surányi* published in the January 21, 2007 issue of Népszabadság, which – with respect to the theoretical and specific opportunities of Hungarian monetary policy – continues to be highly relevant today.

"*Up until the beginning of 2006, the MNB attempted to break inflation and achieve price stability through the most efficient element of monetary transmission by far, the exchange rate channel. (It would not be a surprise if a thorough analysis reached the conclusion that in reality the MNB had been pursuing exchange rate, rather than inflation objectives up until the end of 2005.) For this an interest policy was required for the most part of this period that was able to compensate for unhinged external equilibrium and resulting fluctuating risks the trends of which still reflected the continuous decrease in market confidence. In the interest of achieving inflation objectives and strengthening its own short-term credibility, the central bank applied an interest policy that building on the difference of domestic and foreign interest rates ensured the significant increase in the exchange rate of the forint that broke away from the fundaments of the economy. Obviously, the resulting real and nominal appreciation of the forint substantially contributed to the moderation of inflation, however, this was reached as the combined outcome of such forced processes as were far from focusing on equilibrium and/or far from being sustainable and far from reflecting the improvement of the international competitiveness of the economy.*"

This opinion wholly coincides also with the guidance of the F–M model, (almost also in the sense of a text book) and with the fact that the exchange rate channel, though not perfectly, but does mediate well towards all participants. This is assuming that conditions are normal and significant shocks are excluded.

However, the dynamics of exchange rate development and the time perspective with respect to loan terms can cause serious domestic upturn development complications in the case of such long-term loans as mortgage loans. György Surányi already saw this coming back in 2007 when he wrote:

"The majority of borrowers of housing loans simultaneously enjoyed the benefits of low foreign currency interest and the varied, but frequently appreciated forint exchange rate.. If anything, it was the central bank's "strong forint" or perhaps too strong forint policy that drove the (financially perhaps not very educated) masses to taking out foreign currency-denominated loans. With this the central bank did not cool, decrease the mass of domestic demand, but quite to the opposite: fuelled it. As a result, in contrast with its intentions, the overly strict monetary policy actually contributed to the consolidation of excessive domestic demand, Excessive domestic demand, through the deterioration of external equilibrium, sooner or later leads to the weakening and devaluation of the exchange rate and the acceleration of inflation."

This position was relevant at the time, however cannot be regarded as sentential with regard to all its elements, as it questions the very exchange rate mediating role it considers important and beneficial, and even effective from the MNB's aspect. We cannot expect the exchange rate to provide everything: to be simultaneously beneficial for the commodity and asset markets and to guide upturn in the desired direction. Furthermore, we cannot expect it to provide reliable guidance in the present on the development of future events. With a strong forint, taking out a foreign currency-denominated loan was a rational and well informed decision on the part of the average borrower. The average debtor could not have seen the risks of public resources and sovereign debt, not to mention the loss of confidence due to the global financial crisis. But not even the MNB. This is therefore a typical case in the

F–M model, where domestic objective (monetary stringency) does not meet foreign reaction, namely expansion of credit supply (upturn boost). Why is it a problem if a debtor consuming a home and a car was trying to reap the benefits of a cheaper foreign currency-denominated loan? This is only a problem if said debtor grossly miscalculated in terms of his/her capabilities to pay instalments compared to the substituted forint-denominated loan, or if the mortgage loan was used to cover current consumption. This latter is a relatively easy case among the versions that truly merit negative consideration.

A veritably difficult case – both in theory and practice – is when the central bank takes steps at a time of crisis and acts as a "macroprudential" systems administrator, it expands liquidity, but it is unable to take efficient, immediate and "blow-like" steps on the interest rate side. The details of the effects on upturn of modern global financial intermediation systems are unknown, even in developed countries. This is what caused the severity and long duration of the crisis. A former (proven by experiences of developed industrialised countries) rule of thumb to follow is that fiscal and monetary steps if possible must make their impact in the same direction and the tools used must not obstruct each other. Therefore, the cooling or heating of demand, the direction of steps taken must be the same. The problem is that we are unable to forestall financial impulses from abroad and – due to our size – it is not really worth it anyway, we should rather help the correct orientation of foreign and domestic players by mediating adequately priced loan products Money simply mediates, as does the banking system. The banking system is unable to solve problems of economic or consumption structure, especially problems of productivity and competitiveness, and this is not its responsibility; at the most it may encourage long-term savings and borrowing with prudence.

Though monetary policy is an active participant and shaper of economic processes, its tools are quite limited. Cheap money and loans can only be present with significant abundance of money (considerable and marketable economic performance or abundant natural resources). In Hungary's case, we see no such things.

Gradual or drastic forint devaluation does not solve every problem either. But this is not a trivial proposition either.

This was the question examined by *Tibor Erdős* while analysing forint-denominated loans forced out of the national lending market and foreign currency indebtedness. Erdos (2010) comes to the conclusion that this process was only possible with a permanently overvalued forint exchange rate, at least from the MNB's view point, and it was the strong exchange rate that provided possibility to decelerate inflation. According to Erdos, the severe stifling of the forint, i.e. the extent of foreign currency indebtedness could have been avoided with gradual depreciation (by allowing the forint exchange rate to decrease). "(…) *paradoxically inflation would not have been faster in spite of the decreasing forint exchange rate, and foreign currency-denominated loans would not pose a problem today*". (Erdős, 2010: p. 847). It is his view that inflation would not have been faster even at a decreasing forint exchange rate. This opinion could most certainly be relevant, however, it only offers an alternative in retrospect.

In connection with this opinion, it is worth considering the following supplements.

▸ The time perspectives of borrowers and the big banks shaping exchange rates on the foreign currency markets and actively participating in futures trading are different, mainly because transactions operating on the basis of covered interest parity are only realised in time spans offered by the futures markets; at the same time, however, mortgage-based lending is much longer than this time span and the precise and efficient pricing of the total future risk in this time span is much more difficult – if at all possible. Interests and bond yields must be realistically indicative for all time spans.

▸ As the financing of the debt of the Hungarian state and the private sector is for the most part performed from the outside, namely by foreign bond holders, the real interest mechanism, more precisely the presence of expected positive real interest could not be dismissed. Now, positive real interest strengthens the forint exchange rate. If there is no opportunity to realise positive real interest, i.e. if the differences of nominal interests just express expected future nominal value calculated together with devaluation, then real interest return is zero, and at this point foreign financing runs out.

▸ The validity of the international Fischer effect is ensured by the futures market. There is not much the central bank can do against this, especially when it has some distant exchange rate objective. Foreign capital, typically arriving for 1–2 years and mostly investing in forint bonds, makes a hedge transaction at the exchange rate fixed on the futures market – for the future sale of forints – and through this it practically eliminates the risk of devaluation in this bond position.

▸ Without the expansion of monetary policy, namely satisfying domestic loan demand with better and lower interest rates, it is not possible or worth endangering incoming foreign capital flow as long as the extent of domestic savings does not increase significantly. In reality, what this means is that it is impossible to enjoy the benefits of financial integration without suffering its drawbacks. Namely, interest-policy cannot be subordinated to only domestic or only foreign objectives, just as monetary policy itself cannot be made to serve only domestic goals. The foreign source likes to invest in strong forint the strength of which can be determined within limits 1–2 years in

advance, and is unwilling to offer long-term financing with the significant weakening of the forint. In the long-term the only reality is the issuing of foreign currency, however, this only feasible at triple the rate of developed market returns.

▸There are examples whereas competitive export sectors were able to exist with strong currencies (such as Japan and Germany, plus these countries were even able to build a permanently net capital export position. We do have to admit that these two performances are not very frequent in the world economy.)

▸By pushing out the date of the introduction of the euro, efforts made to develop an adequate or the desired exchange rate are simply delayed, however, inexpensive credit supply seemingly necessary on the basis of domestic credit creation is difficult to imagine in the absence of additional foreign credit supply. Once the domestic credit demands of the budget drop, maintaining the exchange rate may become possible even with decreasing interest levels and significant devaluation might be avoided.

The trilemma exists between the demands of commodity markets, competitiveness and growth, and asset markets (partly money markets) against the desired exchange rate. There is no royal road around this (commodity trading has interests in a weaker exchange rate, while asset trading has interests in a stronger exchange rate). Expressed in amounts, foreign exchange asset trade is (due to capital leverage ratio, but without it as well) many times the amount of commodity trade. As a result, in the absence of significant Hungarian internal savings, financing is done by foreigners, therefore, the range of forint exchange rate fluctuation may not be permitted to become too wide. This is another reason why there is no "royal road" to the solution of this trilemma.

In order to revitalise the credit market, significant changes must occur in real economy,

particularly with large clients and especially with home constructions. An MNB survey conducted in April 2011 also confirmed this negative development as it showed the tightening (i.e. shrinking) of Hungarian domestic lending.[27] The commercial banking sector therefore abides and is expecting incentives and a further reduction of risks to significantly increase is mediating role. As yet it is unclear where this will be coming from.

CONCLUSION

In summary, we can say that no "royal road" or uniform recipe exists with regard to correct exchange rates or the degree of liberalisation of the current balance of payments and capital flow transactions. Decision makers in economic policy responsible for monetary policy have but one thing to do – and this is true in general for recipes recommended by economic theories – namely to consider the advantages, disadvantages and alternative costs of the selected route. Contrasting interests and opportunities must be examined, then – with great intuition –, based on historical experiences and those of other countries, the correct combination of advantages and disadvantages must be selected *(right policy mix)*, that will serve the long-term objective set out. If this long-term objective is increased integration into capital markets and the stronger liberalisation of capital transactions, then exchange rate as well as internal mechanisms regulating capital investment policies must be subordinated to this. If, however, we wish to pursue unique domestic goals, cheap domestic resources or high real interest attractive to foreign countries is required or, and this is the desirable but unavailable option: cheap foreign resources are needed. A small open economy can only acquire the benefits of financial globalisation if adjustment mechanisms ensuring permanent links are set up,

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which are able to create a priority ranking among domestic and foreign market objectives.

External financing in itself is not a bad or erroneous road to take in growth. International experiences, studies based on econometrics display divergent paths in terms of success criteria of external capital involvement facilitating economic growth. There is no single correct road to take. Maintaining the external equilibrium and convergence towards growth do not necessarily coincide, although there are a few European countries that managed to achieve this state of affairs. Unfortunately, however, Hungary's economic history in this respect is rather damning, especially with regard to the economic stimulus of the current balance of payments over the past two and a half decades. The external source did not help as it was not utilised to achieve appropriate investment goals.

We must remind everyone of an old theorem: money simply mediates between diligence, opportunities and resources, as does the banking system. The banking system is unable to solve problems of economic or consumption structure, especially problems of productivity and competitiveness, and this is not its responsibility;

at the most it might encourage long-term savings and borrowing with prudence. Similarly to how the countries struggling within the euro area (Greece, Portugal, Ireland) are not struggling because they pay in euros, but because their fiscal policies, seen with the foreign financier's eyes, cannot be sustained (see for example the 2-year Greek government bonds recently sold with over 20 percent (!) yield). Furthermore these weaknesses reflect a lag in economic structure and competitiveness (said Nobel Laureate economist *R. Mundell,* renowned author of the model we ourselves use, of the matter, as quoted by *Népszabadság* on May 23, 2011). In the same manner, Hungarian foreign currency debt is not a problem in itself, but rather because the production of debt service does not seem easy or, in a worst case scenario, realisable. Successful economic policy – and we can state this with great certainty – can only be realised by harmonising fiscal and monetary measures, by driving processes into a single direction and of course by institutional stability. We have to admit that in small open economies – neither at the level of theory, nor practice – this is not an everyday task, but not an impossible one either.

NOTES

[1] MNB Report on Financial Stability, downloaded (18. 12. 2009): www.mnb.hu/engine.aspx?page=7932

[2] Quote: The Wall Street Journal (June 7, 2010): p. 8

[3] In order to illustrate this, it is worth mentioning that in 1997 the Monetary Fund encouraged South East Asian countries (Thailand, Burma) to devalue and float, and then in 1998 it supported the price band of the Russian rouble with significant billions, i.e., it did the exact opposite and made a financial stand in support of fixed exchange rates. The IMF praised Hong Kong for its particularly strict supervision of exchange rates, but also celebrated Singapore for its "managed float", i.e., regulated float policy amidst the crisis. This clearly showed that not even IMF, the organisation officially and internationally "responsi-

ble" for the issue, being assisted by renowned world economic experts had a uniform view on the adequate exchange rate systems. However, the IMF did not come to represent a unified front neither in its views, nor in its practice following the 2007–2008 financial crisis, as illustrated by a number of studies, see Laeven, L. – Valencia, F. (2008); Abiad, A. – Detragiache, E. – Tressel, T. (2008)

[4] This assumption can be easily resolved, and does not cause any serious problems in terms of the end result as if

$$\frac{k_B}{k_A} = k^*,$$

then the right side of the (3a) equation becomes .

$$\frac{M^B}{M^A} = k^* \times \frac{I}{E} \times \frac{Y^B}{Y^A}$$ -ra módosul.

[5] Mexico is a great example of an exchange rate regime exhibiting contradictions. After the sharp devaluation of the Russian rouble in 1998, Mexican floating currency also lost more than 10 percent of its value. But even this over 10 percent loss came at a high price. The price for this 10 percent not becoming 20 was that the Mexican nominal interest rates had to offer much higher real interest returns and had to continually keep moving upwards. The price for maintaining capital mobility and the flow of external funds and last but not least for maintaining investor confidence was extraordinarily high, requiring very high real interest returns. Namely, by applying very attractive, high local currency interest rates they suggested that such a steep 10 percent devaluation could not possibly be followed by another serious wave of devaluation. However, the effect of these artificially high domestic real interests on the real economy acts against the upturn, which is rather unfavourable. This is also what happened in Hungary after the autumn of 2006. This is the situation which appears to occur rather frequently in reality as well and which is so clearly and analytically described by the often cited Mundell-Fleming portfolio based model. This has also been supported by the statistics of IMF member states, too: At the end of 1998, 35.7 percent of all IMF member countries operated in a fixed exchange rate system; 29.7 and 25.3 percent selected the managed float and independently floating exchange rate regime respectively, while 9.3 percent operated in other mixed systems. (Eichengreen, B. 1999) Over the last ten years, these ratios have changed only slightly and in favour of floaters (Laeven – Valencia, 2008). Regarding the correlations of frequently occurring real revaluation, see Darvas (2003).

[6] The original theoretical framework can be found in two separate papers written by the authors. Fleming (1971) and Mundell (1968)
Kenen (1989), Erdős (1998), Krugman – Obstfeld (2003) provide detailed and extensive discussions on special situations that deviate from the general assumptions. Medvegyev – Száz (2010) discuss the most modern stochastic and dynamic foreign currency and bond market modelling based on interest differences and expectations, relying on market reactions to news and market expectations, essentially according to the principles of probability.

[7] For more details see Kenen, P. B. (1989): pp. 314–317 or Krugman – Obstfeld (2003): pp. 339–377

[8] The name was conjured up by Larry Summers, former Secretary of the Treasury of the USA, The

Economist, (January 30, 1999). Summers is currently a professor at Harvard University.

[9] Not surprisingly the prerequisite of bank crisis was a bad macro-economical environment: triggered by the balance of payments deficits and the growing inflation. However, in the cases of the 1998 Russian and the 2001 Argentinean crises, the negative processes were caused by current budgetary disequilibria; while in the case of the Far East crises, it was rather the loan screening mechanisms of the banking system that failed and the structural problems of the economy piled up. In the overall sample, in the majority of cases – including, among others the Chilean crisis – (close to three quarters) the rise in the ratio of non-performing loans was the immediate cause. The immediate causes of crises were rooted in approximately 30 percent of the cases in the presence of government owned banks (government ownership of banking assets) and in the exaggerated growth in the volume of loans. In many cases, state ownership might have led to vulnerability as state-owned banks were the main issuer of new liabilities and therefore the crisis might become unmanageable. But in 62 percent of the cases of bank crises, the banks fell victim to the sudden loss of depositors' confidence and the resulting massive withdrawal of funds. These are the classic types of bank panic.

[10] By 2010, only traces of the former concepts remained. At the Finance Ministers Summit held in Busan, South Korea in June of 2010, G-20 financial leaders came to an agreement that national banking systems must be strengthened, in particular the minimum common equity requirement of banks must be increased and capital adequacy indicators improved. Furthermore, a financial fund – registered under Luxembourg private law, but owned by 16 governments of the euro area – must be established in Europe, which can be used by European governments and their banks accumulating sovereign debt under slightly better conditions than those offered in the market. Accounting would be linked to EU accounts. Therefore, this would be a European solution, not a global one.

[11] Rajan, 2005

[12] Rajan (2005): pp. 47–48

[13] For more details see Magas (2009): Parts I and II, Csaba (2009)

[14] An example of this is the much quoted fact, according to which: while at the time of the Bretton

Woods system (1945–1973) the economies of developed industrialised countries averaged an annual growth of about 4 percent, in the 1974–1999 period average annual growth indicators did not reach half this figure. We should not ignore the fact that the last two decades also produced more than ninety financial and banking crises with grave international consequences. In each case, the losses generated as a result of these crises exceeded the level of losses suffered by the American banking system at the time of the Great Depression (measured at the level of GDP).

[15] For more details see Rodrik, D. (1999); Bhagwati (2004)

[16] The complete "emerging" category includes the following countries: China, Hong Kong, India, Indonesia, Malaysia, the Philippines, Singapore, South Korea, Taiwan, Thailand, Argentina, Brazil, Chile, Colombia, Mexico, Venezuela, Egypt, Greece, Israel, South Africa, Turkey, the Czech Republic, Hungary, Poland and Russia. The issue is detailed in Pálosi – Németh (2008).

[17] For more details see Magas (2009): pp. 75–104 and pp. 203–222

[18] Ötker-Robe, Ýnci, Zbigniew Polañski, Barry Topf and David Vávra, (2007): p. 6

[19] International Monetary Fund, Global Financial Stability Report, Washington, D.C., April 2005

[20] Ötker-Robe et al., 'Coping with Capital Inflows', p. 3

[21] International Monetary Fund, Regional economic outlook: Europe, Washington, D.C., October 2009

[22] International Monetary Fund, Regional economic outlook: Europe, Washington, D.C., October 2009

[23] Fernandez-Villaverde, Jesus, Guerron-Quintana, Pablo A., Rubio-Ramirez, Juan, and Uribe, Martin, 'Risk Matters: The Real Effects of Volatility Shocks,' NBER Working Paper No. 14875, Cambridge, Massachusetts: National Bureau of Economic Research, 2009

[24] Blanchard, Olivier J., 'Current and Anticipated Deficits, Interest Rates and Economic Activity,' NBER Working Paper No 1265, Cambridge, Massachusetts: National Bureau of Economic Research, 2009

[25] International Monetary Fund, Regional economic outlook: Europe, Washington, D.C., 2009. October

[26] In 2007, Hungary's macroeconomic indicators were worse than the reference indicators of the V-3 countries (Czech Republic, Poland and Slovakia). Hungary's GDP growth was well below the unweighted average of the V-3 countries (below 2 percent as opposed to 6 percent in Poland and the Czech Republic and above 10 percent in Slovakia); inflation was above 7 percent in Hungary, and under 3 percent in the V-3 countries; the deficit in the current balance of payments was around 7 percent in Hungary and 5.3 percent in the V-3 countries.

[27] Due to the deteriorating lending capability of banks, stricter requirements apply to lending now - uncovered the survey conducted by the Hungarian National Bank (MNB) in April 2011. (MTI, May 19, 2011) The questionnaire survey showed that the conditions of corporate lending have become even stricter and the trend may continue in the following two quarters. The survey conducted among banks was based on 2011 Q1 data and reflected expectations for the two quarters after that. The survey confirms that a few major banks are scaling down their lending products, while the majority of responding banks is only willing to increase their lending activity without the easing of current conditions. The banks also said that the tightening of lending conditions can be explained not only with weak capital accumulation and capital attraction capabilities, but also with the narrowing of foreign currency sources and their becoming more expensive.

The process is well reflected also in the development of the corporate loan portfolio: in the first quarter of this year the portfolio decreased by HUF 120 billion following the HUF 100 billion drop recorded in Q4 of last year, which means that over the course of two quarters exchange rate filtered credit portfolio decreased by HUF 220 billion. The first quarter, downward pointing graph of the Hungarian corporate loan portfolio is aligned with that of the Baltic states, while in countries of the Visegrád Four corporate loan portfolio has already started growing and this is also true for the average of the euro area countries. According to the survey, banks are expecting the upturn in corporate loan demand by the end of 2011.

While the conditions of housing loans essentially did not change – and banks are not expecting significant shifts in the next six months —, in the case of consumption loans, 18 percent of banks tightened their lending conditions, while 7 percent are plan-

ning to ease conditions in the next period of 6 months - showed the survey. The loan portfolio of households in the first quarter of this year – similarly to Q4 of last year – dropped by HUF 100 billion. This means that over the last six months the portfolio shrunk by HUF 200 billion.

Within the mortgage loan portfolio, the ratio of restructured loans has increased by a further 1 percent, which means that by the end of the first quarter of 2011 10.4 percent of the total mortgage loan portfolio has been restructured. As, however, in the case of close to two thirds of restructured mortgage loans the special lowered amortisation grace period has not expired yet, it is difficult to judge the success of restructurization.

Based on banks' answers, restructuring is also significant among commercial real property loans:

By the end of the first quarter of 2011, 18 percent of the portfolio has been restructured and this ratio will be 30 percent by the end of the year. Due to the bad property market situation, the active restructuring policy of banks indicates an emergency situation which increases the risk of commercial real property loans becoming "evergreen". This means that banks may be forced to continuously reschedule corporate real property loans and are waiting. In summing up, the MNB survey states that due to the bad property market situation, the active restructuring policy of banks indicates an emergency situation which increases the risk of commercial real property loans becoming "evergreen". This means that banks might be forced to continuously reschedule corporate real property loans.

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