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# *Causes of Foreign Currency Lending – Possibilities of Intervention – Ways of Intervention*

**SUMMARY:** The study examines foreign currency lending in Hungary. It states that: 1. The original reason behind foreign currency lending was the difference between the interest on foreign currency and Hungarian forint loans; 2. Foreign currency loans showed otherwise uncreditworthy clients as creditworthy; 3. Debtors and creditors are both at fault, therefore, responsibility and losses should be shared accordingly. The state can intervene through regulation or support. Any type of support means that the losses incurred by the debtor and creditor are spread between taxpayers who are not involved in the deal, therefore, such support can only be justified by social solidarity, whereas regulation can be unlimited. Recommendation: 1. State intervention should target the housing rights of non-performing families; 2. In the interest of intervening with the lowest social cost, a special real estate fund should be created (which can be the National Asset Management Company), which should enter into a framework agreement with the commercial banks, according to which, depending on their eventual surplus liquidity, these banks would subscribe to real estate bonds – instead of government bonds – issued by the real estate fund, which would be guaranteed by the state and earn similar yields and have the same tenor as the current two-week bonds, issued by the central bank, thereby providing funding to ensure the continued housing rights of families that have become insolvent and unable to meet their loan repayment obligations.

**KEYWORDS:** foreign currency loan, mortgage, exchange risk, non-performing debtors, housing rights, special real estate fund  
**JEL-CODES** G18, G21, G24

## REASONS AND CONSEQUENCES

Imposing restrictions on the housing subsidy system, the significant difference in the interest charged on Hungarian forint and foreign currency loans, and the strong loan supply pressure exerted by banks encouraged foreign currency lending instead HUF lending. This direction covered the entire retail lending market, including consumer loans, home equity loans and housing loans to purchase new and used homes. From a political and socio-political (social) point of view, the loan

repayment capacity of mortgage backed housing loans is the most sensitive issue. It is debatable whether foreign currency debtors have fallen victim to the banks because of their lack of financial knowledge, or whether their decisions were economically reasonable. The debate is certainly not useless, as any lessons learned can be used in the future and another similar crisis may be avoided as a result. Although the exchange rate exposure risk was a known factor even before the 2008 financial crisis, the additional principal and interest repayment burdens, caused by the weakening of the Hungarian forint and the increasing cost of foreign currency financing could not be foreseen. The bottom line is that

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the homes of a large number of foreign currency debtors were/are encumbered by CHF loans for the most part, EUR for a smaller part and minimally by JPY denominated loans.

### Reasons for the prevalence of foreign currency lending

The introduction of restrictions in the housing subsidy system led to increased competition among banks in the housing loan market. Under the new rules the market share of banks could have increased as well as decreased, and so they had to introduce new instruments to redivide the housing loan market among themselves. If a bank introduces new instruments and those turn out to offer better conditions with lower interest rates (cost) for borrowers, then the debtors (borrowers) will look for and show a preference for those arrangements, and as a result all creditor banks are forced to adapt and introduce the better interest rate arrangement, or even try to top the most preferential arrangement by churning out newer, lower interest rate loan arrangements still (see Table 1)<sup>1</sup>.

Foreign currency (CHF, EUR and then JPY denominated) loans instead of forint loans were such a new instrument. The advantage at the time of the credit application was only interpretable within a time frame that the debtor could foresee: monthly repayments and interest payment on a foreign currency loan were going to be smaller, compared with a forint-denominated loan.

The reasons behind the introduction of foreign currency-based lending to the housing loan market are well documented. It had been used previously on the Hungarian motor vehicle market with the same aim to allow banks to increase their market share. It “crept in” from around the corner, from neighbouring Austria, where creditor banks and borrowers alike supported CHF denominated retail loans in addition to schilling and later euro-denominated loans. Banks cited reasons pertaining to lowering their competitive disadvantages over other banks, whereas borrowers argued for the arrangement because it offered better interest rate conditions.

CHF-denominated lending originated in the region close to Switzerland. Austrian residents, who worked in Switzerland and received their pay in Swiss francs were able to take out a Swiss

Table 1

#### CHANGES IN MORTGAGE-BACKED HOUSING LOANS

Year	Mortgage-backed housing loans			
	Foreign currency loans of credit institutions (%)	total	OTP Bank Nyrt's market share (%)	
			HUF loans	foreign currency loans
2003	1	52.91	53.56	0.00
2004	8	49.72	53.25	6.85
2005	21	46.40	52.63	22.55
2006	34	41.65	51.23	22.86
2007	46	36.36	50.09	21.2
2008	61	32.35	49.61	21.11
2009	62	30.38	48.34	19.54
2010	65	28.66	46.24	19.29

Note: excluding home equity loan portfolio

Source: own calculations

franc loan with a lower interest rate, compared to euro loans, without – to use a professional term – creating an open position. The debtor's debt is in CHF and he is paid in CHF as well, therefore, he can enjoy the advantages of a lower interest rate without exchange risk. Starting from this shielded region and the clients protected from exchange risk, other bank clients, “only” paid in EUR instead of CHF started showing interest in the lower interest rate loan arrangement. They applied for these loans regardless of whether they did not actually recognise the exchange risk of the open position or whether they recognised, but chose to ignore it. By the same token, it was not surprising that the “contagion” spread over the border through the Hungarian subsidiaries of Austrian-owned banks to Hungarian banks and Hungarian borrowers. The only difference between Hungarian and Austrian foreign currency lending is that Austrian borrowers, who are paid in Swiss francs, do not have to contend with the exchange risk of the EUR/CHF exchange rate. Other Austrian debtors have to face the exchange risk, albeit only that on the EUR/CHF exchange rate, whereas Hungarian debtors have to bear the consequences of both the HUF/EUR and the CHF/EUR exchanges rates.

The origin and prevalence of Hungarian foreign currency-denominated lending is primarily rooted in the existence and extent of interest rate differences (see Table 2).

If, compared with the HUF–EUR and HUF–CHF interest rate differentials, the significantly smaller EUR–CHF interest rate differential was enough for foreign currency denominated lending to spread in Austria, then it is no surprise that the much greater differential in Hungary had a similar effect. International literature also refers to the difference between foreign and domestic interest rates as the main reason for the prevalence of foreign currency lending (Basso – Calvo – Gonzales – Jurgilas, 2007; Rosenberg – Tírpák, 2008).

### The technique of foreign currency lending

The credit applicant had the option to choose between a Hungarian forint or foreign currency loan, and within that between an EUR or a CHF denominated loan. If the applicant chose a foreign currency loan and within that a CHF-denominated loan, then in the case of mortgage and home equity loans the bank determined the maximum loan amount in Hungarian forints,

Table 2

#### DIFFERENCES IN INTEREST LEVELS

Period	CHF interest rates %	EUR	HUF
01.2004–05.2004	0.325	2.00	from 12.5 to 11.00
05.2004–08.2004	0.5	2.00	from 11.5 to 11.00
08.2004–11.2005	0.75	2.00	from 11.00 to 6.00
01.2006–08.2007	from 1.00 to 2.75	from 2.25 to 4.00	
06.2006–10.2006			from 6 to 8
10.2006–05.2007			8
08.2007–09.2008	2.75	4.00	from 7.75 to 8.50
03.2009–02.2011	0.25		from 9.50 to 6.00
04.2009–02.2011		1.00	

Source: Compiled from Central Bank Communications

based on the official appraised value of the real property offered as collateral. The loan amount applied for in Hungarian forints could be less, but no more than this amount. The requested HUF amount was then converted to CHF at the prevailing HUF/CHF exchange rate, which was then the loan amount expressed and denominated in CHF. The client account of the debtor is managed in CHF, and the loan amount is debited to this account in CHF at the time of the disbursement of the loan. Disbursement is made in HUF; the client's account is credited by the relevant amount in HUF, which is the CHF-denominated loan amount (minus the disbursement fee, e.g.: 1.5 per cent) multiplied by the bank's prevailing buy exchange rate. The client performs all repayments (principal, interest and handling fee) in HUF. The HUF amount is the repayment instalment expressed in CHF, multiplied by the bank's sell exchange rate, valid at the usual time (e.g.: 11:00 o'clock) of a day, specified in the loan agreement.

The costs of debtor – which is the income of the bank – include the one-off disbursement fee (paid before disbursement), the monthly charged interest payment and handling fee, and the margin between the buy exchange rate at the time of disbursement and the sell exchange rate at the time of repayment. The debt is gradually decreased by the repayments made by the debtor, finally reaching zero by the last month of the loan term.

## Exchange risk

The loan agreement puts the exchange risk on the debtor in full. If the prevailing exchange rate at disbursement changes by the time the repayment is made, and it is usually different at the time of interest payment than at disbursement, the losses and the profit must be borne by the debtor. When the Hungarian forint weakens, the exchange rate loss equals the extent of the

weakening, when the HUF strengthens, the exchange rate profit corresponds to the extent of the strengthening. Foreign currency loans make sense in an environment, where the Hungarian forint is weak and forecasts show an improving trend, whereas conversely, when the HUF is strong and it is expected to weaken it is better to choose a Hungarian forint denominated loan. Naturally, neither the weakness or the strength of the HUF position nor the expected strengthening or weakening of the forint can be determined in any exact manner, nor can it be predicted for a 15–30-year mortgage-backed construction or housing loan.

If the debtor disregards the exchange risk at the time of the submission of the credit application and is unable to pay the higher instalments when the HUF weakens, after a series of missed payments the bank classifies the loan as a bad loan and enforces the sanctions set out in the loan agreement. The losses on the exchange risk have been incurred, but it will only be known afterwards how losses are shared (divided) between the creditor bank and the debtor (client). We are only aware of two assertions in this regard, and these are the ones that I would like to emphasise.

► When entering into the loan agreement, the wrong decision made by foreign currency debtors was not choosing a foreign currency loan (regardless of whether we are talking about a EUR or CHF loan) instead of a HUF loan, but taking out a loan as opposed to not taking out a loan. Whereas the repayments of the foreign currency loan, including interest and handling fees, were “within the budget” of the debtor's actual and expected level of income (including his disposable savings), the total cost of a foreign currency loan “was outside of the budget” in a scenario when the Hungarian forint weakens just as the total cost of a Hungarian forint denominated loan was “outside of the budget” – due to the higher HUF interest rate – at the time of the disbursement of the loan.

► The fundamental reason behind the prevalence of foreign currency lending was the difference between HUF and foreign currency interest rates. That is true, however, the difference between the Hungarian forint and the euro-Swiss franc interest rates has created an assumption that the high-interest rate Hungarian forint was presumably stronger (maybe even overly so), compared to the low-interest rate EUR and CHF, therefore, it will necessarily weaken over the tenor of long-term mortgage-backed construction and housing loans, and may even weaken considerably. Therefore the main motive behind foreign currency lending was the interest rate difference, but the interest rate difference could also be interpreted as a warning about the presumable mid-, and long-term disadvantages of foreign currency lending.

### Foreign currency debt = disadvantage; HUF debt = advantage?

“Which one's better, a forint loan or a foreign currency loan?” The dilemma can only be resolved with the entire tenor of the loan in mind, and even then only based on the specific conditions of the individual loan agreements, on a case by case basis. The question we have to answer now is different, however. The apartment or house of the foreign currency debtor is encumbered by a mortgage, the greater strengthening of the CHF and the higher costs of financing CHF and EUR loans increased the overall cost of principal, interest repayments and handling fees to such extent that some debtors did not and do not pay them on a monthly basis (I deliberately avoid terms such as “were not able to” or “do not want to”). The last resort is to auction off the apartment or house, after which the new owner wants to get rid of the tenant turned old owner at all costs. Avoiding eviction, helping to preserve the occupancy of old owners, who are now tenants,

or providing support to keep the loans performing is a social task, which is a socio-political conflict that requires a political decision.

The following are the parties to the social conflict generated by foreign currency lending: creditor banks, foreign currency debtors, forint debtors, Hungarian households without loans and the state. The loss originating from the exchange rate changes (weakening of the forint) cannot be excluded, the only thing that can be influenced is how to divide it up between the parties involved. If the state intervenes with any sort of support, the loss that needs to be shared (divided) between the bank and the foreign currency debtor will be smaller, but the HUF debtors and the households without loans will bear its costs at an unascertainable proportion. Without state intervention, losses can be divided up between the bank and the debtor. The division happens without a separate agreement, as the bank's income on a bad loan is generated from the selling of the encumbered real property. Considering that the forced sales of real properties is usually performed at a suppressed price (selling of a bad loan is also only possible at a discount), the bank will close the transaction with a loss, but the foreign currency debtor may lose the money he had already paid to the bank as repayment, as well as the money he paid towards the purchase price. From this it follows that whether the state intervenes or not, either way it is in both the bank's and debtor's interest to come to an agreement.

### State intervention through support or regulation

If there is no government intervention, foreign currency debtors will bear the principal and interest repayment changes resulting from the HUF/EUR exchange rate fluctuation until the introduction of the euro in Hungary. When the

euro is introduced the EUR/HUF exchange risk ceases to exist, because the prices, incomes, debts and savings expressed in forints will be converted to euros at the specified EUR/HUF exchange rate, and afterwards they will be denominated and registered in euros. The EUR/CHF exchange risk will remain until the end of the loan term.

If the state does not intervene, foreign currency debtors can rid themselves of the exchange risk, if they convert their foreign currency debt to Hungarian forint-denominated debt. Based on the prevailing exchange rate and HUF interest rate conditions of banks, conversion cannot be beneficial for foreign currency debtors. The overall debt will increase as a result of the weaker forint and the repayments will increase as a result of the depreciation of the forint and the increased HUF interest rate. The difference between the buy and sell exchange rates is another source of losses, if the bank disbursed the foreign currency-denominated HUF loan at the buy rate, but wants to convert the debt to HUF at a different rate. In addition, the risk of the HUF interest rate should not be ignored either, nor should the exchange risk at the time of the introduction of the euro in the future.<sup>2</sup>

If the government wants to intervene it must first decide whether

- it wishes to reduce the expected losses generated on foreign currency loans by support or wants to minimise the loss to be divided up between the creditor banks and foreign currency debtors by introducing new regulation. The first case requires central budgetary funds, while the second requires legislative regulation only;
- wants to prevent clients from becoming non-performing or wants to avoid social consequences (e.g.: becoming homeless) that the government does not want to face in critical situations (e.g.: sales by auction). In the first case support or regula-

tion, or a combination of support and regulation is needed, in the second case regulation must be accompanied by support.

## WHAT COULD HAVE BEEN DONE IN THE RECENT PAST?

By the spring of 2011, the markets have calmed down slightly. Around 7–11 April 2011, the CHF exchange rate was close to HUF 200. Few experts and politicians could have thought at the time that the Swiss franc would continue to weaken significantly; however, the risks that could generate a repeated, even more significant strengthening of CHF were all the more visible. These risks included the financeability of the Greek public debt; the repeated difficulties of the Irish, Portuguese, Spanish and Italian economies; the USA's public debt and its financeability and China's opaque financial system. That said, if these risks were indeed recognisable, the central bank could have covered the exchange rate loss arising from the further strengthening of the CHF at a national economy level. The currency structure of the foreign exchange reserve owned by the state and managed by the Central Bank could have and should have been transformed in such a way that the rate of CHF reserves also conform to CHF debt volume besides the euro. In this case, the foreign exchange reserve of the Hungarian state would have approximately appreciated to an extent equal to the increase of the principal and interest payments of foreign currency debtors due to the strengthening of the CHF.

## WHAT CAN BE ACCOMPLISHED WITH REGULATION?

The solvency of foreign currency debtors can only be improved through subsequent regulation if, by temporarily suspending principal

repayment obligations, an interim grace period is introduced and loan terms are extended at a rate equal to said grace period.

Extending loan terms and allowing an interim grace period does not increase existing risks, therefore, this change does not have to be accompanied by the deterioration of debtor rating, which means that the lending bank does not have to book further losses in value (i.e. generate risk-based provisions). Extending the loan term would not result in unusually long loan terms, the current average (12–15 year) term is not high in international comparison.

In the case of long-term loans, the interest rate level is not fixed for the entire term, therefore, mortgage debtors bear interest risk regardless whether their loan is denominated in HUF or other foreign currencies. Interest risk arises from the changes of market loan interest rates that are adapted to the changes of the central bank base rate. In contrast, debtors with HUF income are taking on an 'open' position with foreign currency (CHF, EUR) loans (though not in the case of HUF loans), which necessarily incurs exchange risk. However! This exchange risk cannot be more than the percentage of exchange rate change compared to the exchange rate level at the time of making the borrowing decision.

First question: who should bear the exchange risk: the client, the bank or both? Clients could and did choose one of two products, therefore could not be exempt from risk, but at the same time had every right to assume that if they had the option to choose from products with different sets of conditions, but all examined, rated and recommended by the bank, then their creditworthiness, determined by the bank, is valid for selecting either credit market products and as such the bank cannot be exempt from risk either. This risk sharing and the consequent loss sharing could be justified against debtors with bad loans.

Second question: who should bear the risks beyond exchange risk? Specifically: if at the disbursement of the loan the bank financed the long-term CHF-denominated mortgage loan from short-term funds, then the bank must procure new funds to finance the loan during its entire term in accordance with the maturities of the short term funds. If, compared to the starting date, the exchange rate of the Swiss franc increases, the exchange rate of the forint decreases and this is partly or wholly due to the negative perception of the domestic economy by foreign markets, then the strengthening of the Swiss franc will be accompanied by increasing CDS premiums corresponding to sovereign risk, as a result of which the cost of the repeated financing of these loans will increase, due to the costs incurred in addition to the regular market interest rates. The client (debtor) has nothing to do with this additional cost, this is the result of the speculation of banks, who thought that it was better to finance long-term loans with recurring short-term funds as opposed to ensuring funds for the entire term of the loan. The client took out a long-term loan (for 15–20–25 years), which requires long-term funds, and if the bank chose to finance the long-term loan with short term funds, the additional costs of the new funds that are required upon renewal should only be borne by the bank.

Third question: in the case of mortgage loans, if at the time of the enforcement of the pledged collateral the selling price of the real property is smaller than the principal and interest debt of the debtor, is the bank still entitled to the remaining amount? In the case of mortgage loans (real estate secured loans) a real estate appraiser company appointed by the bank appraises the value of the real estate, based on which a liquidation value is established that is acceptable for the bank (this is generally 20–30 per cent lower than the market value of the real property), and then the bank

disburses a loan amount that is below the liquidation value, which it determines at its own discretion. In every step of the process the bank decides and the client accepts the decision (the selection of the appraisal company, the determination of the market and liquidation value of the collateral, and the loan amount that can be disbursed). If the selling price of the real estate that is pledged as collateral is lower at any point during the loan term than the outstanding debt of the client, then that can only be because the bank made an erroneous decision, therefore, the loss should be borne by the bank and not the passive client.

The losses resulting from banking risks can be partially counteracted by reducing the banking tax. Taking into account on the one hand the temporary nature of the banking tax, and on the other, the negative economic policy and social policy consequences of retail foreign currency loan volume, passing on part of foreign currency debtor losses can overall do no more than reduce social damage.

## WHY MUST THE STATE (SOCIETY) INTERVENE?

Families, as bank clients carrying mortgage backed housing and construction loans, can be categorised into four or five groups: insolvent debtors with foreign currency (CHF, EUR, JPY) loans, solvent foreign currency debtors, solvent debtors with HUF loans and insolvent debtors with HUF loans. The fifth group is those who have no loans and are not bank clients, however, the decisions made could violate their interests. Families whose repayment obligations have been overdue for 0–90 days are in between the performing and non-performing group, as they either regain their repayment capacity and move to the performing group or will not regain their repayment capacity after 90 days and will become part of

the worst situated group. The question “why must the state (society) intervene” refers to debtors who have not paid for over 90 days as it is their loan agreements that will be terminated, their real estate that will be forcefully sold and they will most probably be evicted.

If the bank terminates the loan agreement entered into with the client due to permanent non-payment, the bank has unlimited powers over the mortgaged real estate. If the bank wants to avoid an inconvenient situation it might sell its receivables due to it from the terminated loan agreement to a debt collection firm, therefore, it can be either the new owner or the bank, who will proceed to auctioning off the real estate (the bank usually does not keep residential property). The buyer can either keep the real estate with the original tenant as a tenement flat (which is not an impossible scenario, though highly unlikely) or the affair ends with eviction. But what about the families?

Why is intervention necessary?

- for social reasons based on the principle of social solidarity;
- based on the principle of minimising common social costs (cost-efficiency not only requires, but also allows the selection of the “less expensive” route: children should be brought up and supported by the parents, the homeless should not disrupt the lives of the majority, crime rates – theft, robbery – should drop and not increase, the cost of upholding security should decrease).

## Starting principles

In the case of residential real properties, auctioned after the termination of bad loan agreements, the consequences of primarily socially and occasionally business motivated state intervention

- must exclude the possibility of moral hazard, i.e., creating a situation, where performing debtors are better off becoming non-performing;
- such intervention must avoid creating a situation where foreign currency debtors (CHF, EUR, JPY) enjoy advantages over forint loan debtors.

State support advanced on the basis of social solidarity to the detriment of households without loans as well as performing foreign currency and forint debtors should only reach an extent that ensures the right to housing, on the one hand taking account of employment and on the other the rights of the children in the given family.

### Institutional conditions of the solution in 12 points

- 1 A special real estate fund should be established (which can be the National Asset Management Company), which could:
  - participate at real estate auctions;
  - manage the state's tenement flat portfolio;
  - take empty municipal tenement flats under its own management;
  - provide rent subsidies.
- 2 The banks would establish an auction house that would exclusively auction off encumbered real estates behind terminated loan agreements.
- 3 The auction would begin at the starting price determined by the lending bank.
- 4 An important element: the state real estate fund would not bid, but at the end of the auction, knowing the final sale price, would announce whether:
  - it wants to exercise its option at the auction price and obtain the title to the real property;
  - it does not want to exercise its option and thereby transfer the rights to the title of the real property to the highest bidder.
- 5 The starting price (initial bidding price) would be determined by the initiating the sale and three cases could occur during the auction:
  - several bidders accept the starting auction price, and the auctioneer receives bids rising according to predetermined bid increments until only one bidder remains;
  - the starting auction price is accepted by at least one bidder, and as there are no other bidders, the auctioneer declares the winning bidder at the starting price and the real estate belongs to this bidder;
  - there are no bidders at the starting price – in this case the auction ends and the real estate remains unsold.
- 6 After a period determined on the basis of expediency, the bank may again try to auction off real property already auctioned but unsold, with the same or lower starting price.
- 7 The real estate fund would attend all auctions and a small body, selected from the employees of the fund or from external experts, would make a socially or business motivated decision on the highest price at which the fund would want to exercise its option. If there are no bidders at the starting price, the real estate fund may exercise its pre-emptive right at the starting price.
- 8 Flats and houses purchased by the real estate fund become the property of the fund, however, former owners (former debtors) would have the option of occupancy, albeit they would become tenants and would be forced to pay rent and they might not be allowed to remain in their original real property. The right to occupancy cannot be inherited as this concerns only the debtor and the spouse.
- 9 The former owner becomes a tenant, but the own contribution paid at the time of the disbursement and the HUF amount already repaid (excluding interest and handling fees) could be allowed to be offset against the rent. The tenant could also be provided the option to repurchase his/her former property with conditions announced in advance.

⑩ The real estate fund not only purchases residential real properties through exercising its pre-emptive rights, but also performs real estate management. It would be advisable to prepare a nationwide cadastre of municipal flats, as well as vacant and privately owned flats and houses for sale. Besides municipal flats, some of the privately owned flats – if purchasable at low prices – can also be immediately used as tenement flats. Privately owned apartments and residential properties could be turned into social tenement housing without purchase, if those in need can receive housing aid. This could prove to be the cheapest and most effective form of social subsidy.

⑪ Funds of the real estate fund:

- the registered capital of the real estate fund should be set at EUR 1 billion ensuring that the funds are channelled into it in line with the actual needs of the fund;
- the real estate fund would issue two-week bonds (or the multiples thereof 4–6–8–10–12-week bonds);
- the yields of the two-week bonds would equal the prevailing central bank base rate, which would be guaranteed by the state.
- the real estate fund would enter into framework agreements with a few (or all) commercial banks, according to which, depending on their temporary liquidity, these banks would subscribe to real estate bonds – instead of the central bank's two-week bonds – issued by the real estate fund which would be guaranteed by the state and earn similar yields.

⑫ There could be exceptional situations, when banks would be unable to or would not want to reduce their current liquidity (solvency) by buying even two-week bonds. Taking such temporary scenarios into consideration, two additional sources of financing should be ensured as well, with the emphasis being on their temporary nature:

- the shareholding companies of the

Hungarian Development Bank (MFB) would buy real estate bonds to temporarily tie down their free financial assets; under regular circumstances, when the liquidity position of the real estate fund does not make it necessary, they would continue to place those assets with commercial banks as is the commonly accepted practice today.

- as a last resort, the foreign currency reserves of the central bank could be brought in as a financing source.

The exceptional advantage of this type of financing is that if commercial banks buy two-week central bank issued bonds, the central bank incurs an expenditure equal to the prevailing central bank base rate, which will, in turn, reduce its annual profit. If, however, the commercial bank buys a bond issued by the real estate fund for the same tenor and earning the same yield, then no expenditure is generated at the central bank, and therefore, its annual profit will be not reduced (if it is loss-making its losses would not increase either), it is true, however, that the real estate fund would have an equally sized yield payment obligation towards the commercial bank. The reduction of central bank expenditure and the increase in the expenditure of the real estate fund would cancel each other out, which also happens in reality as the profit of the central bank is consolidated into the central budget of the Hungarian state at the end of each year.

Naturally, the real estate fund could be extended to not only cover foreign currency debtors but also forint debtors, based on social and business considerations, and this extension is actually justified.

The argument emphasised earlier is an important issue: if, in the case of mortgage loans, the selling price of the real property is lower than the principal and interest debt of the debtor, the bank cannot have any further claims against the former debtor following the enforcement of the pledged collateral.

## WHAT HAS HAPPENED AND WHAT IS HAPPENING ON THE BASIS OF THE LEGAL REGULATIONS PASSED IN 2011 AND 2012?

Parliament passed legislation to help out performing foreign currency debtors by providing the option of early repayment of their debts at a preferential exchange rate.

Banks were allowed to reject these preferential early repayment applications if the client was unable to prove by 30 January 2012 that they had the relevant cash funds or a promissory note from another credit institution available to redeem their loans. The preferential loan redemption scheme was closed on 29 February 2012. According to the data of the Hungarian Financial Supervisory Authority loans were redeemed at a total value of HUF 984.2 billion, which is HUF 1354.4 billion calculated at market value. The number of agreements closed as a result of the preferential loan redemption scheme came to 169 256, of which 51 858 clients took out another bank loan at a total value of HUF 312.7 billion. The difference between the market exchange rate and the preferential interest rate set out by the relevant act of legislation came to HUF 370.2 billion, 30 per cent (HUF 111.06 billion) of which the banks were allowed to write-off from their bank tax payment obligation, therefore, the losses of the banks came to at least HUF 259.14 billion.

The actual balance of the preferential loan redemption scheme cannot be known, we can only speculate as to its size. The foreign currency denominated principal and interest repayment obligations of the clients have ceased to exist, their losses originating from the difference between the exchange rate at the time of the credit application and at the time of repayment were also reduced as a result of the preferential interest rate guaranteed by the legislation. Not only is it impossible to estimate

the end-result of the decision to repay the foreign currency debt, but it is also impossible to estimate whether it would have been a positive (profitable) or a negative (loss-making) result. For any given agreement, the closing positions of the client could only be determined at the end of the tenor as specified in the agreement, on the basis of the repayments made at the actual market prices and at the given interest rates.

The losses incurred by the banks would theoretically be equal to the reduction in the losses of the clients who have entered the preferential loan redemption scheme, but the 30-per cent write-off from the banking tax reduces these losses. The HUF 111.06 billion that corresponds to the 30-per cent write-off is lost income from the perspective of public finances, and as such it is a loss (lost income or reduction in services) that has been spread across the entire range of taxpayers. The position of the persons who have entered the preferential loan redemption scheme was closed, but the position of banks may only be considered closed if it is certain that they will not seek damages for their losses in court. If that possibility cannot be excluded, then the loss that has been spread across the full range of society will increase accordingly.

The repayment option under a so-called exchange rate cap scheme has also been set out in an act of legislation. In addition to the foreign currency debtors with mortgage loans, the opportunity is also open for leasing agreements concluded before 15 December 2011. The preferential rate is not applicable to debtors with a default over 90 days, which is equal to or exceeding HUF 78 thousand. At the time of the repayments of their loans, debtors only have to pay their instalments in Hungarian forints, calculated at HUF 180 for CHF loans, HUF 250 for EUR loans and HUF 2.5 for JPY loans, the remaining part of the principal repayments is collected on a separate buffer account,

and debtors will have start repaying that part in 2017. The interest repayment part of the monthly foreign currency loan repayment instalments, in excess of the exchange rate cap, are borne by the state and the bank 50/50, i.e., the bank waives 50 per cent of the interest repayment, while the state refunds the other 50 per cent to the bank. To avoid any misunderstandings, it should be noted that the interest on the HUF-denominated principal being accumulated on the buffer account is not waived or taken over by anyone.

Above the following exchange rates, the exchange risk is fully borne by the central budget: HUF 270/CHF, HUF 340/EUR and HUF 3.3/JPY. Justification: If the Hungarian forint were to weaken to such a magnitude that could only be the result of systemic risks, which can only be counteracted by the government (state).

The third group includes foreign currency debtors with a continuous default over 90 days as of 30 September 2011. Such debtors were obligated to declare by 15 March 2012 that they were unable to meet their repayment obligations. Banks will convert foreign currency loans to HUF by 15 May 2012 and may also waive 25 per cent of the debt, if the market value of the pledged real property was below the amount specified in the relevant legislation and the debtor is raising at least one child, who is a minor. After the conversion of the loan debtors are also eligible to receive a gradually decreasing five-year interest rate subsidy.

The final instrument of state intervention is to purchase the flats and houses of insolvent debtors. The National Asset Management Company could buy 8 thousand residential properties by the end of 2012 and as many as 25 thousand by the end of 2014. The previous owner may rent the apartment at a monthly rate of one twelfth of 1.5 per cent of the market value of the real property, which is to be adjusted to inflation every year.

## WHAT ARE THE POSSIBLE AND NECESSARY ACTIONS IN THE FUTURE?

The interest and principal repayment of retail loans is determined by the so-called annuity method, as a result of which during the full tenor of the loan (assuming the conditions remain the same) the amount of the repayment is structured in a way that within the same repayment amount the interest part of the repayment gradually decreases, while the principal repayment part gradually increases (at the beginning of the tenor of a loan, a large portion of the repayment consists of interest, whereas at the end of the tenor the larger part of the repayment goes towards principal repayment).

Other, simpler methods are used for calculating corporate loan repayments. The amount of principal repayments is the same for the entire tenor of the loan (assuming the conditions remain the same), because the loan amount is divided by the number of repayments (for 5-year HUF 6 million loan, the monthly repayment comes to HUF 6 million/60 months = HUF 100 000). The interest payable on the loan is calculated on the basis of the remaining principal amount every month. As a result, while the principal repayment remains the same every month, the interest paid is gradually reduced and the repayment amount also gradually decreases month by month. The repayments are the highest at the beginning of the tenor of the loan and they are at their lowest at the end of the tenor.

When does the choice between these calculation methods matter the most? If the creditworthiness of borrowers is determined by their repayment capacity, calculated on the basis of their income, the annuity method allows for a higher original loan amount. The other method, due to the higher initial repayment, only allows for a smaller loan amount, which is why it is regarded as a more cautious method. It is also safer, because higher payments are

more realistic at the beginning of the tenor of the loan, compared to later in the term. If banks had not applied the annuity method to the CHF-denominated mortgage loans (if they stopped using it in the future!), debtors would have only been eligible for much smaller loans based on their actual income, and due to the higher repayment obligations at the beginning of the tenor of the loan, their current out-

standing debt would be smaller as well. As a result, external shocks could influence clients' solvency to a lesser extent, and the later the shock happens during the tenor of the loan, the better the position of the client and the bank.

Using the annuity method increases the repayment risk of loans, while switching to another calculation method would reduce that risk.

## NOTES

<sup>1</sup> The table clearly shows that the bank with the largest market share in Hungary, OTP Bank Nyrt had caught up with the total credit institution foreign currency financing ratio by 2005, presumably to preserve its market share. Then, starting in 2006 it did not follow the strong push of other credit institutions to encourage foreign currency loan repayment, the ratio of foreign currency loans within the bank stabilised around 20 per cent, while its market share

decreased significantly, with the ratio of forint-denominated loans remaining unchanged until the onset of the crisis.

<sup>2</sup> Although there are some examples of converting the foreign currency denominated debt of the private sector outside Europe, their effectiveness is doubtful to say the least (see: Stone, 1998 and Laeven - Laryea, 2009).

## LITERATURE

BASSO, H. S. – CALVO-GONZALEZ, O. – JURGILAS, M. (2007): Financial dollarization – the role of banks and interest rates. Working paper Series 748, European Central Bank

LAEVEN, L-L. TH. (2009): Principles of household debt restructuring. IMF staff position note

ROSENBERG, CH. B. – TIRPAK, M. (2008): Determinants of Foreign Currency Borrowing in the

New Member States of the EU. IMF Working Paper 08/173.

STONE, M. R. (1998): Corporate debt restructuring in East Asia: Some lessons from international experience. IMF paper on policy analysis and assessment

Report on Financial Stability, MNB (2008)

Report on Financial Stability, MNB (2009)

Report on Financial Stability, MNB (2010)