An important dimension of the economic reforms after the end of communism was the development of housing finance. While the early transition period was characterised by a lack of any comprehensive housing policy, the year 2000 marked a turning point. In that year, the Hungarian government introduced a generous housing subsidy scheme, one of the main elements of which was interest subsidies. This new subsidy scheme had both positive and negative economic consequences. On the positive side, it has contributed to the dramatic increase in household borrowing and simultaneously paved the way for the development of the previously inert mortgage market. On the negative side, it imposed a mounting burden on the government budget. This arose from a sharp increase in household fixed investment in real estate matched by dynamic consumption growth. Amid fears about internal and external economic stability and in view of the prevailing fiscal constraints, the Hungarian government decided to substantially cut back the housing subsidies in 2003. Following the subsidy tightening measures, many households decided to opt for foreign-currency denominated loans, a choice not void of risks. A stronger policy co-ordination is called for including prudent fiscal, supervisory and monetary policies to reduce the prevailing and potential risks in the economy.

Mortgages and housing markets: in theory

“Housing is perhaps the most complex economic good to analyse and manage properly because of its durability, heterogeneity, spatial fixity and sensitivity to the specific financial and regulatory environment in which it is provided” (Renaud, 1996). This complexity extends also to the interrelationship between mortgage and housing markets which has recently been the focus of much attention among researchers and policy makers. The economic literature has broadly analysed these two markets and how the interplay between them can amplify the effect of shocks on house prices, economic growth and the financial position of households with possible consequences for the financial system (ECB, 2003). Furthermore, developments in the housing and mortgage markets can have effects on the business cycle via different channels (European Commission, 2005): (1) the interest rate channel, (2) the wealth effect, (3) the credit channel, and (4) the impact on residential construction.

The first channel implies that changes in the monetary policy stance such as lower short-term interest rates may affect the demand for housing properties translating into a change in house prices. In addition, a change in interest rates is also reflected in mortgage rates, thereby affecting households’ disposable income.
The second important channel is the wealth effect on non-housing consumption generated by the changes in house prices. Households might increase their level of consumption in response to rising house prices, as a result of the increase in their housing wealth. Empirical evidence suggests that changes in house prices contribute to higher domestic demand in some smaller EU Member States, whereas the impact of the housing wealth effect on consumption seems to be less significant in the larger Member States such as Germany and Italy (European Commission, 2005).

The third channel often discussed in recent economic literature is the credit channel. An increase in property prices raises the value of the collateral available to households, which enables them to borrow more from the credit system, which in turn can be used for financing consumption or investment. The ability to extract the equity from housing wealth is determined by various characteristics of the retail finance systems and mortgage markets, such as the level of transaction costs and the degree of competition. The literature refers to this effect also as “house equity withdrawal”, which appears to be of major quantitative relevance in only a few EU countries.

The fourth main channel is the effect of house price fluctuations on residential construction. This involves that the market value of the property increases compared to its reproduction cost arising from higher house prices, which gives impetus to the construction of new dwellings.

In addition, public policies, such as taxes or subsidies affecting the functioning of the housing market can be sources of independent shocks and may influence the response of housing markets to economic shocks as well (ECB, 2003). This is exemplified in Hungary, where the strong increase in housing subsidies and its subsequent reduction may have induced households to increase their foreign currency borrowing. This is a somewhat surprising but possibly important link between public policy and foreign exchange markets, especially in the case of transition economies.

The evolution of the Hungarian housing market

Before 1989, most transition economies were characterised by heavy state control on both the demand and supply side without the operation of market mechanisms (Hegedüs and Varhegyi, 1999). The housing sector in Hungary was heavily subsidised during the socialist regime, with home-buyers having access not only to subsidised housing loans but also to an up-front subsidy based on household size (Hegedüs and Varhegyi, 1999).

However, in the wake of the collapse of the centrally-planned economy in 1989, the government decided to abolish the housing subsidies on account of the rising budget deficit. As a result, the formerly subsidised housing loans were transformed into market-rate loans. This imposed a severe debt burden on households, and the fact that the market-based housing finance system came after the comprehensive housing privatisation process was also a major obstacle to its development.

Nevertheless, the privatisation process also paved the way for long-term mortgage lending, since it is generally accepted that there is no demand in the absence of a functioning private housing market (Kornai, 1992). Regarding the macroeconomic environment, the main pre-requisites of a market-based housing finance system were the resumption of economic growth, the decline in inflation, the recovery of real wages and employment stability. Hungary, along with other ‘advanced reformers’ began to meet these conditions at the beginning of the nineties (Renaud, 1996).

The beginning of the transition period in Hungary, in the late eighties, was characterised by the lack of a comprehensive housing policy. Furthermore, high inflation prevailed and there was a sharp increase in house prices and interest rates as a result of price liberalisation. Mortgage-related loan portfolios were practically non-existent, and only those who had their own funds could afford to construct or buy homes. All of this was reflected in a decline in housing construction. Although there was a move towards a two-tier banking system in the early nineties, the role of loans in housing finance was not significant with the loan-to-house-value ratio...
dropping below 10%, compared to a ratio of around 60-80% in market-oriented housing systems (Hegedüs and Varhégyi, 1999). This was a widespread phenomenon in Central and Eastern European countries in 1990-1994 with the exception of Poland (Hegedüs et al., 1996).

The year 2000 marked a turning point when the government launched a new housing subsidy scheme. The main economic rationale was to provide incentives for new housing constructions following the declining trend of the 1990s. This new scheme allocated substantial funds for subsidising interest rates on long-term mortgage loans. The most important measures included interest rate subsidies on loans for the purchase and construction of new houses. They were later extended to purchasing, enlarging and modernising existing dwellings. These measures were coupled with a personal income tax exemption related to the housing loan repayments in the personal income tax (40% of the loan repayment could be deducted from the tax base in 2002). According to rough estimations, the total housing subsidy may have reached about 1.5-2% of GDP. In the light of a high budget deficit and worsening macroeconomic conditions, the government later decided to tighten the conditions of the mortgage programme in several steps. In particular, tax exemptions in personal income tax for mortgage repayment were substantially cut and the scope of the housing loan subsidies was reduced in mid-2003 and the beginning of 2004.

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The subsidy scheme, from the year 2000 onwards, contributed to a significant increase in new constructions and to the birth of the mortgage market, which resulted in a gradual increase in mortgage loans. Stimulated by the growth in mortgage loans, the mortgage bond market also evolved rapidly.

The stock of mortgage bonds issued by the three major mortgage banks operating as mortgage centres has reached around 6 percent of GDP (end 2004). However, the absorption capacity of the mortgage bond market is still rather limited due to the fierce competition generated by government securities, which typically benefits from higher liquidity levels and more easily accessible primary and secondary marketing channels. Therefore households might consider the financing of real estate loans with mortgage bonds less favourably, which could explain why the development Hungarian mortgage bond market is still at an early stage (Kiss and Vas, 2002). The preconditions for receiving the Hungarian mortgage subsidy is that the mortgage must be channelled through a mortgage bank. Despite the higher demand and hence greater competition created by the mortgage loan subsidies, the mortgage lending market nevertheless remains highly concentrated with three mortgage banks dominating the market.

Although there has been a sharp increase in mortgage lending, the share of domestic mortgage-type housing loans as a percentage of GDP was still low in 2002 (4.5%) compared to the EU average (42.6%). However, housing-related mortgage lending had nearly doubled by the end of 2003, reaching about 9 percent of GDP.
At the same time, mortgage foreclosure appears to be efficient. In the absence of historical credit loss databases, banks are limiting their credit risk exposure from mortgages by keeping loan-to-value ratios relatively low (on average between 40% and 50%). As a result, the share of non-performing mortgage loans is currently less than 1% (MNB, 2004a).

![Chart 2: Comparative housing loans in 1991-2003](image)

Source: European Mortgage Federation

**Macroeconomic and fiscal effects of the housing subsidies**

House equity withdrawal became a significant macroeconomic phenomenon in the last few years. Households switched from lower consumption and indebtedness towards higher consumption levels, which was an important driving force for growth. Based on the Hungarian National Bank’s calculations, in 2001-2003 households spent around 15-30% of mortgage loans granted for the purchase of existing houses on financing consumption. This is equivalent to 0.5-1% of disposable income (MNB, 2004b).

As a negative consequence, the increase in the household loan portfolio was accompanied by a decline in the savings rate, mainly due to the introduction of the housing subsidy scheme. This stemmed from a boom in household fixed investment in real properties together with a very large expansion of consumption exceeding the growth rate of real income.

![Chart 3: The ratio of households' net financial savings to disposable income](image)

Source: MNB

The strong recourse to interest subsidies contributed not only to the neutralisation of the constantly tightened monetary policy, but also created an additional burden on the budget. In particular in the year 2002, already heavily burdened by fiscal expansion, the increase in government subsidies further aggravated the fiscal pressure. Amid fears that this subsidy scheme might no longer be sustainable due to the fact that all the interest risk was borne by the central budget and with currency...
turbulences in the course of 2003 substantially increasing interest rates, the Hungarian government decided to cut the subsidies sharply in December 2003, and again - though to a lesser degree - in January 2004.

In response to these tighter subsidy conditions, foreign-exchange denominated mortgage appeared as a new instrument in the lending market and household foreign currency borrowing increased sharply. Most banks started to launch foreign currency credit products targeting a wider range of customers, who benefited from the lower nominal interest rates of foreign-currency denominated loans compared with the high forint mortgage rates. In spite of the strong growth of foreign currency housing loans (which increased by over 400% as a proportion of GDP between December 2003 and September 2004), foreign currency loans remained relatively small (0.44% of GDP), due to the very low base level. Statistical data on new Member States show that regarding the ratio of foreign currency loans to total household sector loans varying between 0% and 67%, Hungary is in the middle range with 24% (MNB, 2004a).

This entails economic and financial risks: (1) increased foreign currency lending might add to the vulnerability of the financial sector when faced with external shocks; (2) it imposes a greater exchange rate risk exposure on borrowers; (3) an interest rate or exchange rate shock might increase the debt burden of households, which may lead to a slowdown in aggregate consumption (MNB, 2004a).

Conclusion

The withdrawal of housing subsidies prompted a shift to foreign currency borrowing. Households sought an alternative source of low interest rate housing finance, following the subsidy tightening measures, but in so doing may not have fully taken into account the exchange rate risk associated with these foreign currency loans. If foreign currency lending further intensifies, it might add to the vulnerability of the financial sector when faced with external shocks and it would also impose a greater exchange rate risk exposure for borrowers. An interest rate or exchange rate shock might increase the debt burden of households, which might lead to a slowdown in aggregate consumption (MNB, 2004a). Some key policy lessons emerge from this experience. To mitigate the impact of high domestic interest rates on the development of the housing market, the government introduced initially a tax distortion, and subsequently banks and households appear to have engaged in underpricing of currency risk. In reality, the sustainable way to address household concerns about the cost of mortgage borrowing, without introducing fiscal distortions, must be based on balanced macroeconomic policies and a sound policy mix, which would promote a durable decline in domestic interest rates. This is the key implication of the experience discussed above. The prerequisites for this are a prudent fiscal policy ensuring low interest rates, monetary policy accepting exchange rate variability to discourage non-hedged borrowing, and a supervisory policy ensuring that indirect risks of foreign currency lending are internalised by banks and reflected in loan pricing.
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