

Péter Koroknai and Rita Lénárt-Odorán: Developments in external borrowing by individual sectors*, 1

This article examines trends and developments in the external financing of the Hungarian economy from the perspective of external borrowing by individual sectors. In the pre-crisis period, economic agents' spending exceeded their revenues, as a result of which the country had to rely on foreign borrowing. In addition to direct external borrowing by the government and companies, the banking system also relied on external borrowing to a large extent in relation to its lending to companies and households. This was also reflected in a rise in the country's external debt indicators, which added to the vulnerability of the Hungarian economy.

During the crisis, domestic demand fell and the previous high deficit on the balance of payments turned into surplus. This also means that, due to a rise in the savings of economic agents, the country no longer has to rely on external borrowing and net repayment of loans taken out earlier is underway, i.e. earlier borrowing is being followed by an outflow of funds. Repayment of external funds is not occurring in each sector. On the one hand, the repayment of loans granted to the private sector triggered a sizeable outflow of funds from the banking system, while on the other hand, there was hardly any change in net external funds granted to the corporate sector; at the same time, the consolidated general government continues to borrow.

The adjustment process, which started after the crisis, is likely to continue in the years to come, and this may lead to a further increase in the external surplus of the economy and an acceleration of outflows of foreign funds. Our forecast for the period to 2013 implies a slower decrease in external funds granted to banks, but on the other hand, in contrast to earlier years, a net outflow of funds is likely to materialise at the level of public finances as well. As regards debt indicators, the repayment of foreign funds is not yet fully reflected in lower external debt ratios, due to the depreciation of the forint. With a more marked outflow of funds, a quick fall in external debt ratios is also expected to materialise.

INTRODUCTION

Developments in external equilibrium and external debt indicators are key to the financial vulnerability of the country. One of the underlying reasons why improved external financing capacity (i.e. net lending), the outflow of funds from certain sectors and changes in debt indicators are important is that they may influence the risk perception of the Hungarian economy and risk premia. Developments in external funds held by the individual sectors may also help assess how external funds borrowed by the banking system were affected by heavy foreign currency lending to households and the financing of the fiscal deficit.

Fundamentally, there are three approaches to the analysis of external balance processes (Chart 1 summarises the various analysis options).

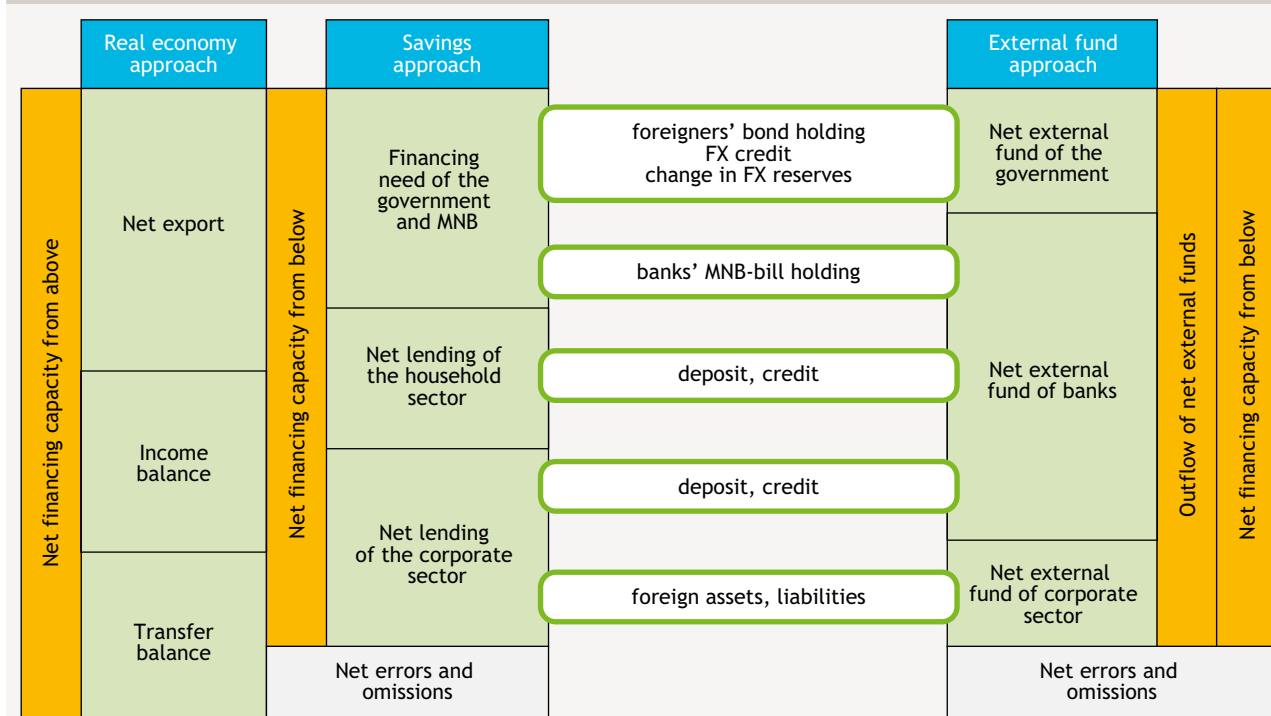
- *The real economy approach* shows – on the basis of the external financing capacity/requirement (i.e. net lending/borrowing) calculated as the sum of net exports recorded in the balance of payments, the balance of income and the balance of transfers – whether domestic use (e.g. consumption and investment) is lower/higher in overall terms than the revenues generated. Before the outbreak of the crisis Hungary had a net borrowing position, whereas currently there is a significant amount of

* The views expressed in this article are those of the author(s) and do not necessarily reflect the official view of the Magyar Nemzeti Bank.

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Chart 1

The external financing capacity of the sectors and a stylised chart of the outflow of external funds



external surplus, i.e. domestic use at whole economy level is lower than the revenues earned, as a result of which the country is in a net saving position.

- The second approach, i.e. the *savings approach*, is based on the fact that the sum of the financial positions of the individual economic agents is identical with that of the total savings of the economy, i.e. the external financing capacity (net lending). This approach is reflected in the financial accounts, which show the share of the individual sectors in the economy's net savings or net borrowing position. Before 2009, in Hungary the external financing requirement of the sectors was the outcome of the fact that the financing requirement of the companies and general government exceeded households' financial savings. By contrast, the net financial savings of households and the corporate sector currently exceed the general government deficit to a significant degree. Accordingly, the country has a sizeable external surplus.
- The third approach forms the basis of this article: the starting point of this approach is the financial balance

that reflects the financing-side processes of the balance of payments and *focuses on the processes of borrowing*.² Developments in the holdings of external funds in the economy reflect savings by domestic agents and the external equilibrium of the economy. If an economy is faced with external imbalances, i.e. both the current account and the capital account show a deficit, then the borrowing of external funds is inevitable. While the economy was a net borrower before the crisis, i.e. external funds were used to finance the portion of domestic use that exceeded revenues, since the outbreak of the crisis, concurrently with the development of the economy's domestic saving position, loans taken out earlier are being repaid, i.e. funds are flowing out.³

It is important to identify the interconnection between domestic savings and funds borrowed abroad. Domestic sectors may have financial (asset) claims from and liabilities to each other and the rest of the world. An example of domestic financing is when government securities are purchased by households, in which case such securities are assets held by households and debt owed by the state. An

² The result of this approach and/or the one based on the financial savings of the sectors are/is also referred to as bottom-up financing capacity/needs, as it is based on the financial balance recorded in the bottom section of the balance of payments.

³ An outflow of funds may, in a net sense, occur in two different ways: one is reduction in external debt (e.g. loan repayments or redemption of maturing bonds), the other is an increase in assets abroad (e.g. lending abroad or placement of deposits abroad). For instance, the outflow of banks' external funds experienced over the past few years occurred by banks reducing their assets abroad (inflow of funds) and loans borrowed abroad earlier to a much larger extent (outflow of funds). Overall, banks' financial position vis-à-vis the rest of the world has improved significantly (net outflow of funds).

example of external borrowing is when foreigners subscribe foreign currency government bonds or when multinational companies and banks borrow from their respective parent companies and parent banks, respectively. The external financing of an economy may also occur in the domestic market, typically through banks. Companies and households borrow almost exclusively from domestic banks, which, in turn, borrow abroad in order to satisfy their borrowing requirements.

Our article is structured as follows: First, we provide an overview of past developments in the net savings of the individual sectors, after which, based on the Quarterly Report on Inflation, we briefly summarise what we can expect in connection with the savings of the individual sectors in 2012 and 2013. Next, we go on to discuss the main subject matter of this article, i.e. developments in the external funds of the individual sectors. As regards the marked increase in the external financing capacity, we focus on the sectors whose outflows of funds have resulted in this increased capacity. The next section covers the changes which the expected pronounced rise in external financing capacity is likely to bring about in the funds available to the major institutional sectors. Finally, we study the changes that have occurred and those yet to occur in the debt indicators which depend primarily on developments in external funding.

FINANCIAL SAVINGS OF INDIVIDUAL SECTORS

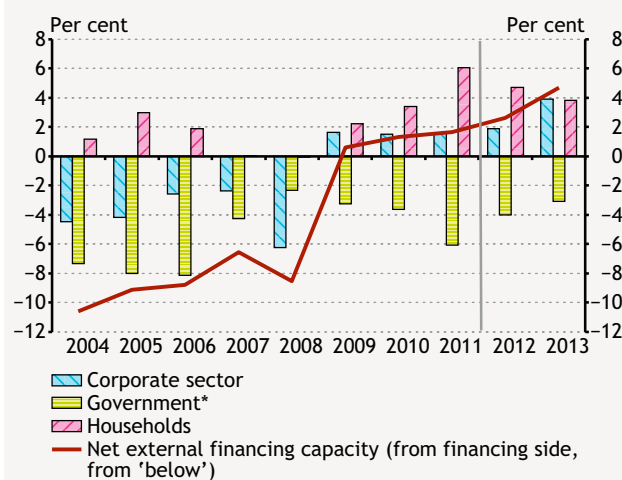
In this section, we rely mainly on the analytical framework used in the inflation reports. External financing capacity is the sum of the financing capacity/requirement of general government (consolidated with the MNB), households and companies.

Prior to the outbreak of the crisis, the reduction in the general government financing requirement was broadly counterbalanced by the decline in the financial savings of the private sector. Consequently, Hungary's external balance did not improve materially. Adjustments after 2006 improved the fiscal balance markedly: the SNA-based (pension fund savings-adjusted) GDP-proportionate financing requirement of general government dropped from 8 per cent in 2006 to 2 per cent in 2008 (Chart 2). At the same time, these fiscal adjustments resulted in a significant deterioration in the private sector's income position. The financing requirement of the corporate sector grew, while households reduced their net financial savings, as a result of smoothing consumption. Thus, overall, the net savings of the domestic sectors declined, and consequently the external financing requirement of the Hungarian economy

did not decrease. Accordingly, the country's dependence on external funding amounted to around 8 per cent of GDP, similar to 2006.

After the outbreak of the crisis, the government's financing requirement rose, but due to private sector adjustments, the external balance improved spectacularly. After the outbreak of the crisis, the inflow of external funds fell dramatically. The drying up of funds led to a decline in lending and harsher liquidity constraints, and forced the private sector to adjust quickly, which was reflected in a downturn in borrowing. The earlier significant financing requirement of the corporate sector dropped, and then turned into a net savings position. On the real economy side, this was mainly attributable to a fall in gross capital formation (investment and inventory building). The increase in the sector's financial savings was also boosted by rising transfers from the EU. The underlying reason for a rise in the general government financing requirement in the first three years of the crisis was falling tax revenues in response to the cyclical position; in 2011 lower personal tax burden was another contributing factor. Households' disposable income, which grew due to lower personal income tax rates, went into mostly financial savings, which grew further in 2011 as a result of the disbursement of pension fund real yields. Households were also cautious about borrowing and decided to pay off their loan debts, which also added to the sector's net financial savings. Thanks to the adjustment of the private sector and, within

Chart 2
Developments in the net lending position of the individual sectors
(as a proportion of GDP)



* General government includes the central budget, local governments, ÁPV Zrt., quasi-fiscal entities (MÁV and BKV), the MNB and entities implementing investment projects which are formally PPPs, but are initiated by the government. The SNA-based financing requirement is shown for general government, which does not include payments into pension funds and is different from the official (ESA) balances.

that, companies, the country's external financing capacity improved significantly. All in all, the savings of domestic economic agents have been in the positive domain since 2009, as a result of which there has been no need for external borrowing; in fact, the past few years has even seen an outflow of funds.

In 2012 and 2013, the country's external equilibrium position is expected to continue improving significantly. The *Inflation Report* claims that further increases in net exports and anticipated higher EU transfers will result in additional improvement in the external financing capacity of the Hungarian economy. Net exports are boosted by the launch of car manufacturing, as well as by developments in imports, which, in response to weak domestic consumption, are just moderate. The reasons underlying the increase in the net saving position at the whole economy level is the improved financial position of the general government and companies. Lower fiscal deficits are the outcome of the Structural Reform Programmes, in response to which domestic demand is likely to remain subdued. Higher corporate savings are due to weaker investment and higher EU transfers. Households' savings may decrease as a result of the absence of one-off items boosting savings (disbursement of real returns by pension funds and early repayments of foreign currency loans). Overall, the external financing capacity of the Hungarian economy is likely to approach 3 per cent of GDP this year and 5 per cent next year; i.e. an outflow of funds amounting to a total of around 8 per cent of GDP is expected to materialise over two years.

HOW HAS THE CRISIS AFFECTED BORROWING BY THE INDIVIDUAL SECTORS?

The next section presents an overview of external borrowing by the individual sectors. For the purpose of this analysis, we rely on the sectoral breakdown of the financing side of the balance of payments, where the net liabilities (assets and debts) of direct investment capital, portfolio equities and other debt liabilities are totalled.

Two major differences should be borne in mind in connection with the net savings of the individual sectors. One is that, except for foreign currency purchases, households do not have any direct link with the rest of the world. The other is that most loans to the private sector are channelled via banks; i.e. part of financing the private sector materialises through the balance sheet of the banking system in the process of external financing. It follows that there are the following sectors on the financing side of the balance of payments: general government, the MNB, the banking

system and other private sectors (mostly transactions by non-financial corporations with the rest of the world).

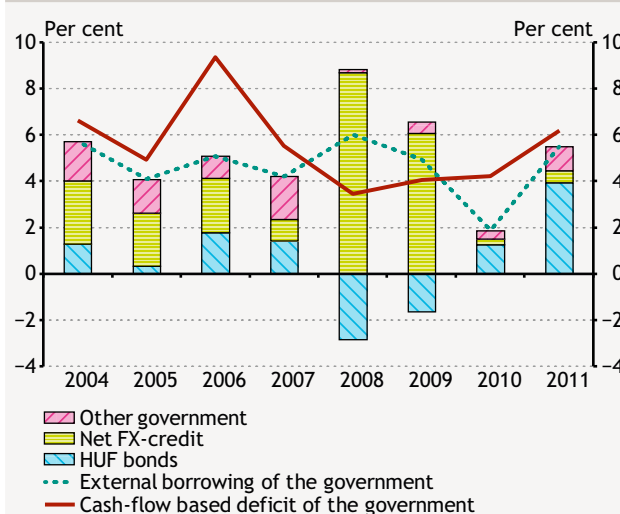
General government

Before the crisis, general government used external funds to cover only part of the deficit; in 2008 and 2009, however, external funds in an amount exceeding the deficit were used. The government's reliance on external funds is linked to the financing of the fiscal deficit: the government's issuance of foreign currency bonds, purchases of government securities by foreigners and other minor financing items (privatisation, development loans from international organisations and the pre- and post-financing of EU transfers) represent inflows of external funds. During the years preceding the crisis, in order to finance the deficit, the government relied on both external funds and purchases of government securities by domestic sectors. However, after the outbreak of the crisis, the situation changed. As domestic sectors consistently downsized their holdings of government securities till 2011 on the whole, external borrowing by the government was similar in volume to what we experienced earlier (Chart 3), despite a decline in the GFS (the cash-flow based) deficit in 2008 and 2009.

There were, however, two reasons behind this borrowing in an amount exceeding the deficit. One was that, due to problems in the government securities market, the issuance

Chart 3
The borrowing requirement and external borrowing of general government

(as a proportion of GDP)



Note: The chart plots the GFS, or cash-flow based deficit to be actually financed rather than the borrowing demand on an accrual basis in Chart 2. In 2010, the government's external borrowing was rather modest thanks to the repayment of the loans granted to banks earlier (HUF 200 billion) and an increase in the mark-to-market stock, due to the weakening of the euro (HUF 250 billion).

of longer-term government securities was temporarily suspended, while the sale of short-term securities remained undisturbed; simultaneously, repayments at the maturity dates of the government securities issued earlier had to continue. The other was that in an uncertain international situation, in order to boost foreign investor confidence, the government strove to increase its reserves of financing

funds. This led to an enhanced role of foreign currency loans granted by international organisations and consistently strong external borrowing. In the past two years, the government's net borrowing has been modest relative to earlier years; by contrast, purchases of government securities by the rest of the world has been on the increase in the context of rising borrowing demand.

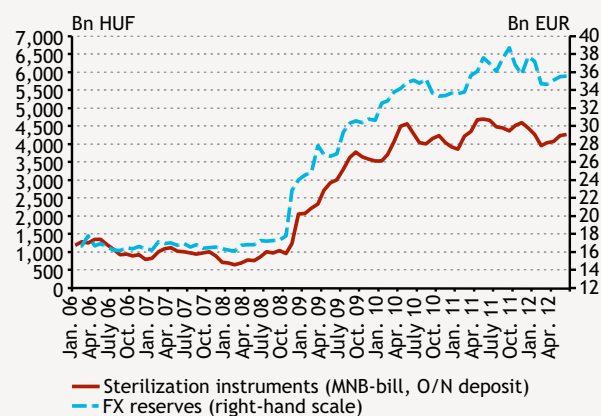
The government's foreign currency borrowing and the stock of MNB bills

When the government takes out a foreign currency loan, it then places the foreign currency it receives with the central bank, as a result of which the MNB's FX reserves increase. The budget uses the loan taken to finance the deficit, i.e. it needs HUF and has the loan converted into forint by the MNB. Thus, the government's foreign currency deposit is converted into a forint deposit without any change in the MNB's FX reserves. When the government makes payments (e.g. it pays pensions or wages to public servants), it depletes its forint deposit placed with the MNB. In response to the payments, the economy's liquidity increases (economic agents place the funds received as deposits with banks, or the funds spent by them are placed by the agents as deposits at the banks which receive them), which, ultimately, increases the funds of the banking system. Banks place such excess liquidity with the MNB in the form of two-week bills, i.e. a decrease in the government's deposit portfolio with the MNB is counterbalanced by a rise in holdings of MNB bills. All in all, any foreign currency loan granted to the government increases the MNB's liability due to an increase in the stock of MNB bills. Due to the above process, the stock of MNB bills increases similarly to FX reserves, with the latter growing, as a rule, in response to the government's net foreign currency borrowing (Chart 4). Concurrently with the government's foreign currency borrowing, the MNB also borrows from domestic agents (typically from banks) by issuing MNB bills. Ultimately, the general government consolidated with the MNB finances the increase in the FX reserves and government spending by means of the foreign currency loans borrowed and two-week bills.

The above process has two consequences as to external borrowing.

1. As the MNB's FX reserves increase (an increase in foreign assets entails the outflow of external funds) concurrently with the government's foreign currency borrowing (external borrowing), the financing of the budget through foreign currency loans means zero external borrowing in net terms for the general government in the broader sense. Accordingly, developments in external borrowing by the general government should be examined consolidated with the MNB (Chart 5).
2. Concurrently with foreign currency borrowing, the stock of MNB bills, the majority of which are held by banks, also rise. As banks also need external funds to finance their assets, ultimately, this also means that the government's foreign currency borrowing contributes to a rise in banks' external borrowing (or a lower outflow of foreign funds relative to the available possibilities); this issue is revisited in the section on developments in external borrowing by banks.

Chart 4
Developments in FX reserves and the sterilisation portfolio

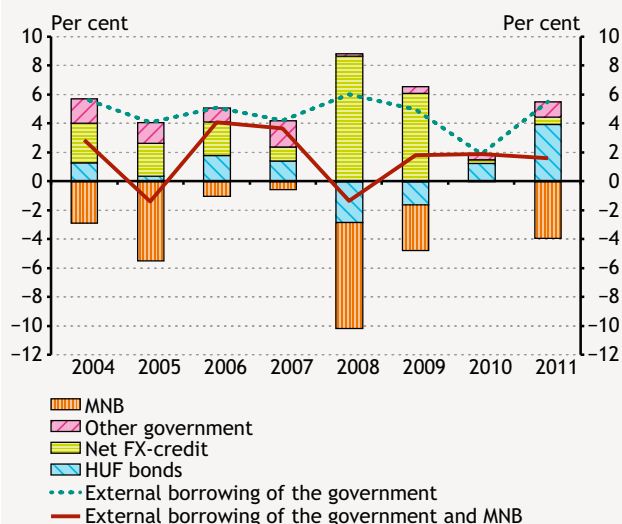


After the outbreak of the crisis, the government's external borrowing continued even after correcting for growth in FX reserves. The discussion presented in the above box reveals that the government's external borrowing should be examined on a consolidated basis with the MNB. According to this argument, although an outflow of funds

that materialises in response to an increase in FX reserves reduces the size of external borrowing significantly, the government's external borrowing was typical in both the pre- and post-crisis period. There was no external borrowing at the level of the general government consolidated with the MNB for two years. In 2005, the privatisation of

Chart 5
Borrowing requirement and external borrowing of the general government consolidated with the MNB

(as a proportion of GDP)



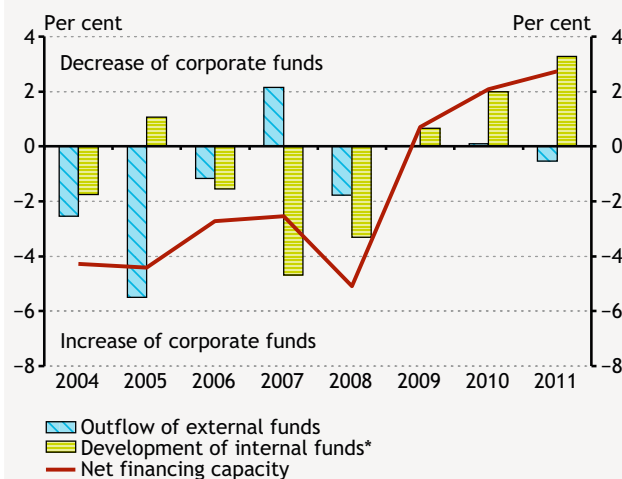
Budapest Airport increased the FX reserves by an extent exceeding 2 per cent of GDP (this outflow of funds reduced borrowing by the consolidated general government); in 2008, at the onset of the crisis foreign investors sold a huge amount of government securities.⁴ Over the past three years, external borrowing by the general government consolidated with the MNB has been rather stable, hovering at around 2 per cent of GDP.

The corporate sector

Prior to 2008, companies borrowed heavily abroad. During the years leading up to the crisis, the corporate sector financed its investment and business operations through strong domestic and external borrowing, which materialised, typically, through borrowing in an amount exceeding the placement of deposits, equity financing by the rest of the world and taking out foreign loans (e.g. loans from banks or parent companies). Thus, in addition to the banking system, the corporate sector also borrowed strongly abroad directly and indirectly by taking out foreign currency loans with the intermediation of banks (Chart 6).⁵

Chart 6
Breakdown of the corporate sector's financing capacity by net domestic and foreign liabilities

(as a proportion of GDP)



* Changes in the position vis-à-vis banks account for a major part of this (deposits less loans).

Note: Corporate financing capacity as illustrated in the chart does not include the financing capacity of banks, because the breakdown of funds is based on the balance of payments, which records the data of the non-bank private sector.

At the same time, however, overall, there has been no outflow of foreign funds in net terms from the corporate sector – the sector's rising financial savings are due to a decline in bank loans. After the outbreak of the crisis, the sales opportunities of companies began to deteriorate, which, in turn, led to falling investment spending and, ultimately, a decline in borrowing demand. Furthermore, the loss of confidence in response to the crisis also resulted in the drying up of external funds, which also narrowed companies' opportunities to access to foreign and domestic financing. As a result of very weak demand for and supply of loans, external and domestic borrowing by the corporate sector declined. At the same time, however, in contrast to the withdrawal of funds, no material outflow of foreign funds materialised at an aggregate level.⁶ Overall, neither foreign owners (shareholders) nor foreign banks reduced the funds granted to domestic companies⁷ – a development which, as we shall see, runs strongly counter to trends in banks' external funds. This also implies that almost the

⁴ In response to the foreign currency loans granted by the IMF/EU (borrowing), the MNB's FX reserves rose (outflow of funds), thus, all in all, it did not affect external borrowing.

⁵ An exception to this is the year 2007, when the purchase of MOL's treasury shares reduced investments by the rest of the world in Hungary by close to EUR 2 billion.

⁶ It should be noted that a zero outflow of funds at an aggregate level is the result of rather different processes on a stand-alone basis. Many companies saw their borrowing opportunities fall concurrently with the deepening of the crisis in Europe, and adjustments for the crisis are also likely to have entailed a forced reduction in funds. This impact is likely to have been counterbalanced by the fact that the parent banks of other companies continue to grant shareholders' loans to their subsidiaries, and companies are also likely to downsize their foreign assets.

⁷ The 2011 data were influenced by two individual impacts, which roughly counterbalance one another. The government's purchase of MOL shares reduced the ownership share of the rest of the world in domestic companies, i.e. this represented an outflow of funds. In the wake of the sale of assets subsequent to the transformation of the private pension fund scheme, the corporate sector's claim against the rest of the world declined to a corresponding extent, i.e. an inflow of funds in a similar amount materialised.

entire rise in corporate financial savings stemmed from an improvement in the position of companies vis-à-vis banks (i.e. mostly from loan repayment).

Banking system

Before the crisis, the net savings of the private sector were in the negative domain. The banking system borrowed abroad to finance the foreign currency loans granted to households and companies. Before the crisis, on the whole, the private sector was in a net borrowing position: in keeping with the normal functioning of the economy, the corporate sector had a sizeable financing requirement, whilst households' net financial savings had dropped close to zero by 2008 as a result of heavy borrowing. Likewise, before mid-2008, net borrowing by the private sector from banks exceeded the banking assets (bank deposits and bank bonds) of the private sector (Chart 7, dashed line). The rise in foreign currency lending subsequent to the tightening of the home subsidy scheme contributed to a sizeable pick-up in lending. The banking system looked mainly to parent banks for additional funds.⁸ In the meantime, liquid assets (government securities and MNB bills) in the banking system grew only moderately.

Over the past few years, the increase in private sector financial savings went hand in hand with a sizeable withdrawal of funds by banks. On the other hand, however, due to the crisis, banks' needs to hold liquid

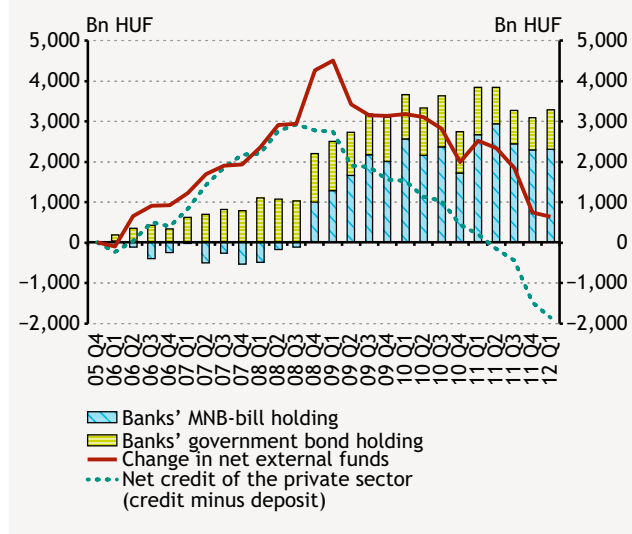
assets also grew, as a result of which banks' external funds declined more slowly than would have been justified on the basis of deposit placements and lending.

In response to the crisis, the private sector's sizeable net borrowing position – amounting to 6 per cent of GDP – turned into a net lending position of 4 per cent by 2009. As mentioned in the section on the corporate sector, the improvement in the position vis-à-vis banks played a decisive role in this. Low credit availability for the corporate sector and the deteriorating income position led to a downturn in demand for credit in the household sector as well, i.e. households' position vis-à-vis banks improved significantly. A major proportion of the financial savings comes from the decline in (repayment of) bank loans; the increase in holdings of bank securities was also a contributing factor. This means that the increase in the net savings of the private sector boosted banks' liquid assets considerably. Banks used this excess liquidity to finance two things. One is that on the asset side their holdings of MNB bills expanded further in response to the sterilisation portfolio growing concurrently with a rise in the FX reserves and a growing need to hold liquid assets (Chart 7). The other is that banks used their remaining liquid assets to repay loans they had borrowed abroad (Chart 7, the solid line, and the right-hand side of Chart 8 – banks borrowed abroad before the crisis; since 2009, the outflow of funds has been dominant).

The early repayment scheme in late 2011 and early 2012 significantly affected the financing processes of banks. During the early repayment programme, concurrent with the repayment of loans, the reduction in the external debt of banks accelerated, and this was only cushioned to a limited extent by the rising external financing stemming from capital increases at banks (i.e. inflows of direct investment capital). Due to reporting obligations, information on the anticipated scope of early repayments was already available in late 2011, and thus the banking system was able to take this into account during its customary end-of-the year balance sheet management. This is also likely to have played a role in the phenomenon that, subsequent to the significant acceleration, the outflow of funds from banks slowed down in early 2012.

Chart 7
Allocation of banks' external funds to net lending and liquid assets

(cumulated transactions)



The national economy

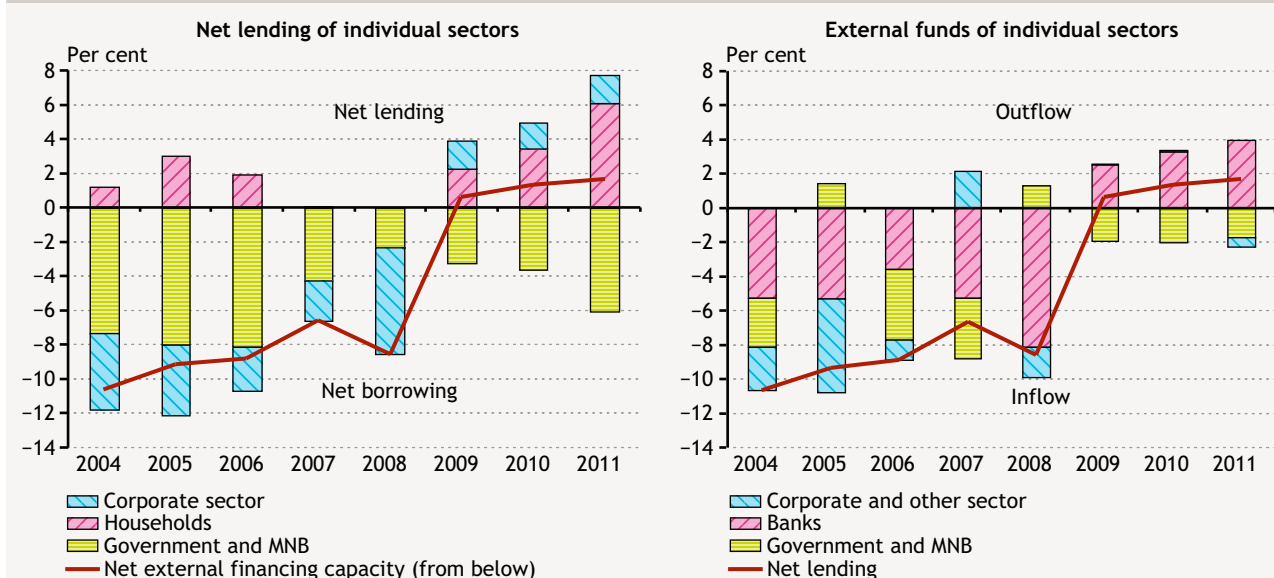
Concurrently with trends in the net lending position of the Hungarian economy, an outflow of external funds also commenced, but this was not the case in each sector (Chart 8). Continued placement of deposits by households and the corporate sector as well as loan repayments in

⁸ Securing foreign currency financing was in the vested interest of the banking system, because such helped control the B/S FX position, where the gap brought about by foreign currency lending to the domestic sectors started to widen.

Chart 8

Net lending of the individual sectors and the outflow of external funds

(as a proportion of GDP)



response to the crisis contributed significantly to a sharp rise in the private sector's net savings, enabling the banking system to increasingly downsize its external financing. By contrast, the net lending position of the corporate sector that had evolved did not entail a reduction in its direct external liabilities. As for the consolidated general government, the past few years have seen a rise in its borrowing demand and simultaneously, external borrowing has continued.

EXPECTED EXTERNAL BORROWING BY THE INDIVIDUAL SECTORS

Based on the forecasts presented in the *Inflation Report*, Hungary's net lending will continue to increase in the future (see the section on the financing capacity of the individual sectors). At the same time, the outflow of foreign funds may become more intense. In the following, we examine the likely changes in the external funds of the individual sectors over a time horizon until the end of 2013. In so doing, we continue to rely strongly on the forecasts presented in the *Inflation Report*.

In order to avoid any confusion, it should be noted that we had to rely on a number of assumptions in connection with the behaviour of the individual sectors when formulating our expectations for the future.

- The most important is that – similar to the past few years – we expect that the Government Debt Management Agency (GDMA) will issue foreign currency bonds to

finance its expiring foreign currency loans and that, in line with the adopted practice, it will have foreign currencies converted into forints at the MNB.

- We also assume that the funds available to domestic banks will increase, with the amount of deposits from the private sector and that of loan repayments added to them.
- Finally, as regards the behaviour of banks, we rely on the historical wisdom that growth in the MNB bill portfolio will be absorbed mainly by domestic banks.

In light of the above, let us look at the changes that may occur in the dynamics of the external funds of the individual sectors.

In the context of net repayments by companies of the loans provided by domestic banks, we also expect a reduction in the external funds available to companies.

Financial savings of the corporate sector are expected to rise further in the years to come in response to the launch of auto industry manufacturing, EU transfers and persistently subdued investment. Consistent improvement in the financial position of the sector is likely to materialise indirectly through the banking system (mostly through the repayment of loans, and in part through new placements of deposits) and directly in the processes of external finances. The latter may mean both foreign bank loans and the outflow of FDI liabilities, which became stuck at a certain level earlier (e.g. a marked reduction in intercompany loans).

Continued balance sheet adjustment by the banking system is also likely to still play an important role in the reduction in external funding. The expected rise in the MNB bill portfolio may reduce banks' net withdrawal of funds. The private sector's still sizeable net saving position means continued loan repayments and the placements of new deposits, which opens up another window of opportunity for a reduction in banks' net external funds. In addition to the savings of the private sector, banks' position vis-à-vis the central bank may also influence trends in banks' external funds. As mentioned above, along with a rise in FX reserves, there was a rise in the MNB bill portfolio (Chart 4), with the bills purchased mainly by banks. Thanks to the expected significant rise in EU transfers, central bank FX reserves may start rising again in the years to come (if the government takes on new foreign currency loans equal to those that mature). Simultaneously, banks' liquidity surplus is also likely to rise, which the banking system will have to finance. Banks' excess liquidity will go, in part, into the purchase of MNB bills and the repayment of external funds. While developments in the position of banks vis-à-vis the private sector could make a larger reduction in external funds possible, the expected rise in the MNB bill portfolio may put a brake on the outflow of banks' funds. All in all, compared to the past a smaller outflow of bank funds is expected to materialise by the end of 2013.

Along with moderation in the general government borrowing requirement, external borrowing by the state may also decline; by contrast, due to a rise in FX reserves, a net outflow of funds is likely to materialise at the level of general government consolidated with the MNB. Over the past few years, the volume of issuance of foreign currency bonds by the GDMA has been identical to the volume of maturing foreign currency debt; accordingly, we continue to assume that the government's net foreign currency borrowing will not entail net external borrowing. Simultaneously, domestic agents may play a greater role in financing the fiscal deficit, which is expected to be considerably lower than in 2011; in the first half of 2012, households and banks purchased Hungarian government securities in the amount of HUF 140 billion and HUF 240 billion, respectively. Overall, external borrowing by general government excluding the MNB may be lower this and next year than in 2011. Concurrently, the MNB's FX reserves may rise, which entails an outflow of funds. Taking the MNB's position vis-à-vis the rest of the world into account, we

expect a net outflow of funds at the level of consolidated general government in the years to come, a development completely opposite to the inflow of funds that characterised the pre-crisis and the crisis years.

In addition to the baseline scenario outlined above, we wish to present two other scenarios in which the share of the individual sectors in the outflow of funds changes. *In one of the possible scenarios*, banks' holdings of MNB bills increase at a lower rate than in our assumption, which may be attributed to a number of factors: either banks are unwilling to hold liquid assets in such an amount or parent banks need the funds generated by their Hungarian subsidiary banks to a larger extent.⁹ In either case, the outflow of banks' funds may be faster than what would follow from our assumption. An unusually rapid outflow of funds may also entail a rise in yields on government securities and a weaker forint, which, in turn, may result in changes in macroeconomic financial savings and the financial savings of the individual sectors. Based on historical wisdom, we think that lack of demand experienced by banks may be counterbalanced by the purchase of government securities and MNB bills by the rest of the world, which is also likely to be related to a shift in price-type variables. All in all, an increase in the government's external borrowing may counteract higher outflow of banks' funds. *In another possible scenario*, companies do not reduce their external liabilities despite the increase in their financial savings. In this case, liquidity arising from the saving position of the companies will flow into the banking system in the form of loan repayment or stronger placement of deposits. Banks will use these additional funds to reduce further their foreign debts, i.e. a lower outflow of corporate funds may be counterbalanced by a stronger outflow of banks' funds.

DEVELOPMENTS IN EXTERNAL DEBT

The sum of borrowing by the individual sectors (i.e. external financing capacity) determines the way in which a country's external debt changes. There are two types of external debt: debt liabilities (e.g. loans borrowed abroad and foreign currency bonds issued) and non-debt liabilities (e.g. direct investment and equity liabilities). Analyses focus mainly on external debt, as it carries roll-over risks, while equity-type external liabilities pose less risk to Hungary.

⁹ If the government can only issue foreign currency bonds in an amount that is smaller than that of the maturing bonds, this would also result in a smaller portfolio of MNB bills held by banks. In such a situation, the government should increase the issuance of HUF. If the total amount of such additional securities were purchased by the banking system, then there would be no departure from the baseline scenario in respect of external borrowing. If, however, part of the securities were purchased by the rest of the world, then, *ceteris paribus*, banks' external borrowing could be lower relative to the baseline scenario.

Net external debt, which rose significantly before the crisis, has decreased only moderately, despite the significantly stronger net lending position. Hungary's net external debt started to rise sharply after 2004 and had exceeded 50 per cent of GDP by 2008. Such a marked rise was attributable to banks' external borrowing concurrently with a take-off in foreign currency lending and external borrowing by the corporate sector (Chart 9). Nevertheless, despite the economy's net lending position, net external debt did not decrease before 2011, which was due to a rise in the forint-denominated amount of external debt in response to the weakening of the forint. In 2011, however, despite further depreciation of the forint, GDP-proportionate net external debt fell tangibly, because the outflow of debt financing was particularly large.

A consistently high external surplus means that, unless the exchange rate changes, debt indicators key to Hungary's external vulnerability will decline further. Hungary's external surplus approximates 8 per cent of GDP for 2012 and 2013 taken together. Thus, we expect an outflow of net external funds (debt and non-debt liabilities) of a similar size to occur in the next two years, i.e. the net external liabilities of the economy (debt and non-debt liabilities) is likely to decline to a similar extent. The likely underlying reasons for the outflow of funds are, to a lesser degree, a reduction in the FDI liabilities of companies and, to a larger degree, the net repayment of debt financing of the domestic sectors (companies, banks and the state). As regards the structure of financing, we expect a moderate inflow of non-debt financing in 2012, which may turn into an outflow in 2013. The underlying reason for this is that net savings of the corporate sector increase markedly, which may go hand in hand with a significant fall in intercompany loans. Thus, a reduction in external liabilities may materialise mainly through reduction in net external debt.

As an outcome of the improved external balance and along with the appreciation of the forint since in late 2011 and an increase in nominal GDP, Hungary's GDP-proportionate net external debt is likely to drop from 50 per cent as at end-2011 to below 40 per cent by end of 2013. Both net repayments of foreign loans (a gross reduction in debt) and an expected rise in foreign currency reserves (a gross increase in foreign assets) will contribute to a reduction in net external debt. The increase in FX reserves is due to EU transfers and the expected issuance of foreign currency bonds. By June, the appreciation of the forint early this year had led to an approximately 5 percentage point decline in the net external debt rate. Next year, unless the exchange rate of the forint changes, the reduction in net external debt indicators will depend

Chart 9
Developments in net external debt



mostly on the outflow of funds, which the impact from an increase in nominal GDP may accelerate slightly.

Despite net lending and more moderate debt indicators, the Hungarian economy is likely to remain financially vulnerable, because the gross borrowing requirement will remain significant, due to the economy's high indebtedness. Although the balance-of-payments surplus, the net saving position of the Hungarian economy and indicators of external debt, which have been decreasing consistently albeit slowly, mitigate the riskiness of Hungarian assets, gross data underlying the net figures should not be neglected, as net lending reduces Hungary's gross borrowing only to a limited extent. As regards short-term funds, economic agents have to roll over funds in an amount of around EUR 30 billion each year, the execution of which will likely continue to pose risks.

SUMMARY

Prior to the crisis, Hungary borrowed heavily as a combined result of investment and consumption exceeding the incomes of domestic agents and lax fiscal policy. In response to the crisis, the net savings of the domestic sectors rose substantially, while the borrowing possibilities for banks and companies were fewer, which ultimately led to an outflow of funds. Our analysis reveals that not all the sectors strive to repay external debt: in the context of a significant outflow of funds from the banking system, there was no material change in the external funds held by companies, whereas by contrast, the general government sector continues to borrow. Our forecast reveals that changes in the outflow of funds from the individual sectors are likely to occur in the years to come. The underlying reasons for this are that there may be some slowdown in the reduction of banks' external

funds in response to the expected increase in holdings of MNB bills and that an outflow of funds may materialise at the level of consolidated general government as well. Its extent depends heavily on the possibilities available to banks for withdrawing funds and on their intention to do so.

If parent banks decide to withdraw further funds or FX reserves grow only modestly, the government is likely to borrow further. Concurrently with the possible outflow of a larger volume of funds, Hungary's net external debt may fall faster than it used to.