

# Ádám Martonosi: Factors underlying low investment in Hungary\*

*Since the onset of the economic crisis, an unprecedented downturn in investment in the national economy has occurred in the past four years. This marked decline has been registered in all sectors of the economy, albeit to differing degrees. Investment is a key aspect of convergence for the Hungarian economy as the renewal and expansion of the capital stock determines the magnitude of production capacities, and through that, economic output. The lack of investment by the government sector and households mainly reduces gross domestic product in the short term, while the decline in corporate investment not only directly reduces aggregate demand, it also has a negative impact on Hungary's potential growth in the medium and long term.*

*Our analysis examines the development of investment in a regional comparison, in a breakdown by sectors, starting from the pre-crisis years and primarily focusing on the period of the crisis.*

*In a regional comparison, investment trends in Hungary were already moving in the wrong direction before the crisis, with the investment ratio gradually declining as a percentage of GDP. The adjustment of 2006 considerably reduced government expenditures, and simultaneously the less favourable demand conditions resulted in a general drop in corporate investment. As a combined result of the above, at the onset of the crisis Hungary had the lowest investment rate in the region. After 2008, the combination of the major economic slowdown, the persistently weaker demand prospects, the substantial balance sheet adjustment requirement for the public and private sectors alike and the marked downturn in the lending activity of banks caused a substantial decline in investment. In Hungary, the decrease in accumulation by households has been significant in international comparison, while the government's investment ratio has remained stable in recent years, mostly as a result of the accelerated use of EU funds. The drop in corporate investment proved to be substantial primarily in sectors producing for the domestic market and in the service sectors, while investment by companies producing for exports was boosted considerably by large projects in the manufacturing industry. As a result, the investment situation is more favourable in this segment.*

## INTRODUCTION

Whole-economy investment is of outstanding importance for several reasons. On the one hand, 20 to 25 per cent of aggregate demand is generated by investment projects in the region, and thus they make a significant contribution to GDP in the short term. On the other hand, investment allows the domestic capital stock to expand and renew. The potential growth of the economy is determined by the combination of the available labour force, the volume of physical capital<sup>1</sup> and the efficiency of their combined use. Consequently, on the supply side of the economy, investment is the basis of growth mainly in the medium and long term.

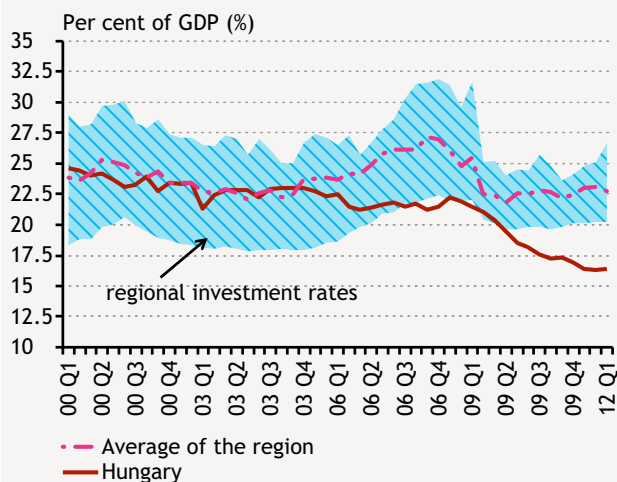
This is why it is important to understand the processes underlying the investment activity of recent years, the channels through which the crisis exerted its adverse effects, the factors that have determined and will continue to determine the investment-related decisions of economic agents and the probable duration of this negative trend.

The dynamic investment growth seen in Hungary in the 2000s came to a halt by the middle of the past decade (Chart 1). In the two years following the 2006 fiscal consolidation, the decelerating economic growth was supported only by the subdued growth in investment. After the outbreak of the global economic crisis, however,

\* 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.

<sup>1</sup> The level of the capital stock is affected not only by investment but also by depreciation. In this paper, we focus on understanding the investment processes.

**Chart 1**  
Investment rates in a regional comparison



Source: Eurostat.

investment in the national economy plummeted to depths unseen since 1995: from 2009 Q1 we witnessed a marked decline across the board, in every segment of the economy. The rate of decline in Hungary has been dramatic in international comparison as well, and we are in a worse position than our neighbours in the region.

In this paper, we investigate how investment activity changed before and during the crisis in a regional comparison, primarily based on an analysis of the countries of the region. First, we identify the channels important for investment through which the crisis hit the various sectors and economic agents, and subsequently we present where and to what extent the process of adjustment caused persistent, trend-like decline or only a temporary, cyclical downturn.

## INVESTMENT DURING THE CRISIS

In period of recession, investment generally shows a pro-cyclical behaviour:<sup>2</sup> the decline in aggregate demand moves in parallel with a substantial decrease in capital formation. In addition to the cyclical decline typical of recessionary periods, long-term factors may result in a decline in underlying investment developments. The persistent deterioration in the growth outlook may foreshadow a more marked adjustment than previously seen.

The cyclical downturn is first noticeable in a contraction in aggregate demand and deterioration in the income position

of households. Against the backdrop of increasing unemployment and declining real wages, households first cut back on their investment while they try to smooth their consumption using their savings. If the recession is also coupled with a major downswing in the housing market, the decrease in housing prices points to a decline in households' investment activity, partly through the fall in the value of the collateral that can be used for credit and partly through the decline in bank portfolio quality and thus through a tightening in mortgage lending as well.

In the case of corporations, the contraction in global demand is first reflected in deteriorating corporate profits, which businesses offset by reducing production and inventories. Weaker output is coupled with a drop in inputs used for production, including moderation of wages and a decline in the workforce on the human capital side, and a reduction in the utilisation of production capacities on the productive capital side. In the event of a temporary, cyclical economic decline, enterprises do not tend to cut back on their capital stock, with the exception of firms which were already in a poor profitability position before the crisis. On the other hand, investment is reduced as lower capacity utilisation means less depreciation and thus lower additional investment requirement and consequently capacity expansions may also be postponed.

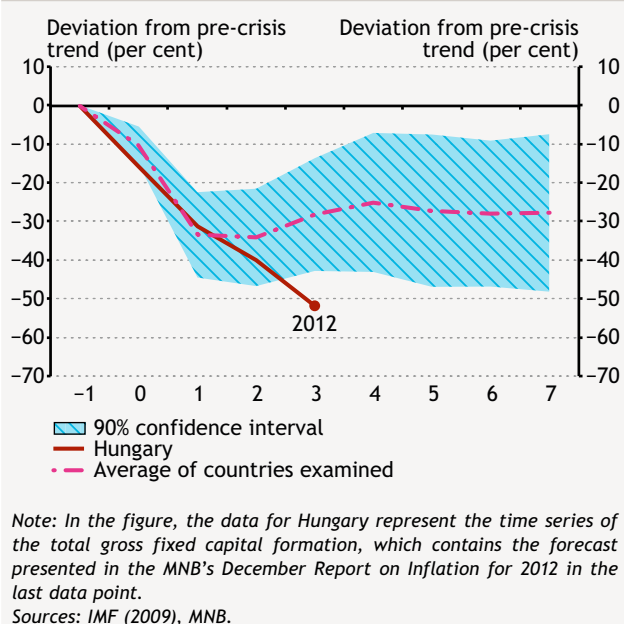
In the event of a cyclical economic downturn, fiscal investment may be influenced by different considerations. In countries that pursued disciplined fiscal policies prior to the crisis there is more room for manoeuvre to pursue a looser fiscal policy. Budget measures may partially offset weakening private sector demand by stimulating aggregate demand. We have seen examples among countries with more favourable initial debt stock, for instance the car scrapping programme in Germany, and in our region, government investment has increased as a percentage of GDP since 2008 in Slovakia and in Poland<sup>3</sup> as well. During the crisis, many countries were unable to take this route because the level of public debt proved to be an integral part of the problem, and thus the fiscal authorities themselves were forced to implement fiscal consolidation measures including cutbacks in government investment projects.

Based on the experience of the IMF with financial crises (Chart 2), investment falls for two years after the onset of the crisis, and then – following stabilisation – it grows at rates similar to the pre-crisis period. Looking at the

<sup>2</sup> In the case of the region and converging countries, this is coupled with significant volatility (Benczúr and Rátvai, 2005).

<sup>3</sup> In the case of Poland, investment growth was driven by infrastructure projects for the European Football Championship in 2012.

**Chart 2**  
**Investment during financial crises**  
 (Hungarian investment is shown for 2008–2012)



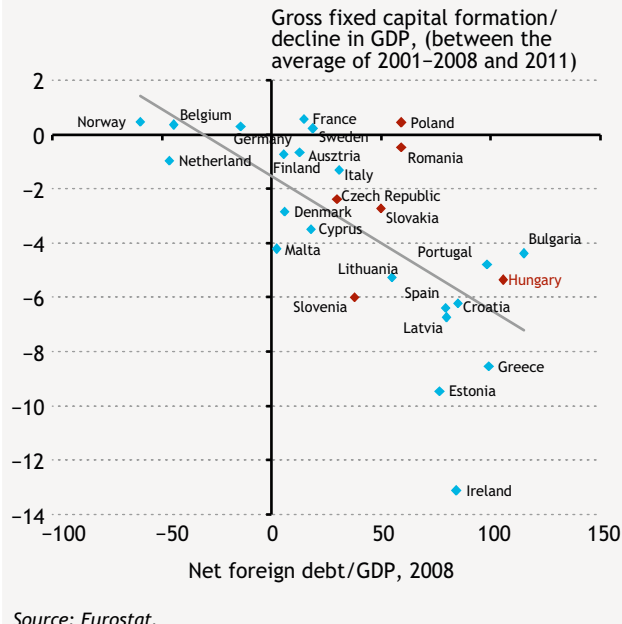
Hungarian data, two important differences can be observed: first, in the case of domestic investment the deviation from the pre-crisis trend is greater than what is experienced internationally; second, no turning point is seen in the domestic data for the time being.

In many European countries, the excessive indebtedness of the government and/or the private sector proved to be one of the main causes of the problems, which may suggest not only a cyclical downturn in investment but may foreshadow a trend-like decline in investment due to the protracted balance sheet adjustment of the various actors. In the following, we present the causes that may suggest a persistent downturn in investment.

The overspending of prior years/decades led to high public or private debt in a number of countries, and fears concerning their repayment mounted gradually after 2008. Faster adjustment was observed in the countries where the debt-to-GDP ratio was higher, and thus the decline in investment was more significant (Chart 3).

The general weakening of confidence rendered the refinancing of existing debt more expensive if not impossible for the states, while the strengthening coordination within the European Union imposed much more severe requirements for the consolidation of public finances. The European Central Bank attempted to remedy the financing problems of distressed countries by various means, and several countries are still using these facilities. Nevertheless,

**Chart 3**  
**Relationship of debt and investment in international comparison**



seriously indebted countries face higher financing costs than prior to the crisis. Against that backdrop, the countries that implemented fiscal consolidation became part of the investment problem themselves, as the persistent decline in the level of government investment may reduce the investment rate in the long term.

The level of household indebtedness has played a similarly important role in the investment activity of recent years. Mortgage loans, which were available at low interest rates before the crisis, resulted in a rapid growth in housing investment in a number of European countries and contributed to the development of a real estate market bubble in several cases (Spain, Ireland). In most countries, the tightening of credit conditions, the deterioration in the income position and the bursting of the housing price bubble resulted in a substantial drop in the output of the construction industry, and investment shrank to a fraction of their previous levels. Although no real estate market bubble developed in Hungary, a rapid increase in households' mortgage-backed indebtedness mostly denominated in foreign currency was typical here as well. The balance sheet adjustment of households due to the accumulated debts has been ongoing in these countries since the onset of the crisis, but its rate is slow and – compared to the rate seen in the pre-crisis period – it will result in a lower investment rate in the long term.

The magnitude of indebtedness represented a less significant problem in the corporate sector: compared to the other

two sectors, the balance sheet adjustment requirement was lower in connection with the reduction of debts. Accordingly, cyclical channels may have limited corporate investment activity more strongly here.

Alongside with and in close relationship to the debt, another important consideration is the issue of financing. Investment is typically implemented with a high proportion of credit, but the negative impacts of the crisis on the financial system made it difficult if not impossible to obtain funding, and funding costs rose significantly. The lending capacity of banks and other credit institutions weakened as the losses suffered on their loan portfolios and the negative revaluation of the remaining portfolio significantly worsened the balance sheets of banks. The contraction of funding sources and banks' declining risk tolerance still represent severe constraints to private sector entities, which therefore cut back on their investment. Governments find it easier to obtain financing than private sector entities. Most countries are still able to raise funding in the government bond markets, albeit at elevated interest rates, and where this becomes temporarily or permanently impossible, the credit facilities of international organisations offer a solution. In Europe, the EU's development funds may present additional sources of financing for converging countries including Hungary. Most of these funds are provided to the various countries for investment purposes, and they can mitigate the financing difficulties of the public and private sectors alike, due to their low own funding requirement. On the whole, however, the lending capacity of the financial system has weakened compared to the pre-crisis era, which may persistently reduce investment activity in both the corporate and household sectors.

The third element of the stubborn investment problem is the issue of forward-looking expectations relating to the economic situation. In Europe, the public and private sectors struggling to reduce the debt are only able to stimulate the supply side of the economy at a very slow pace, which in turn elevates the financing constraints in place on the side of the financial system. Furthermore, the profitability of businesses is undermined by the corporate tax burdens increased in the course of crisis management, while the frequent changes in the regulatory environment reduce predictability and risk tolerance. In combination, these factors create an uncertain business environment for the corporate sector, which may lead to a permanent backlog in investment by companies producing for the domestic market or providing services. Enterprises producing for exports are in a better position, as other actors in the global economy, particularly Asia, have generated significant demand even during the crisis, but risks relating to a global slowdown point to more restrained

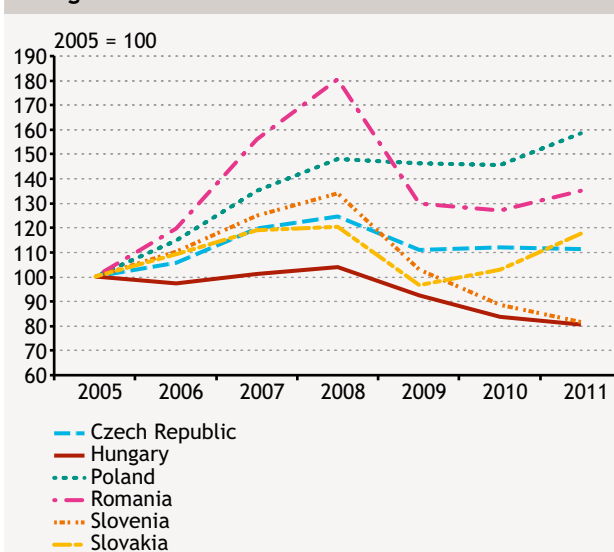
investment activity in the case of exporting companies as well, and other risks (funding, taxation, regulatory changes) also affect enterprises producing for external markets.

## INVESTMENT TRENDS IN HUNGARY AND THE REGION

The level of economic development of Hungary and other countries in the region is below the EU average. The lower per capita capital stock and lower average wage level typical in converging countries promise a higher return to investors, and thus the capital stock may grow faster than in developed countries. However, the outbreak of the economic crisis reduced the speed of convergence, and the investment rate declined considerably in all countries of the region. In the following, we attempt to identify the differences and similarities in the investment trends of Hungary and its regional peers.

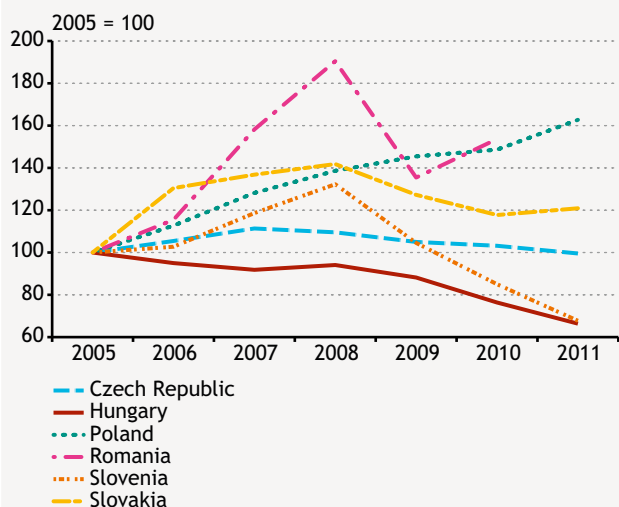
In international comparison, the investment-to-GDP ratio can be used to compare the proportion of gross domestic product each country uses to renew or expand its capital stock. Of the countries in the region, only Poland and Romania had lower investment ratios in the first half of the 2000s than Hungary. However, in the pre-crisis years Hungary was already below the regional average, and at the onset of the crisis the difference was 4-5 percentage points compared to its better positioned regional neighbours (Chart 1). We should note that prior to the crisis the fiscal consolidation of 2006 in itself reduced the Hungarian investment rate by one percentage point and in the subsequent two years we only saw stagnation, while

**Chart 4**  
Changes in investment



Source: Eurostat, national statistical offices.

**Chart 5**  
Building-type investment



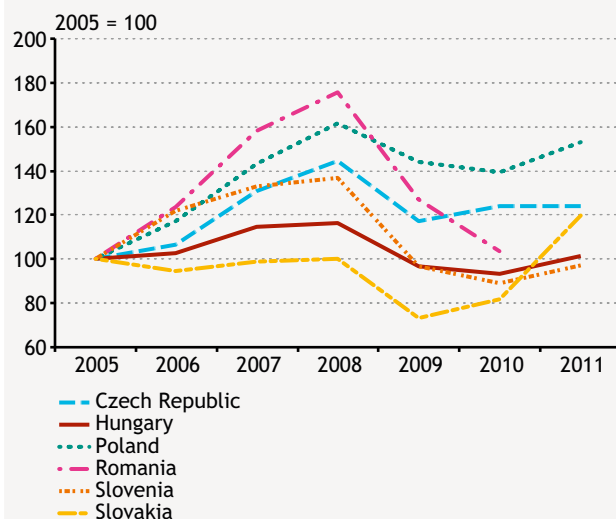
Source: Eurostat, national statistical offices.

investment expenditure as a percentage of GDP continued to increase in almost every neighbouring country until 2008. Investment plummeted everywhere in 2009. In the period since 2010, the investment rate has stagnated or increased in the majority of the countries of the region, while compared to 2005, investment activity in Hungary in 2011 was some 20 per cent lower, which is the lowest figure in the region, together with Slovenia.

In its own right, the investment rate being lower than that of our neighbours in the region for an extended period of time may indicate a persistent investment problem; the question is which economic segment is responsible for this deficiency. Looking at the breakdown of investment by material-technical content,<sup>4</sup> a strong duality is seen, which may indicate differences in behaviour across the various sectors of the economy (government, households, businesses).

The growth of building investment has been very heterogeneous in the region since the onset of the crisis (Chart 5). Hungary's performance is among the poorest, a similar decline is found only in Slovenia, where this process happened faster and more drastically in recent years. In the case of machinery investment, after the decline of 2009, signs of slow stabilisation are seen in Hungary, the Czech Republic, Poland and Slovenia, while Slovakia expanded its capacities dynamically. Machinery investment in Hungary is at its 2005 level. All of this indicates that the investment

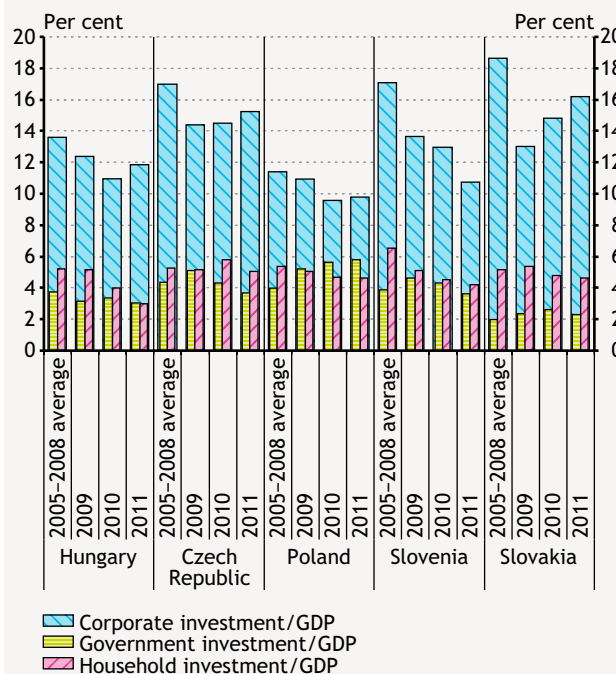
**Chart 6**  
Machinery-type investment



Source: Eurostat, national statistical offices.

performance of Hungarian companies was already lower before the crisis, whereas during the crisis the dynamics observed in terms of corporate investment did not deviate from the regional average.

**Chart 7**  
Sectoral investment trends in regional comparison



Source: Eurostat, national statistical offices.

<sup>4</sup> Two large groups of investment are building-type and machinery-type investment, covering 95–98 per cent of investment activity as a whole. In terms of sectors, the government and households tend to implement mostly building-type investment while the capital expenditures of businesses are mostly in machinery and equipment.

Moving on to the detailed analysis of the various sectors, the Czech Republic and Slovenia led the way in government expenditure reductions following the outbreak of the crisis, with the ratio of government investment falling by one-fifth as a percentage of GDP. The rate of government expenditures did not change materially in Hungary and Romania; it should be noted, however, that Hungary had already implemented a fiscal consolidation round between 2006 and 2008, whereby investment expenditures fell by one-third as a percentage of GDP. By contrast, Poland and Slovakia increased their government investment to GDP ratio significantly despite the crisis, expanding their expenditures by one-fifth in three years on average.

In Hungary, the government sector is responsible for 15–20 per cent of whole-economy investment. Government-related investment covers a broad range: in addition to

direct public involvement (central agencies, local governments, state-owned enterprises), investment involving the public sector is also present in the business sector (public utilities, quasi-fiscal institutions, PPP projects, EU projects). In general, the largest share of capital formation of the government consists of infrastructure projects, which had been a major addition to investment in Hungary before the crisis. In the course of the fiscal consolidation of 2006, the investment rate of the government declined significantly, mostly due to the lack of the previously significant infrastructure projects. During the crisis, expenditure cuts meant reducing investment in all areas of the government sector; still, the government investment rate as a percentage of GDP did not decrease as compared to the pre-crisis level. This was mainly attributable to the significant inflows of EU development funding.

### Role of EU funds in investment in Hungary

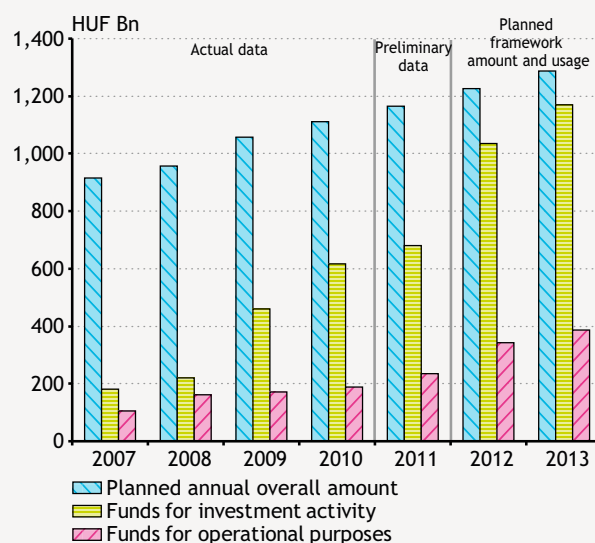
Hungary receives funding from the EU in several forms. In terms of investment, the most important ones are the funds present in the budget; of these, the amounts coming from the Structural Funds and the Cohesion Fund, and the amounts for rural development are the most substantial.

In the 2004–2006 period, the funding available to Hungary was considerably smaller, but in the 2007–2013 period the annual financial allocations increased. The available figures indicate that in 2007–2008 only one quarter of the funds available were utilised, while this ratio rose to one half of the annual financial allocation in 2009, in 2010–2011 it was close to the total allocation available for the year, and this year it is expected to exceed that amount. It should be noted that the financial allocation for the current year is not lost if it is not utilised in the given year; EU rules allow for the use of funding across years.

The role of EU funds in the real economy is particularly important in the case of whole-economy investment as the magnitude of the available financial allocations may amount to 10–15 per cent of the investment volume in the given year. It should be noted that not all inflows of funds to Hungary can be used for gross capital formation; only those items can be taken into account that are not used towards operation of the institutional system or for various HR projects.

The use of EU funds is not restricted to the government sector in the narrow sense, as they can be applied for by every sector of the economy. In terms of investment, funds can primarily be applied for financing infrastructure projects and for enterprise development. They are of outstanding importance in government investment as the fiscal consolidation has diverted the government's investment activity towards projects that can be implemented with EU funding; thus the government's investment rate has not declined in recent years, despite the gradually shrinking own funds provided by the government.

**Chart 8**  
Proposed and actual use of EU funds



Source: NGM

Household investment declined significantly mainly in Hungary and Slovenia. Between 2008 and 2011, the investment rate of households as a percentage of GDP dropped by 35–40 per cent. By contrast, in Slovakia and Poland there was a slight decline of 10–15 per cent in this three-year period, while in the Czech Republic and Romania household investment did not decline to any appreciable extent.

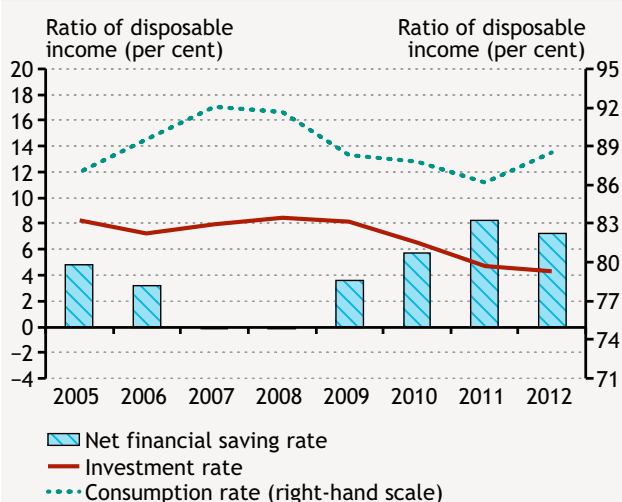
In Hungary, capital formation of households represents 20–25 per cent of total investment, with the overwhelming majority<sup>5</sup> of this relating to the real estate market (purchase of new home, renovation of old property). Proportionally, household investment showed the steepest decline during the crisis: in the case of the housing market, the number of new homes completed per year shrank to one third by 2011, the lowest level since the political transition. The drastic decline in demand entailed a persistent drop in housing prices.

The decline is attributable to several causes. On the one hand, dynamic growth started in the Hungarian housing market early in the 2000s, initially driven by the government-subsidised forint denominated housing loan programme and later by the explosive growth in foreign currency lending. After the onset of the crisis, the exchange rate of the forint weakened considerably and the foreign currency denominated housing loan stock placed a severe additional burden on households. With an increase in repayment

burdens, a further deterioration took place in the income position of households. In parallel with the setback in aggregate demand, businesses reduced their costs through wage cuts and layoffs, and thus unemployment grew and the real income of households decreased. As a first step, households reacted to the recession environment by a rapid reduction in consumption. Subsequently, after 2009, their consumption rate stabilised, and even increased slightly. However, a sustained decline has been observed in the investment rate. As a proportion of disposable income, the investment rate halved during the crisis years, and thus the postponement of investment has become one of the most important channels of adjustment for Hungarian households. In addition to the blanket ban on foreign currency lending, forint lending was also suppressed, which also led to a drop in home purchases (Chart 10).

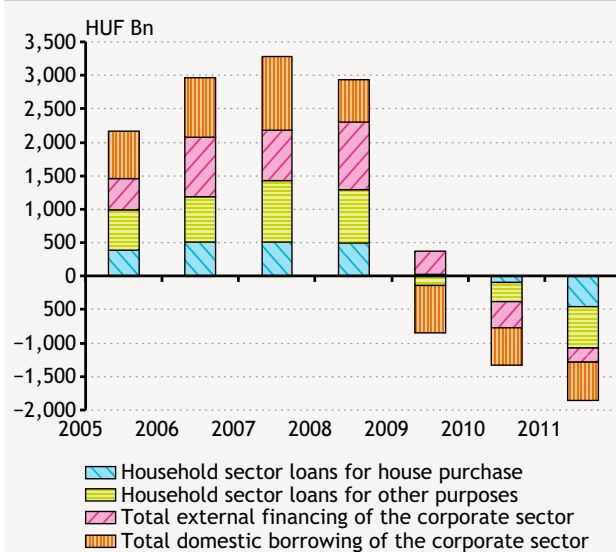
Corporate investment constitutes some 55–70 per cent of total investment in the countries of the region; consequently, this was the sector that typically suffered the greatest setback. The situation appears to be worst in Romania and Slovenia, where corporate investment continued to decline in 2011, while in other countries including Hungary the corporate investment rate improved to some extent last year, but it has not reached the pre-crisis levels in any country as yet. While the decline in government and household investment typically reflects weaker longer-term underlying trends in the region, in the case of businesses a minor decline was observed, which was partly attributable to the favourable investment performance of exporting

**Chart 9**  
Households' investment, consumption and net financial savings rates



Note: The surge in the net financial savings rate and the decline in the consumption rate in 2011 are explained by the disbursement of the private pension fund real yields.  
Sources: MNB and CSO.

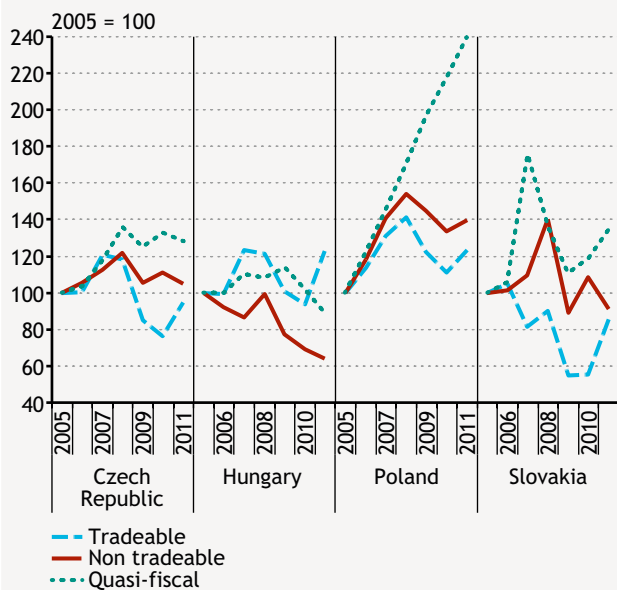
**Chart 10**  
Net borrowing of households and businesses



Forrás: MNB.

<sup>5</sup> Machinery investment of agricultural sole proprietors is also classified in the household sector and it represents 25 per cent of investment activity.

**Chart 11**  
Corporate investment in the region by industry



Source: Eurostat.

foreign companies that moved to the region before or during the crisis. Breaking down corporate investment to industries, different trends emerge in industries producing primarily for exports (manufacturing, agriculture), producing mostly for the domestic markets and service industries (e.g. trade, catering, communication, financial services) and quasi-fiscal<sup>6</sup> corporations.

The investment activity of exporting companies has been improving in every country, which is explained primarily by the high export demand from Asia and the new manufacturing capacities moving into the region. In the case of the group producing or providing services for the domestic market, corporate accumulation fell considerably, in line with weak domestic demand. Considering that demand prospects have been extremely uncertain for quite a long time, we continue to expect poor investment performance from this group of businesses. For quasi-fiscal sectors that are partly commercial but also contain a significant government element, regional trends reveal a mixed picture. In general, compared to the outbreak of the crisis, a slight decline is observed in Slovakia and the Czech Republic, whereas in the case of Poland the figures reflect the infrastructure projects for the European football championship of 2012. By contrast, the downturn was more significant in Hungary.

Investment by quasi-fiscal corporations is strongly linked to EU funds, which explains their more moderate decline.

A detailed examination of Hungarian trends shows that 55-60 per cent of total investment comes from corporate investment, approximately two-thirds of which is used for the purchase of machinery and equipment, with only one third relating to buildings and other structures. After the onset of the crisis, investment declined substantially both in industries producing for the domestic market or providing services, and in exporting industries. Negative expectations relating to poor demand are shown by the fact that in the manufacturing industry, which accounts for some half of corporate investment, there was 15 per cent less investment in 2009 than in the previous year. In addition to the contraction of aggregate demand, the sharp drop in corporate lending (Chart 10) and the more expensive purchase of imported machinery due to the weakening of the exchange rate also hindered corporate investment. The special taxes imposed due to the fiscal consolidation further reduced the profitability of certain sectors (trade, financial sector, energy, telecommunication) and thus also their willingness to invest.

The decline in corporate investment may be partly explained by the substantial excess capacity in producing sectors. In the case of industries producing mostly for the domestic market, capacity utilisation has been on a downward trend since 2006, and it has departed even more from the capacity utilisation indicators typical for exporters.

Despite the generally unfavourable investment climate, some positive signs were seen in the exporting sectors even during the crisis. In recent years, several large investment projects were started in Hungary and as it was noted earlier,<sup>7</sup> the appearance of a major foreign-owned manufacturing company in itself can improve the investment scene considerably. The favourable effects of investment by foreign companies in the machinery and transport equipment industries (Audi, Mercedes, Opel, Hankook) appeared in the second half of 2010 and remained substantial until the end of 2012. However, it should be noted that despite these large individual projects, underlying trends continue to be weak in the manufacturing industry. The investment activity of manufacturing sectors producing for the domestic market has fallen by one quarter from its 2005 level.

<sup>6</sup> The problem with industry classification is that even a detailed breakdown will contain both government-induced and purely commercial investment, e.g. motorway construction, railway renovation, energy projects. To address investment outside the government sectors in the narrow sense, we prepared our own classification for industry groups where the quasi-fiscal industry group contains the energy sector, water management, transportation and several minor service industries.

<sup>7</sup> In 2007, the tyre manufacturing plant of the South Korean Hankook substantially improved the growth rate of manufacturing industry investment.



In a regional comparison, the picture is quite favourable for exporting industries, thanks to large capital projects, while Hungary registered the steepest drop in the region in other industries. Industries producing for the domestic market or providing services invested almost 40 per cent less than in 2005, which is partly attributable to weak domestic demand and the poor economic outlook, though it should be noted that the special levies imposed on certain sectors (trade, communication, financial services) may also have contributed to the weak investment activity.

Economic agents' expectations play an important role in developments in corporate investment. In the regional competition for investment, the assessment of the competitiveness of the given economy is important. The indicators of various rankings of the business environment evaluate individual countries on the basis of a number of criteria (economic growth, due process of law, taxation, administrative burdens, labour quality, etc.).

Based on the Growth and Competitiveness Index of the World Economic Forum of Davos, Hungary is in the middle group within the region. The index takes into account a number of variables; competitiveness does not depend exclusively on the business environment. Hungary's relative position within the region was at its worst in 2008, improving slightly by 2012. Of the sub-indices relevant for the business environment, the assessment of the macroeconomic environment improved significantly between 2006 and 2012, while in the case of the sub-indices for public and private institutions, education, the labour market and technology, the position of the country deteriorated markedly both in regional and global comparison.

Another international survey, the World Bank's 'Doing Business in', focuses mostly on the business environment and the underlying institutional conditions such as: starting a business, protection, administrative cost of and tax payment by investors, or due process of law. In 2006, Hungary was second among the six countries under review. According to the most recent ranking, Hungary is the last in the region at present, and the country's assessment is particularly unfavourable in the case of the sub-indices that compare the protection of investors and tax payment. Although in the case of some of the components under review the assessment of the country has improved, its relative assessment in the case of several criteria relevant in terms of investment has deteriorated, which carries downside risks to new investment.

## CONCLUSIONS

In a regional comparison, Hungary's position is weak in terms of investment. The investment rate was among the lowest in the region at the onset of the crisis and has remained so ever since. Most of this shortfall already existed in the pre-crisis period, and it has increased somewhat since the outbreak of the crisis. In the pre-crisis years, the decline in the investment rate was mostly caused by the decline in government and corporate investment. The adjustment in 2006 resulted in a major fall in the government investment rate, which was stabilised by an increased inflow of EU funds following the crisis. Although in terms of dynamics, developments in domestic corporate investment have been similar to the regional average since the crisis, regarding corporate investment as a proportion of GDP, Hungarian enterprises continue to spend 3-5 percentage points less on accumulation than Hungary's neighbours in the region. Persistently lower corporate investment may present a lasting investment problem; the shortfall is most obvious in the case of the sectors producing and providing services for the domestic market, while in the case of exporting companies investment activity was maintained by the large investment projects of recent years. Apart from this significant individual item, underlying developments are weak in this segment as well. Although prior to the crisis there were no signs of evolution of a housing market bubble in the domestic housing market, Hungary has seen household investment decline the most in recent years. The restraining of investment expenditures has become one of the most important channels of households' balance sheet adjustment. Considering that due to the significant revaluation of foreign currency denominated debts household indebtedness – as a proportion of disposable income – is still close to the 2008 level, the absence of household investment may remain a protracted process for years to come.

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