*Civic Review, Vol. 15, Special Issue, 2019, 13–43, DOI: 10.24307/psz.2020.0202*

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# Successful Crisis Management in the Light of the Twelve Economic Turnarounds

*Summary*
In 2019, now more than a decade after the global economic crisis of 2008–2009, it is appropriate to look back on the events of the period, which was one with a major bearing on economic history. The complex challenges emerging in the aftermath of the global economic crisis and the answers given to them remain fundamental determinants of our daily lives to this day. Moreover, as on a number of occasions in the course of history, the economic crisis also challenged the dominant trends in connection with the development of economics as a science. The very first and perhaps the most important reference point in the debates was the way in which to manage the crisis. According to neoliberalism, the former predominant school of economic thought, short-term salvation could be found by supply-side reforms causing demand to decline, a view which was increasingly challenged over time by economists seeking a broad distribution of Keynesian economic stimulus and the burdens of reform. Hungary is a country where this debate and its consequences have been quite spectacular.

Due to the flawed economic policy pursued before the crisis, the global storm of 2008–2009 hit an extremely weakened Hungary. As a result of that and the flawed crisis management based on neoliberal foundations that predominated the period, Hungary suffered one of the worst crises seen in Europe up to 2010. In the aftermath of the severe damage, the civic government entering office in 2010 announced a new approach to crisis management. Building on coordination between branches of economic policy, the strategy adopting a combination of innovative, conventional and unconventional measures successfully stabilised Hungary, setting the country on

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a new path of convergence. This paper provides an overview of the most important steps and achievements of that crisis management.

**Journal of Economic Literature (JEL) codes:** G01, E60, O47, E52
**Keywords:** economic crisis, economic policy, economic convergence, monetary policy

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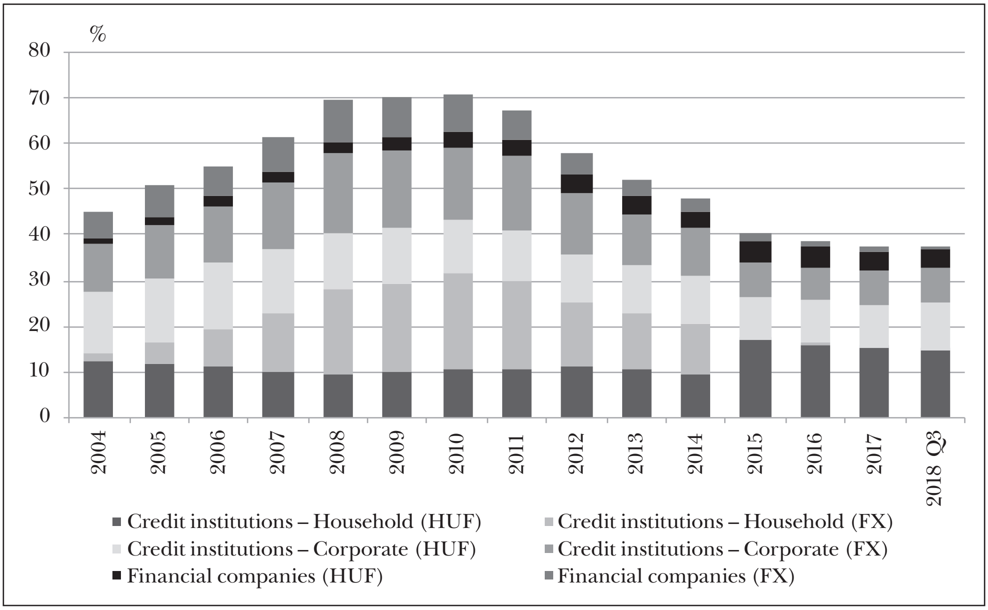
## Hungary in the years before the crisis

The global financial crisis of 2008 hit an extremely weakened Hungary. Well before the crisis, serious funding and structural problems had emerged. As a result of the fundamentally flawed economic policy pursued after 2002, which built on external indebtedness, imbalances developed in a wide range of areas across the economy. These imbalances contributed to Hungary's deteriorating competitiveness, a halt in convergence, and increased vulnerability. The potential growth rate of the Hungarian economy increasingly fell behind rates in the EU Member States and the Visegrád Countries (Czech Republic, Poland, Slovakia), exacerbated by a low level of employment, slowing productivity growth, and an inadequate level of investments. Well before the crisis, starting from 2005, the investment rate had declined, showing substantial divergence from regional developments. Hungary's activity and employment rates were among the lowest in the European Union. Before the crisis, excessively high taxes on labour and an overly generous system of social benefits had acted as barriers to the development of the labour market on both the demand and the supply sides, hindering economic growth.

In addition to soaring public deficits, a major current account deficit had also accumulated. In the absence of adequate internal savings, the Hungarian economy embarked on the perilous path of external indebtedness, with all economic agents accumulating significant volumes of debt, to a large extent denominated in foreign currency. The general government financed the deficit primarily from external funds, which gave rise to high levels of rollover and exchange rate risks, while also increasing external debt. The situation was exacerbated by the fact that – in the absence of adequate available internal savings – the domestic banking sector increasingly provided credit in foreign currency, primarily in Swiss franc (Matolcsy, 2008).

Apart from the course of fiscal policy, matters were made even worse by monetary policy decisions. Responding to the flawed economic policy measures that had led to high external debt and thus weakened the forint, in 2003 the central bank raised the base rate to 12.5 per cent, a particularly high level by historical standards. While this prevented the HUF exchange rate from depreciating further, the resulting double-digit lending rates gave rise to return requirements that manufacturing companies found difficult to meet. Moreover, the artificial strength of the exchange rate boosted foreign currency lending, driving economic agents to replace the now expensive forint funds with foreign currency loans on an increasing scale. By the time of the crisis, the volume of credit as a percentage of GDP exceeded 70 per cent, in which the share of foreign currency loans was steadily rising, exposing the private sector to elevated exchange rate risk (Matolcsy, 2007).

*Figure 1: Credit-to-GDP ratio in Hungary*




*Source: MNB*

## First responses – conventional formula, failed crisis management

In the risk-averse market sentiment prevailing after the crisis, in the space of less than one year the forint depreciated by close to 40 per cent from the level of EUR/HUF 230. As a result of the high foreign exchange exposure, households were hit particularly hard by the depreciation of the domestic currency. Due to the rising exchange rate, households were faced with a drastic increase in their payment-to-income ratios, while the options for public debt financing narrowed. All of this was accompanied by the excessive deficit procedure (EDP) that had been in place against Hungary since 2004, adding to the difficulties in managing the crisis.

Clearly, budgetary consolidation was needed, but a flawed assessment of the problems impeded crisis management. The measures focused exclusively on the supply side of the economy, putting an additional squeeze on the already sluggish demand through austerity. However, measures focused on the supply side could not be successful, because policy-makers applying fiscal austerity significantly underestimated the size of the fiscal multiplier (the growth effect of a unit of government action) and its devastating force in an environment of recession (Matolcsy, 2018). Despite the government's cutbacks on fiscal expenditures, fiscal consolidation was undermined by lower tax revenues due to the accompanying contraction in internal demand, which was even accelerated by the measures. Instead of the desired restoration of equilibrium, the results were a deeper recession, rising unemployment and steadily increasing debt ratios. Conventional crisis management based on austerity measures only paved the way for additional adjustments.

Amounting to 4 to 5 per cent of GDP, the fiscal austerity measures adopted in 2009 based on the IMF–European Commission rescue package of autumn 2008 cost households the dearest. The increase in the general VAT rate, the freeze on wages in the public sector, the withdrawal of 13th-month incomes and 13th-month pensions, the changes to pension indexation, the increased retirement age, the freeze on the family allowance, and the more rigorous rules of eligibility for childcare aid and childcare allowance, all hit households, which were simultaneously faced with increased instalments on their foreign currency loans. On the other side of the scale, there was only a moderate reduction in contributions payable on labour, and a slight increase in the minimum wage. Owing to the spillover effects, rather than driving economic developments towards equilibrium, the measures implemented resulted in major real-economy sacrifices and persistently high inflation (Matolcsy, 2015).

The austerity measures and the gradual decrease in the wage ratio led to a substantial contraction in household consumption and consequently in Hungarian output, resulting in even poorer debt indicators for the country. Additionally, despite the availability of EU funds, investments saw an even greater fall than consumption overall, further reducing Hungary's potential growth. On the whole, due to the high fiscal multiplier resulting from the crisis environment, the role of fiscal policy in the post-crisis decline proved to be decisive (Matolcsy, 2018).

The failure to implement comprehensive tax reforms was accompanied by unfortunate timing, given that the whole of Europe was functioning in crisis management, as a result of which external demand could not contribute to counterbalancing the losses incurred on the expenditure side of the budget. Indeed, conventional crisis management based on austerity measures brought new problems to the surface. The electoral mandate of the governing party was severely damaged, which led to political instability and a government crisis. Financing and growth problems evolved into a political crisis, as a result of which, over time, economic policy lost its social support for the introduction of reforms of any kind. Consequently, a turnaround towards equilibrium could only be made by means of an economic policy that went beyond the conventional formula of austerity measures, the opportunity for which was created by the 2010 change in government.

## Historic turnarounds in post-2010 Hungarian economic policy

In and of themselves, recessions do not only involve a fall in aggregate demand, but also provide an opportunity to renew economic thinking. New types of ideas challenging the former mainstream may also gain prominence, potentially offering new ways to reflect on the way a crisis is managed. In 2010, economic policy faced multiple problems as a result of the earlier flawed crisis management. Its task was to create financial stability and implement structural reforms at the same time. The government coming into office made a radical break with the previous crisis management practices. In order to stabilise the economy, it implemented growth-friendly measures using innovative and targeted means, while also improving the fiscal balance (Matolcsy and Palotai, 2014). The following sections address the most important turnarounds achieved in Hungarian economic history since 2010.

### *Turnarounds in fiscal matters*

The change in Hungarian fiscal policy was brought about by the inauguration of the new civic government in 2010, which is now serving its third term. The task did not look easy: financing processes had to be stabilised while creating opportunities for economic growth through structural reforms.

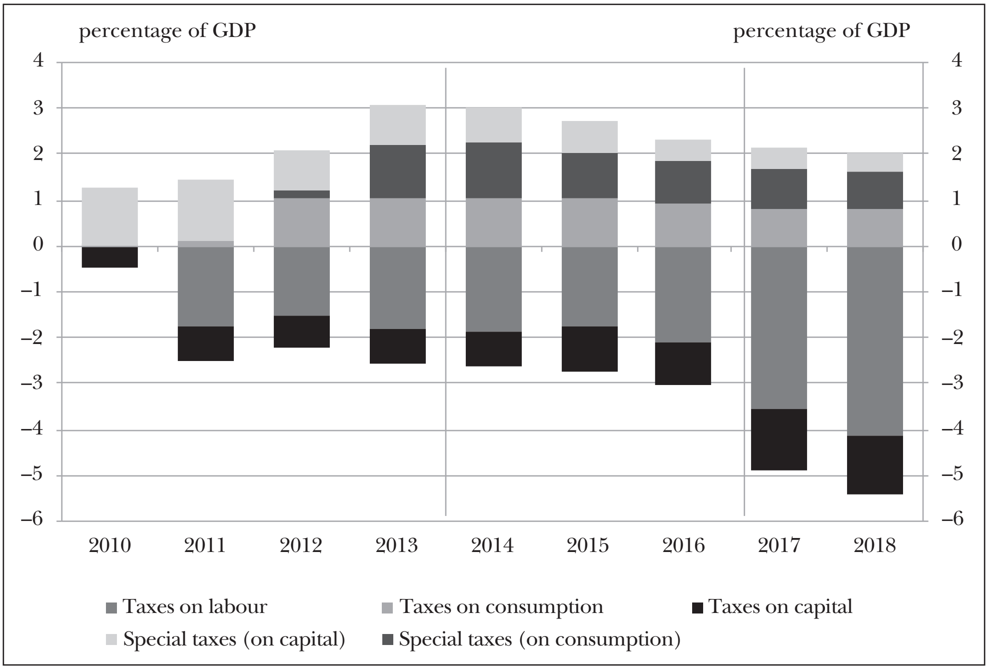
#### Turnaround in the tax regime

The tax regime was reformed with a view to supporting economic growth while maintaining budgetary equilibrium. In order to achieve this dual objective, it was necessary to boost employment and investments, which could be achieved most effectively by reducing taxes on capital and labour. The tax reform launched in 2010 was underpinned by a new philosophy. The most prominent change was the government's shift in focus from taxes on labour and capital to indirect consumption and sales taxes. The reduction of tax and contribution burdens on labour, along with the offer of targeted benefits (Job Protection Action Plan), has had a positive effect on economic operators' labour market decisions, increasing incentives to work (Baksay and Palotai, 2017).

In addition to the taxes on labour, the levies on capital also significantly distort investment decisions by economic operators, and there is broad consensus that they are among the most harmful tax burdens. As early as the second half of 2010, the tax burden on capital decreased significantly as a result of raising the threshold for the higher corporate tax rate from HUF 50 million to HUF 500 million, which expanded the range of small and medium-sized companies subject to the lower tax rate. In 2017 a flat corporate tax rate was introduced, and the rate was lowered to 9 per cent. The Hungarian SME sector enjoys substantial support from the new forms of small taxpayer company forms established in 2013 (KATA, KIVA), which has been used on dynamically increasing scale due to the favourable tax conditions. The measures reduced the tax burden on domestic companies, with tax cuts amounting to up to 2 per cent of GDP by 2018 (Baksay and Palotai, 2017).

Apart from tax cuts to stimulate growth, ensuring the balance of the general government also required measures that provided additional resources for the imple mentation of the tax reform. Budgetary resources could not be provided through

*Figure 2: Cumulative static fiscal impact of tax adjustments implemented since 2010*




*Source: Palotai, 2017*

conventional austerity measures, as they would have in fact undermined the positive effects of tax reform on economic growth. The government thus shifted its focus towards burden sharing. The imposition of consumption and sales taxes is less detrimental to real economic growth as these taxes do not significantly divert capital allocation and labour market decisions. In addition, sector-specific taxes can help to maintain the budgetary equilibrium while leading to a fairer and more equal distribution of public burdens.

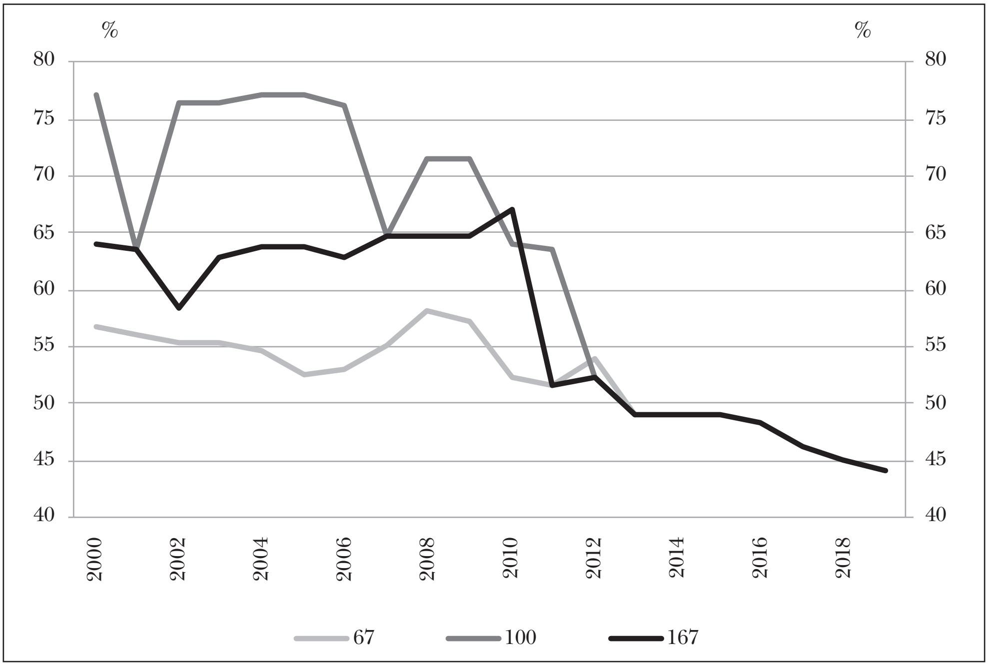
The main thrust of the tax reforms was raising the upper VAT rate from 25 per cent to 27 per cent, raising excise duty rates in several steps and reforming sector-specific taxes. Apart from rate increases, the significant growth in consumption and sales tax revenues was also driven by the gradual widening of the tax bases through a variety of innovative steps for the formalisation of the economy. In the process, a prominent role was played by the introduction of online cash registers, the Electronic Trade and Transport Control System (EKÁER), and online invoicing, along with the implementation of reverse VAT in some areas. As with taxes on labour, economic policy also pressed for the application of targeted allowances in the field of consumption taxes, reducing the VAT rates on certain widely uses services (Internet and restaurants) and on basic foodstuffs (milk, eggs, poultry, fish and pork) (Palotai, 2017).

The increase in the share of consumption and sales taxes was partly due to the imposition of various special taxes. A shift in the tax regime as a whole also took place in sector-specific crisis taxes through the conversion of the special taxes levied on specific sectors into consumption and sales taxes after 2013 (e.g. transaction levy, insurance tax, telecommunications tax, public health product tax). Service sectors with the ability to bear a greater share of the public burdens and subject to lower effective tax rates (retail, finance, insurance, energy, telecommunications) have seen their share of the public burdens gradually decrease in recent years, while the need to maintain the budgetary equilibrium has remained a priority.

### Turnaround in motivation

In cutting taxes on labour, one of the biggest changes was the introduction of the flat-rate personal income tax. The flat rate, first reduced to 16 per cent in 2011 and to 15 per cent in a subsequent move in 2016, was lower than both of the previous tax rates, and the abandonment of progressive taxation supported additional performance, higher labour intensity, and the accumulation of knowledge capital. The marginal tax wedge fell below its previous levels in most wage categories after the reforms in 2013 and has since decreased further as a result of subsequent cuts in taxes and contributions, and due to the substantial targeted benefits available (target groups of the Job Protection Action Plan, family tax allowance) (Matolcsy and Palotai, 2016).

*Figure 3: Marginal tax wedge in Hungary 67%, 100% and 167% of average earnings*

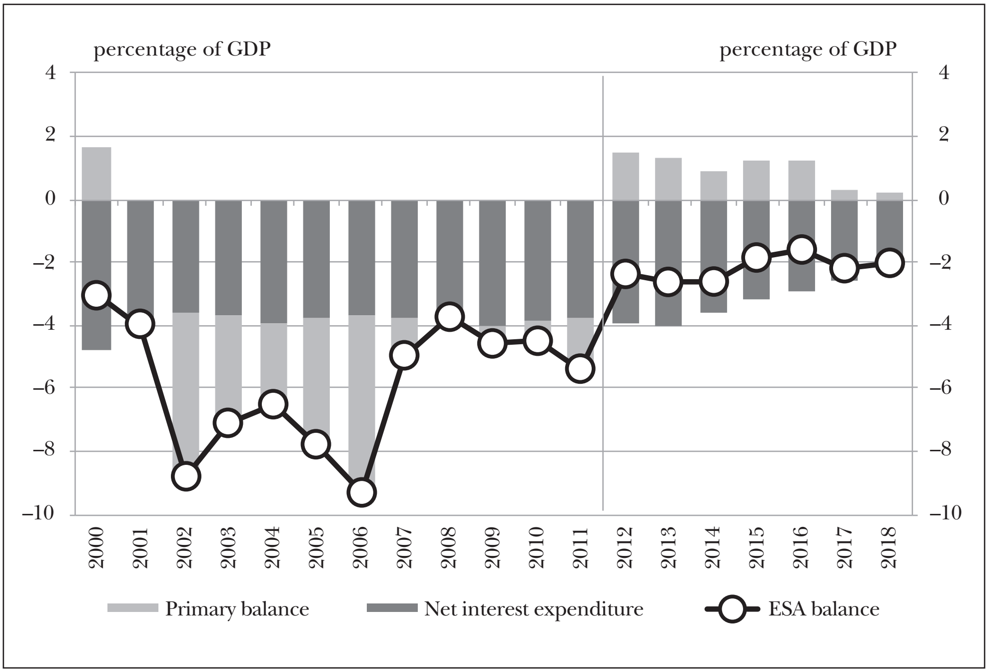



*Source: OECD, MNB*

Turnaround in general government

As a result of the successful fiscal turnaround, since 2012 the deficit has remained stable below the Maastricht criterion of 3 per cent. In order to assess this achievement in Hungary's economic history, it is worth recalling that after the regime change, Hungarian economic policy was never able to bring the deficit below 3 per cent, and doing so ultimately led to the closure of the excessive deficit procedure (EDP) that had been in place against Hungary since its accession to the EU in 2004. Thanks to the fiscal turnaround, the deficit was reduced and economic growth resumed at the same time (Matolcsy and Palotai, 2016).

*Figure 4: Changes in general government balance indicators*




*Note: The data do not contain the imputed interest expenditures incurred since 2012 on account of the pension system reform. The data for 2018 show the forecast in the MNB Inflation Report of December 2018.*
*Source: HCSO, MNB*

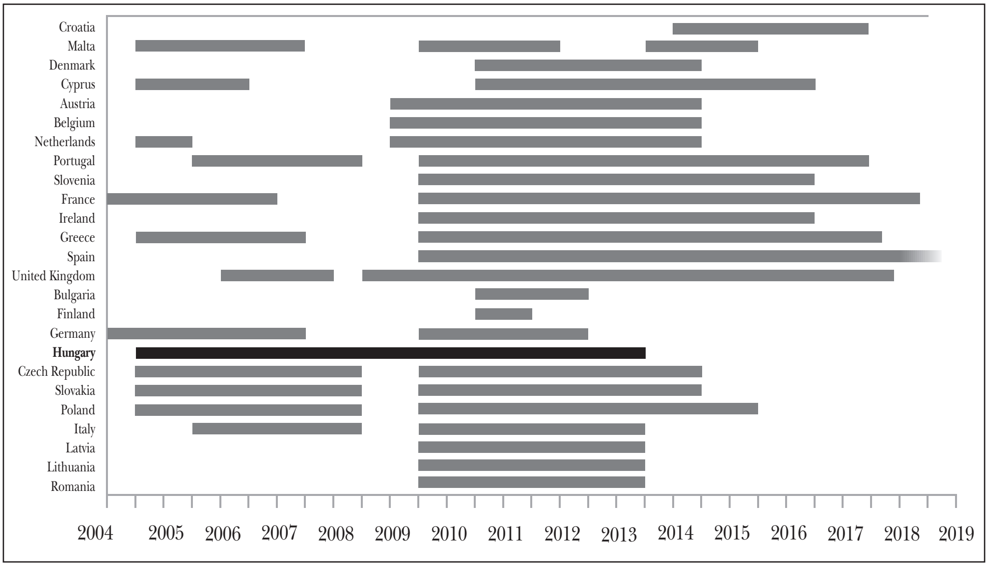
As part of the Széll Kálmán Plan, the social benefit system, which had previously been excessively lax and had in fact provided disincentives to work, was transformed in several stages. In addition to blocking certain fiscal expenditures, the government's new economic policy has also curbed the indebtedness of local governments.

### Closure of the excessive deficit procedure – turnaround in the EDP

Since the year of its accession to the EU, Hungary had continuously been subject to an excessive deficit procedure. Consolidation of the fiscal balance was justified not only by an extremely high level of indebtedness, but also by the need to comply with the requirements of the European Union. Continuous violation of the rule had already compromised access to EU cohesion funds assisting convergence. Improving the general government balance and achieving the EDP closure had thus become inevitable for the reduction of vulnerability factors.

Following the successful fiscal turnaround, after 9 years the excessive deficit procedure against Hungary was finally closed in 2013. The economic policy threat of the suspension of access to EU funds was eliminated, and the achievements of the successful new economic policy could no longer be questioned even internationally.

*Figure 5: Excessive deficit procedures against individual countries*




*Source: European Commission*

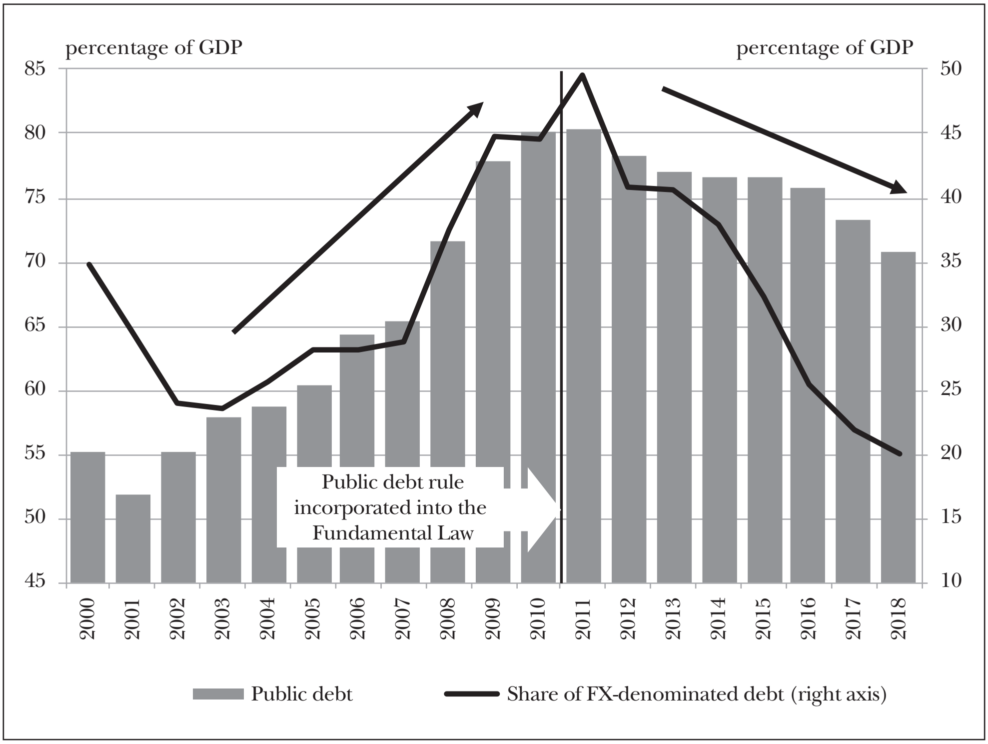
### Turnaround in public debt

One of the objectives set for post-2010 economic policy was to break the rapidly rising trend of public debt and to set it on a downward path. The government enshrined this objective in the debt rule, elevating it to the constitutional level in the Fundamental Law adopted in 2011.

Through the sustainable consolidation of public deficit and by stimulating economic growth, the fiscal turnaround provided for the reduction of the debt ratio, which was stabilised as a result of the measures taken by the government. From its historic peak of over 80% in 2011, the debt ratio was reduced by over 10 percentage points by late 2018, which makes Hungary the only economy in the European Union to have recorded a steady decrease in its gross government debt as a percentage of GDP every year since 2012. This has been accompanied by a steady decrease in the foreign currency ratio of public debt, significantly reducing Hungary's external vulnerability. Amounting to nearly one half of central government debt in 2011, the foreign currency ratio fell to around 20 per cent by 2018. This major reduction was partly due to full repayment of the country's EU and IMF loans. In addition to more moderate levels of risk premiums (CDS) and sovereign market yields, Hungary's improved standing has also been confirmed by the better ratings awarded by international credit rating agencies (Matolcsy and Palotai, 2016).

Recent years have also seen major improvements in the financing structure of public debt, partly supported, via the promotion of domestic financing, by the central bank's Self-financing Programme launched in the summer of 2014 (see below).

*Figure 6: Developments in gross public debt as a percentage of GDP and the foreign currency ratio of debt since 2000*




*Source: MNB*

*Turnaround in the labour market*

Starting in 2008, the global crisis was accompanied by a sharp decline in corporate demand for labour, leading to a major fall in the number of persons employed. In the years following 2010, a number of government measures, mainly aimed at increasing the labour market participation rate, contributed to the recovery of the labour market from the crisis. The number of those becoming inactive was reduced by tightening the conditions of eligibility for disability pension and by gradually raising the retirement age. The reduction in the amount and duration of transfers related to the absence from employment, which may be seen as a measure to tighten the allowance system, discouraged early exit from the labour market. Facilitating the use of flexible forms of work, in particular part-time employment, supported labour market access for certain disadvantaged groups.

In parallel with the government measures to increase activity, the government also provided targeted assistance for the labour-market integration of (mostly disadvantaged) social groups of increasing activity. Employers employing disadvantaged workers (e.g. the unskilled, the long-term unemployed, and people over 55) have been granted significant allowances on their contributions under the Job Protection Action Plan, the primary focus of which is to boost demand for labour. The extension of public employment programmes in 2013 facilitated access to employment for groups that had sought to enter the labour market after inactivity, but had been met with low demand from the primary labour market, thereby providing a major part of those groups with an adequate transition for their subsequent entry into the primary labour market.

Mainly as a result of the introduction of targeted structural measures affecting the labour market, Hungary's activity rate has increased dynamically since 2010. The improvement in Hungary's relative position in terms of the activity rate is mainly attributable to social groups that are at a disadvantage in the labour market: the low-skilled, young people, people over 50, and women with young children. The activity rate of these groups has increased significantly over the past nearly one decade, and the gap with the EU average has also been substantially reduced in the case of these groups.

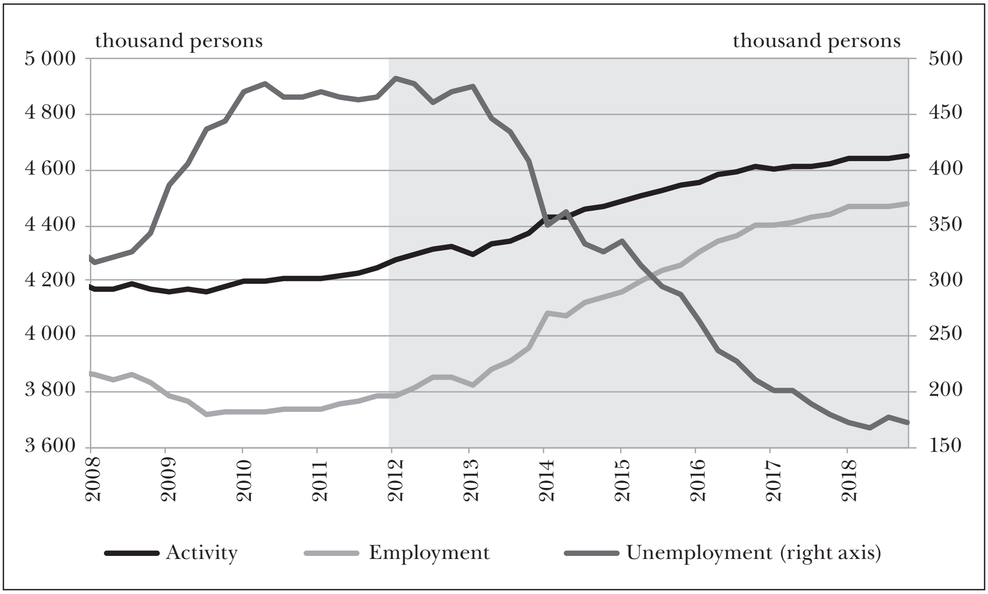
The increase in labour market participation has been accompanied by improvements in employment, with new active labour absorbed by the market. In 2013, employment started to rise rapidly, increasing the number of persons employed by more than 750,000 compared to 2010.

As employment increased, unemployment fell to a historic low. In Hungary, the unemployment rate fell from 11 per cent in 2012 to 3.7 per cent in 2018, which is currently one of the lowest rates in the European Union.

*Turnarounds in monetary policy– achieving and maintaining price stability*

Following the crisis of 2008–2009, successful crisis management was based on finding the right responses, as well as on coordination between key branches of economic

*Figure 7: Changes in the number of active persons, persons employed and the unemployed*



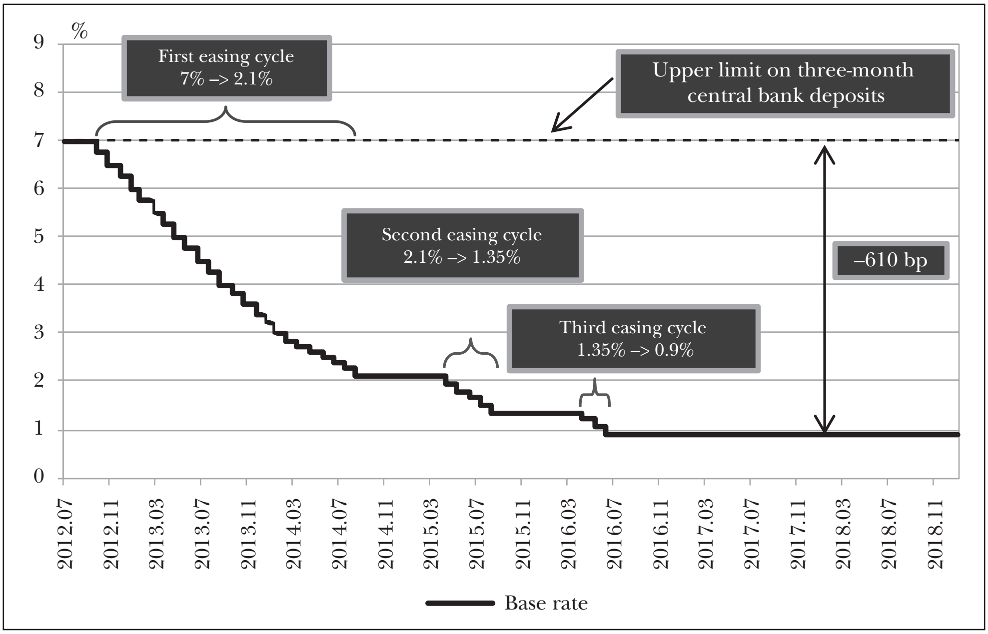

*Source: HCSO*

policy. While the world's major central banks helped their economies with monetary stimulus on an unprecedented scale almost immediately after the onset of the crisis, Hungarian crisis management continued against monetary headwinds up until summer 2012. Monetary policy made a full turnaround with the appointment of the new central bank management in 2013. The renewal of central bank policy was also largely determined by the effective transformation of the institutional system, i.e. the integration of the Financial Supervisory Authority at the end of 2013.

## Cuts in the central bank base rate and their impact

Major central banks around the world responded to adverse macroeconomic developments with immediate monetary easing. The MNB launched its easing cycle in August 2012, cutting the policy rate from 7 per cent by 610 basis points to a historic low of 0.9 per cent in three steps over 4 years. Launching the easing cycle was supported by several factors. Due in part to the successful fiscal turnaround, Hungarian risk premiums showed a sustained improvement in investor sentiment, while a series of new easing measures by leading central banks also provided for looser monetary conditions. The central bank's easing measures were also supported by the fiscal turnaround beginning in 2010, improving fiscal discipline, the declining trend of public debt, the moderation of external vulnerability, and the structural reforms aimed at stimulating long-term growth (MNB, 2017).

*Figure 8: Changes in the Hungarian base rate*




*Source: MNB*

The policy rate was cut in a series of steps until late 2015, when the historic low of 0.9 percentage point was reached. Since then, the base rate has remained unchanged at that level. Keeping the base rate on a sustained hold was underpinned by the idea that the central bank, while easing monetary conditions, would seek to establish interest rate levels that were consistent with the sustainable achievement of the inflation target even over the longer term.

The central bank's easing cycles have had significant growth effects. Substantial base rate cuts have reduced the chances of a deflationary environment emerging, and have contributed significantly to the rise in output. In addition to the positive macroeconomic effects of the easing cycle, the economy has remained balanced, and its external financing capacity has also been stable over time.

The easing of monetary conditions has also had an impact on financial markets. The looser interest rate conditions have greatly reduced the interest burden on the private sector, preventing further falls in the volume of lending, consumption and investments after the crisis. It was not only the private sector that benefited from monetary easing; yields on short-term and long-term government securities also decreased significantly. With sovereign market yields declining, the position of general government improved as a result of falling interest expenditures. While in 2013 general government interest expenditures exceeded 4 per cent of GDP, that ratio was almost halved by 2018 as a result of the gradual repricing of HUF debt.

## Transformation of the central bank toolbox, introduction of unconventional instruments

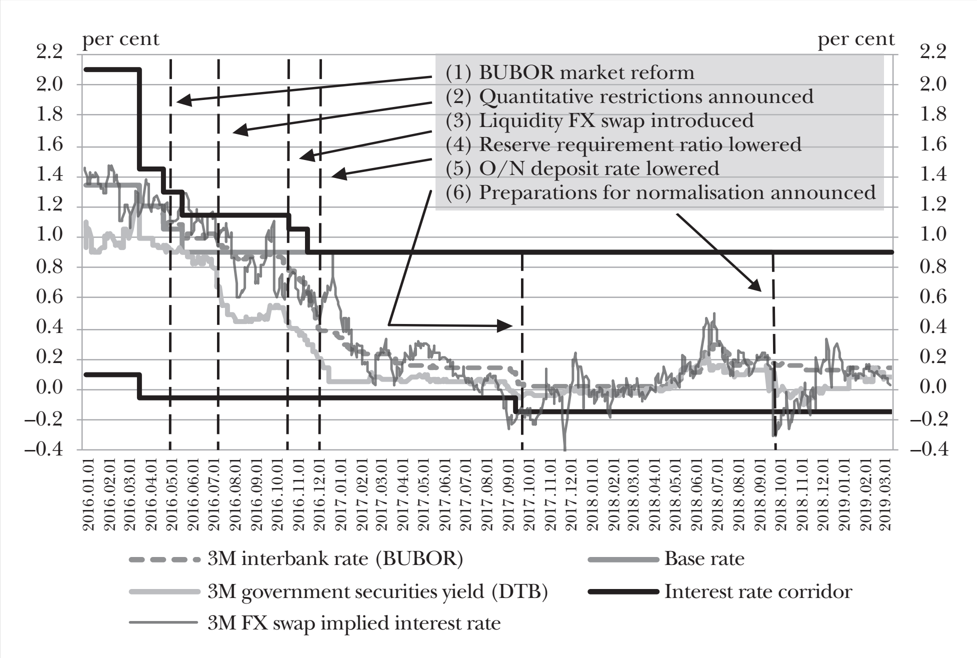
In summer and autumn 2016, the Magyar Nemzeti Bank introduced a new monetary policy toolkit in whereby it carried out unconventional monetary easing while keeping the base rate on a sustained hold, and taking inflation developments into consideration. The core element of the system was the transformation of the policy instrument by means of a quantitative restriction on the three-month deposit, through which the MNB supported lending and self-financing, and ensured a further decrease in relevant money market yields within the interest rate corridor. Implemented from 2016 Q4 onwards, the quantitative restriction was supported by the MNB cutting the O/N lending rate to the base rate, i.e. introducing a completely asymmetric interest rate corridor, and cutting the reserve ratio from 2% to 1%. In autumn 2016, the MNB introduced a fine-tuning foreign exchange swap (FX-swap) instrument, which provides HUF liquidity and enables the central bank to maintain a sufficient level of liquidity in the banking sector by means of weekly tenders.

As a result of introducing the quantitative restriction, the MNB's holdings of the 3-month deposit decreased from almost HUF 2,000 billion in late September 2016 to approximately HUF 900 billion in November 2016 and to HUF 75 billion in late 2017; the instrument was then discontinued in December 2018. The banking sector's surplus liquidity was channelled into O/N deposits, and the downward pressure on yields from crowded out liquidity was perceivable in all relevant markets. After the introduction of the quantitative restriction in summer 2016, yields hit the lower boundary of the interest rate corridor. The effective functioning of the system of quantitative restriction was supported by the fact that, at the initiative of the MNB, in May 2016 the submission system of the BUBOR (Budapest Interbank Offered Rate) was reformed, which, due to the imposition of submission requirements, brought about an increase in the volume of trading in the unsecured interbank market, along with a tangible improvement in the information content of BUBOR rates (MNB, 2017).

At its meeting in November 2017, the Monetary Council took the decision that the loose monetary conditions should have an effect on both the short and the long sections of the yield curve. To ensure this, the Council decided to introduce two unconventional instruments from January 2018, which would constitute an integral part of the Bank's set of monetary policy instruments. Monetary policy interest rate swaps (MIRS) were introduced as a general monetary policy instrument and the Mortgage Bond Purchase Programme (JVP) as a targeted programme, the declared purpose of which was to promote the wider use of fixed-rate mortgage loans and the development of the mortgage bond market.

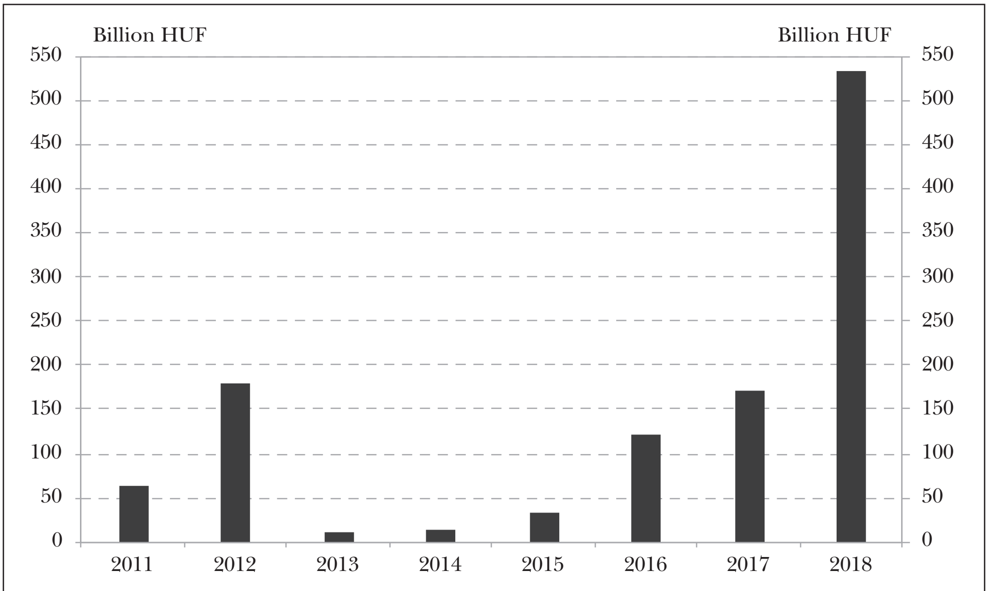
Both MIRS and the Mortgage Bond Purchase Programme achieved their objectives. The instruments supported the extension of loose monetary conditions to long-term maturities, along with market stability, and contributed to the development of the mortgage bond market and to reducing banks' interest rate risk and, consequently, to the further spread of long-term, fixed-rate mortgage loans, where new lending increased from 61 per cent at the beginning of 2018 to about 90 per cent by the end

*Figure 9: Changes in short-term yields (2016–2019)*




*Source: MNB*

*Figure 10: Gross annual market issue of fixed-rate mortgage bonds*




*Source: MNB*

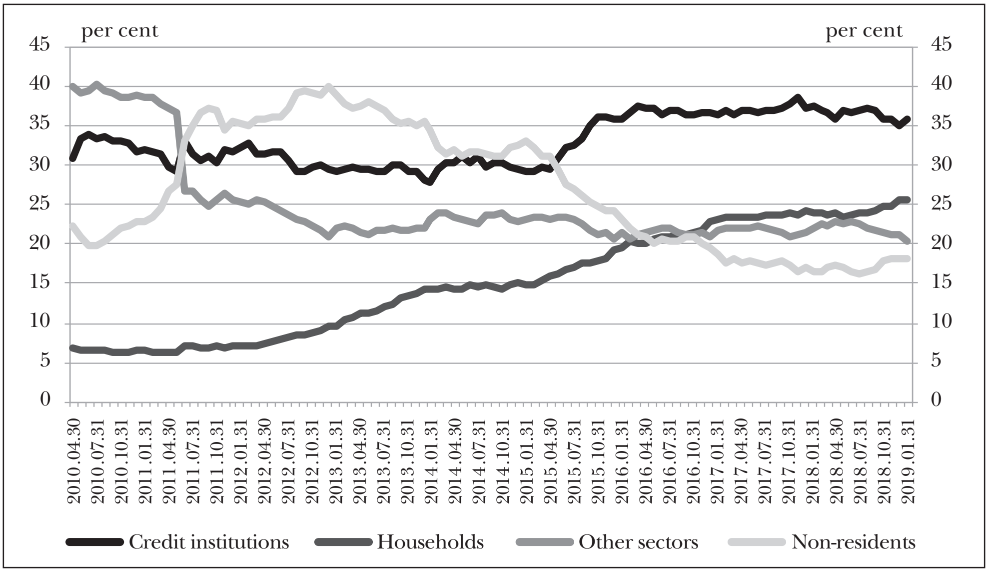
of the year. Compared to sovereign yields, the premium on mortgage bond yields had slipped into negative territory along the yield curve until the phase-out was announced, and low financing costs substantially supported new issuance. The gross issuance of fixed-rate mortgage bonds equalled the combined market volume of the previous 7 years, confirming that the programme supported the development of the mortgage bond market to a substantial extent.

Following discontinuation of the Mortgage Bond Purchase Programme, the MNB will continue to energise the mortgage bond market support banks' access to long-term HUF funding via the use of instruments outside its monetary policy toolkit, in particular by means of regulations on the mortgage financing adequacy ratio (MFAR).[1]

## The Self-financing Programme – towards a more stable economy

The Self-financing Programme was announced in April 2014, and during its implementation the MNB transformed its monetary policy toolkit in order to channel banks' surplus liquidity from central bank deposits to holdings of liquid securities with longer-term securities. Due to the specificities of the Hungarian securities market, this primarily translated into stronger demand for government securities. In combination, the central bank's programme, the foreign currency repayments by the Hungarian Government Debt Management Agency, financed via HUF issues, and the cooperative attitude and adjustment of the banks allowed for a shift towards a healthier debt structure and a gradual decrease in external exposure (MNB, 2017).

*Figure 11: Holders of Hungarian public debt*



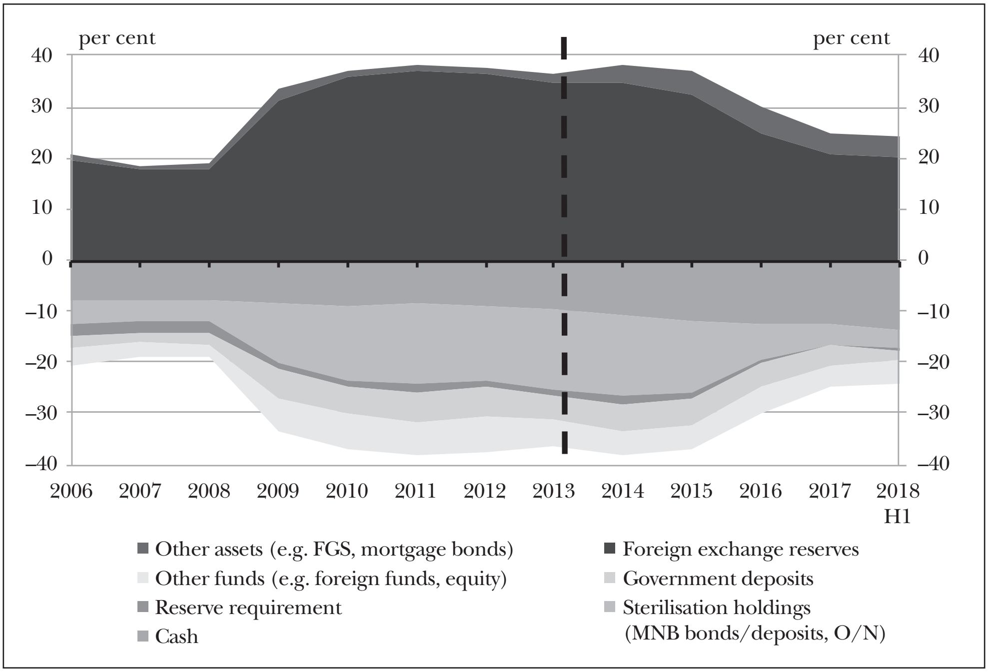

*Note: Up to December 2012, the ratio of credit institutions also includes holdings of money market funds.*
*Source: MNB*

The central bank's Self-financing Programme significantly reduced Hungary's external vulnerability, strengthened its financial stability and improved its international standing. Between 2014 and 2016, the year marking the end of the programme's active phase, Hungary was able to repay nearly EUR 11 billion worth of foreign currency debt, so that sovereign market yields decreased in line with the inflation target. The foreign currency ratio of public debt shrank from 42 per cent in 2014 to 25 per cent at the end of 2016 and below 20 per cent at the end of 2018. The Self-financing Programme played a particularly important role in the realisation of finance based on domestic investors and the local currency, and its results laid the foundation for the strategic objective of bringing government debt fully under Hungarian control.

### Turnaround in the central bank balance sheet – when less is more

Lower external vulnerability made possible a turnaround in the central bank balance sheet, which had a positive impact on both the MNB and the national economy. At the onset of the crisis, Hungary was forced to borrow from international institutions due to the unfavourable financing situation of the state, which led to an increase in the assets and liabilities of the central bank balance sheet. As a result of increased liquidity in the banking system, the bloated balance sheet generated significant interest costs for the MNB. The significant financing capacity created by the economic adjustment following the crisis, and the resulting decrease in external debt and external vulnerability, have made it possible to reduce the central bank balance through targeted programmes without compromising reserve adequacy. This is a noteworthy development even by international standards. Indeed, after the crisis, much of the world followed the emerging trend that central banks generally increased their balance sheet totals in pursuit of their monetary policy objectives. In its monetary policy easing cycle (2008–2014) that followed the crisis, the Fed's total assets-to-GDP ratio increased by 17 percentage points, the ECB balance sheet increased by 20 percentage points as a result of the asset purchases started after 2014, and that of the Czech central bank by 40 percentage points from 2013 onwards due to its bloated foreign exchange reserves. By contrast, since the start of Hungary's turnaround in monetary policy in 2013, the MNB's total assets-to-GDP ratio has fallen by 12 percentage points. Moreover, in parallel with the reduction of Hungary's central bank balance sheet, its structure has also become more efficient due to a substantial decrease in the ratio of interest-bearing liabilities. Despite the low-yield environment, the turnaround in the central bank balance sheet has left ample room for monetary policy actions, while also improving the efficiency of monetary transmission. It is important to emphasise that, in contrast to international developments, the MNB has managed to maintain loose monetary conditions even with a shrinking balance sheet (Erhart et al., 2015).

*Figure 12: Changes in the main items of the MNB balance sheet as a percentage of GDP (annual averages)*




*Source: MNB*

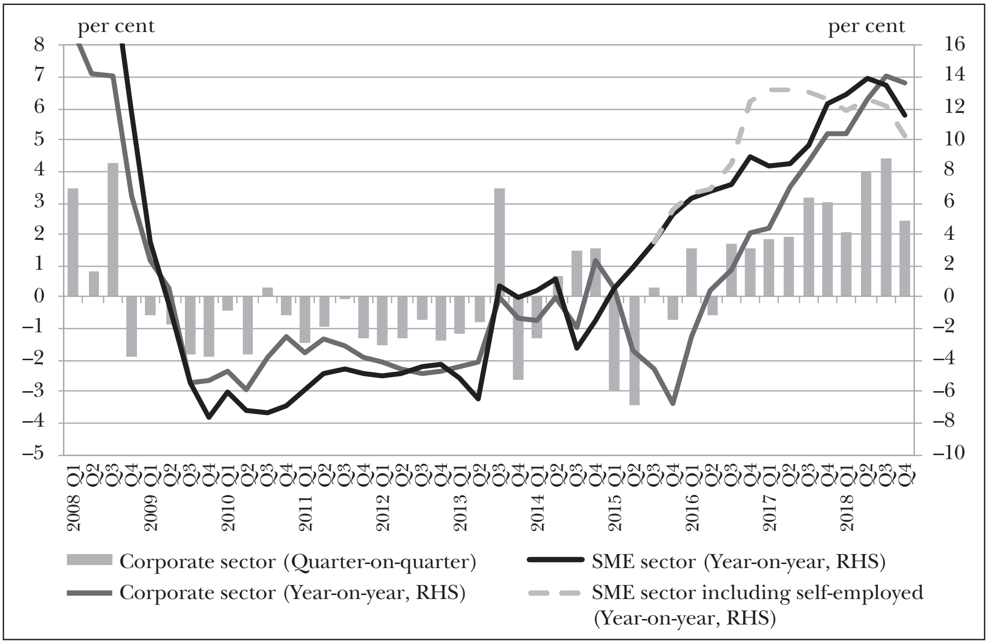
*Turnaround in lending – the ice breaks in a frozen credit market*

Corporate lending

Following the onset of the financial crisis of 2007–2008, the supply of credit in the domestic banking system dropped dramatically, with corporate lending suffering a credit crunch between 2009 and 2013 Q2 (Balog et al., 2014). In these years, as a combined result of disbursements and repayments, the volume of corporate lending contracted by an annual average of 4 to 5 per cent. Micro, small and medium-sized companies, which had only very limited access to other funding, were hardest hit by the shrinking credit volume: lending to these companies fell at an annual rate of around 4 to 8 per cent.

In SME lending, the Funding for Growth Scheme launched in 2013 broke the negative spiral and set developments on a stable growth path. With a slight lag, this trend was followed by the credit volume of the overall corporate sector; consequently, by the end of 2018 both the overall corporate credit volume and lending to the SME sector was growing at a rate above 10 per cent (MNB, 2019b).

*Figure 13: Growth rate of the credit volume in the overall corporate sector and in the SME sector*




*Note: Transaction based, prior to 2015Q4 data for SMEs are estimated based on banking system data.*
*Source: MNB*

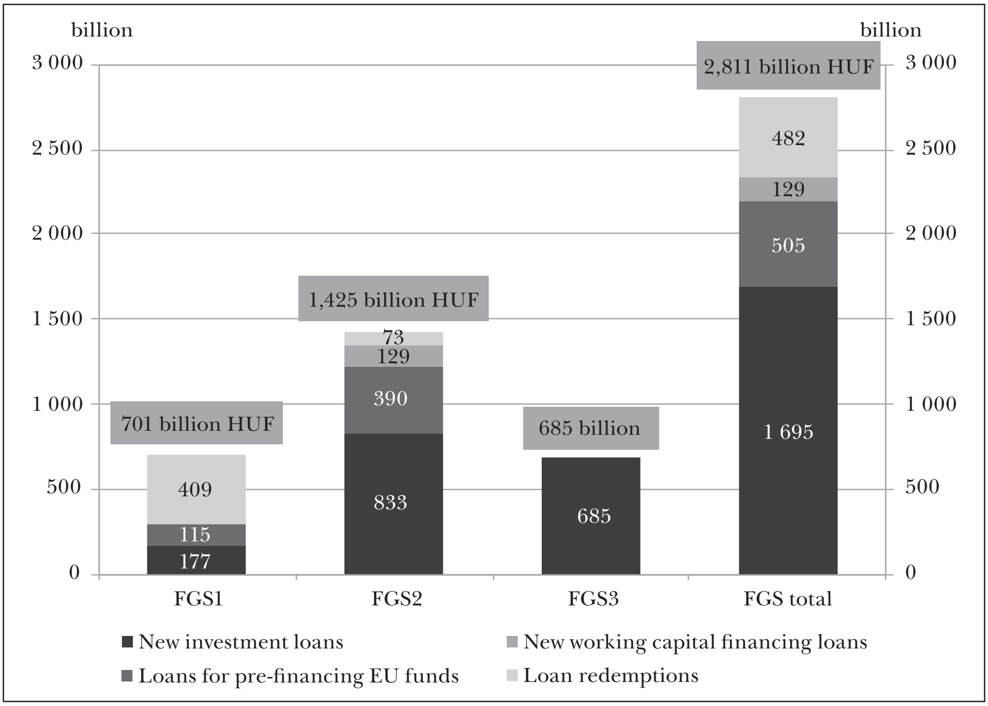
## Introduction of the Funding for Growth Scheme

Short of bank financing, Hungarian-owned enterprises in the SME sector were hit particularly hard by banks' restrained willingness to lend and by rising risk premiums, which increased the risk of the credit market freezing.

In June 2013, the central bank launched the Funding for Growth Scheme (FGS) as a new targeted instrument in its monetary policy toolkit designed to mitigate the protracted disturbances in lending to SMEs, provide a stimulus to the economy and strengthen financial stability. Under the FGS, the central bank provided refinancing loans at a 0% interest rate to credit institutions, which could pass these loans on to SMEs with an interest margin capped at 2.5% and maturities of up to 10 years. This provided a very favourable and predictable financing option, without any exchange rate risk.

The FGS was launched in June 2013, and its first phase, spanning a mere three months, accomplished its short-term objectives, i.e. to ease credit market constraints and boost competition between banks. With a view to achieving a stronger growth effect, in the second phase of the scheme the focus shifted to new lending, and to investment loans in particular, with only limited room for loan redemptions. In autumn 2015, the MNB decided to phase out the FGS, since the objectives set at the start of the programme had been successfully achieved. In line with the intended phase-out, the third phase was even more targeted than the previous two. On the one hand, it enabled HUF-based funding for investment purposes only, while SMEs secured by a natural foreign currency hedge also gained access to foreign currency funding, which had not been available in the previous phases.

*Figure 14: Distribution of loan purposes in the different FGS phases*



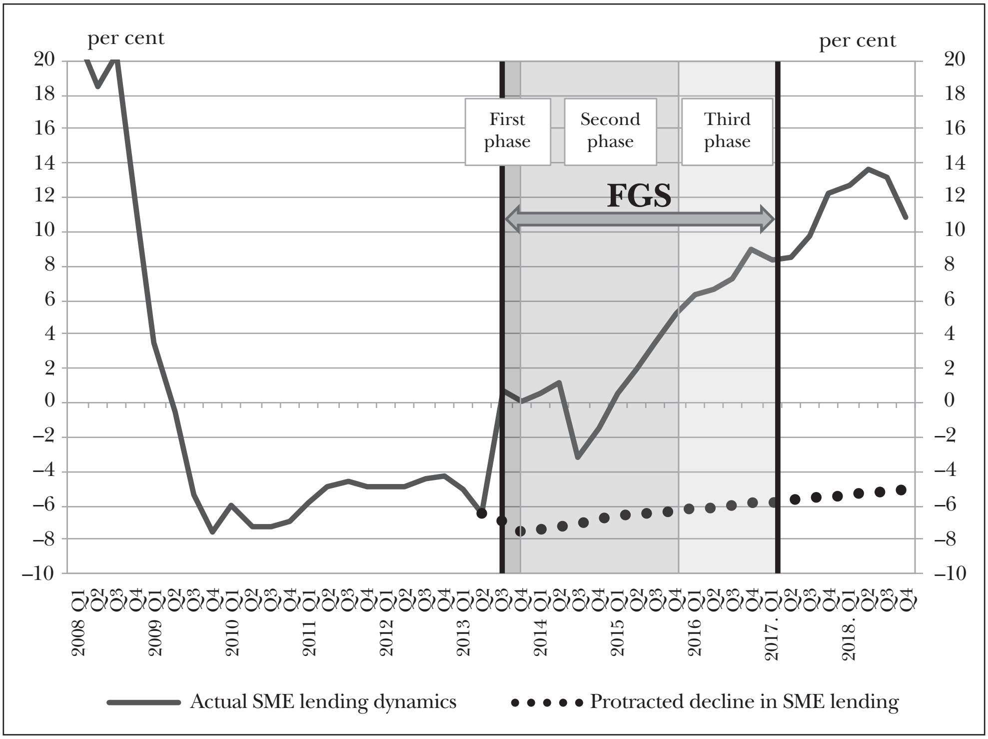

*Note: the data for the second phase of the FGS include the loans extended under the FGS+ scheme, worth HUF 23 billion, which ran in parallel with the FGS.*
*Source: MNB*

Over the approximately four years until March 2017 during which the FGS was operational, almost 40,000 domestic businesses gained access to more than HUF 2,800 billion worth of funding in the three phases of the scheme combined. Of this, nearly HUF 1,700 billion was used to finance investments. In addition to improving access to credit for SMEs, the programme has also had a significant indirect impact by restoring a previously malfunctioning credit market, which has provided a further lasting contribution to economic growth (MNB, 2018a).

### Introduction of the Market-Based Lending Scheme

Against the backdrop of the gradual phase-out of the FGS, in parallel with its third phase, the Market-Based Lending Scheme (MLS) was launched at the beginning of 2016 to promote market-based lending without central bank refinancing.

*Figure 15: Growth rate of the credit volume in the SME sector*




*Source: MNB*

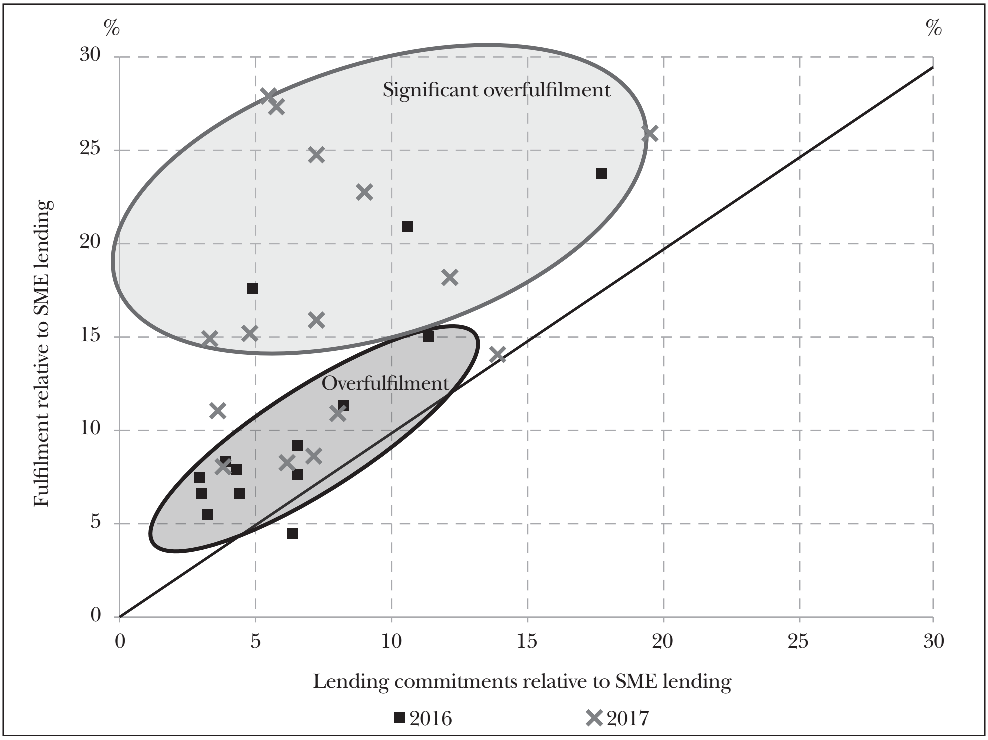
To support lending activity, the MLS employed a combination of two central bank instruments. interest rate swaps conditional on lending (LIRS), and the preferential deposit facility. The LIRS provided banks with a means to hedge the interest rate risk on their long-term SME loans, whereas by accessing the instrument, banks undertook to step up their net lending to SMEs by at least a quarter of the transaction value during the term of the transactions, i.e. over a period of 3 years. Under the preferential deposit facility, the central bank offered credit institutions concluding LIRS contracts the option to earn interest on a larger part of their liquidity at the central bank base rate (MNB, 2015).

The SME lending increment undertaken in the first phase of the MLS in 2016 amounted to approximately HUF 200 billion, corresponding, at the level of the national economy, to a 5-per cent increase in the overall SME credit volume. Under the second phase of the MLS, launched in July 2017, banks continued to increase their SME lending commitments for 2017 (MNB, 2019b).

### Introduction of FGS Fixed

Although by 2018 corporate lending had reached an adequate level in terms of dynamics, its structure was still not healthy enough. The distribution of maturities of

*Figure 16: Fulfilment of the lending commitments made under the Market-based Lending Scheme*




*Source: MNB*

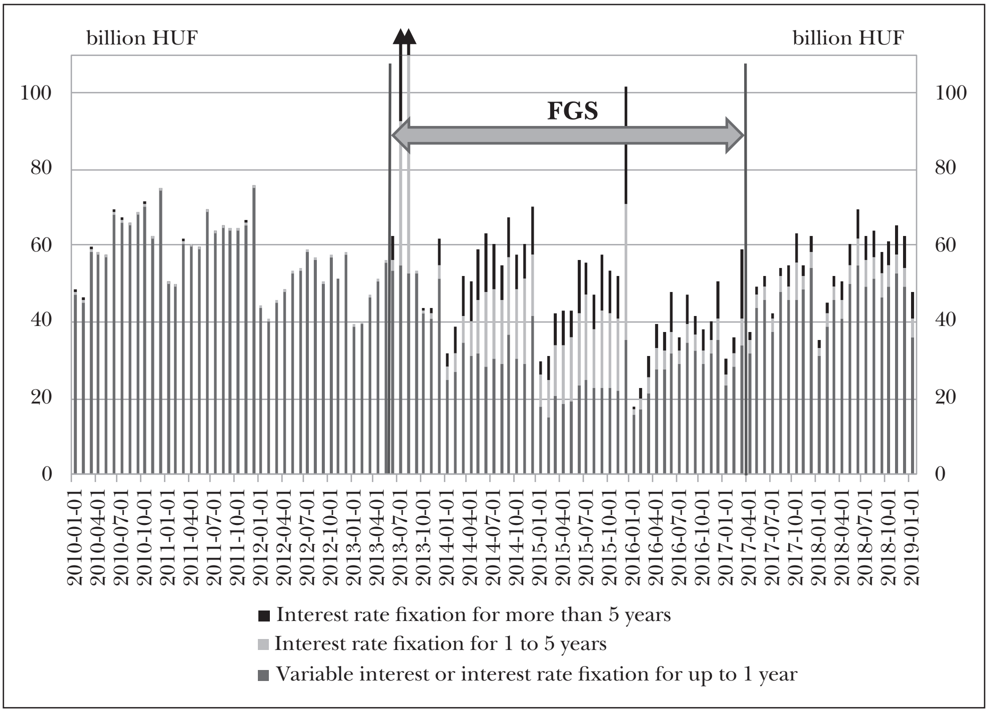
SME loans shifted towards shorter terms, accompanied by another major fall in the ratio of fixed-rate loans.

For that reason, following its decision to reintroduce an instrument that had already achieved significant results and had a positive impact on the volume and structure of lending, in early 2019 the MNB launched a new version of the FGS with an allocated budget of HUF 1,000 billion. The new scheme, announced under the name of FGS Fixed, is identical with earlier phases of the FGS in terms of key parameters and the method of implementation, except that it is even more targeted. It is available for investment purposes only, for maturities of at least 3 years. As a new feature, the programme is liquidity neutral given that banks' surplus liquidity resulting from the credit volume disbursed under the FGS Fixed is sterilised through preferential deposits at the base rate (MNB, 2018a).

### Household lending

Following the onset of the crisis, households' attitudes to borrowing were determined by the pursuit of prudence and debt reduction. Accordingly, credit institutions' household credit volume decreased steadily between 2010 and 2016, in which a major

*Figure 17: Breakdown of new HUF corporate loan contracts of up to EUR 1 million by interest rate fixation period*



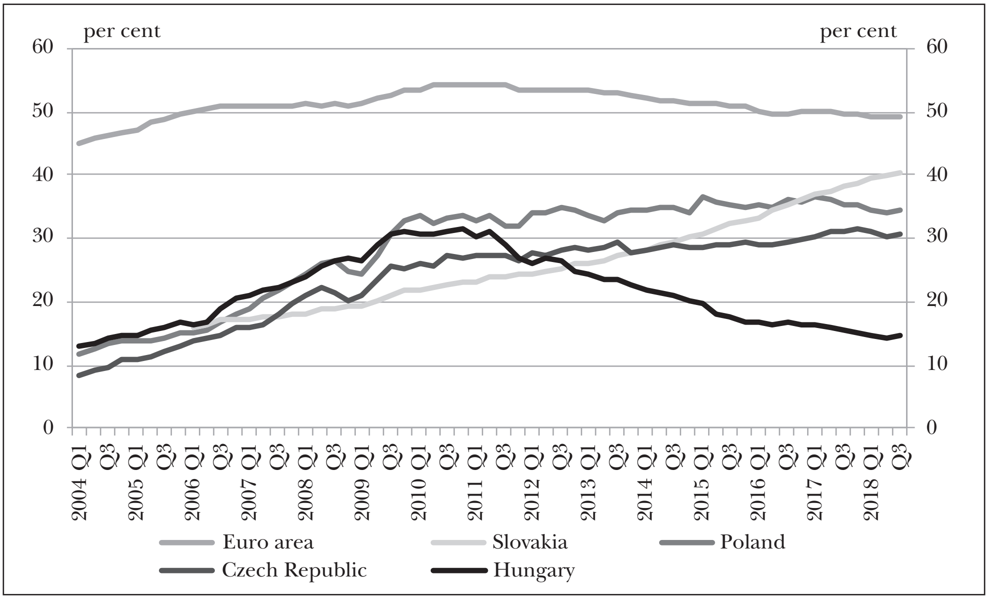

*Source: MNB*

role was occupied by government programmes (preferential full early repayment, and settlement of unilateral interest rate increases and exchange rate margins).

In terms of new contracts, lending reached its low point in 2012 and 2013. In these years, the annual volume of new retail lending was just over HUF 300 billion, representing a drastic drop compared to the HUF 2,000 billion contracted in 2008. However, from 2013 onwards, the retail credit market started to recover gradually as growth picked up in the real economy and incomes. In 2018, total new retail lending reached HUF 1,500 billion, with the overall household credit volume increasing by more than 7 per cent. In 2018, the housing loan market, which plays a particularly important role in retail lending, reached pre-crisis levels in nominal terms in terms of new contracts. In addition, current new lending is accompanied by a far greater volume of maturing loans; consequently, a similar contract volume amounts to a much lower rate of debt growth across the sector.

This becomes evident when looking at household debt as a percentage of GDP: while this indicator stood at 31 per cent after the onset of the crisis (exceeding the readings of several countries in the region), the ratio of household debt to GDP is currently below 15 per cent, which is one of the lowest in the European Union.

*Figure 18: Household credit-to-GDP in an international comparison*




*Source: ECB, MNB*

The healthy growth of household lending is ensured, among other things, by the debt brake rules applied as of 2015 to maximise payment to income and LTV ratios, and by the predominance of loans with rates fixed for longer periods in new lending (MNB, 2019a). In the latter process, an important role was occupied by the introduction of the Certified Consumer-Friendly Housing Loans, which provided consumers with calculable terms of borrowing, while increasing competition through the easier comparability of bank offers. By the end of 2018, the share of CCFHL products had risen to over 60 per cent within loans with interest rates fixed for over 5 years. These rules enable household debt to grow so that debt is spread over the balances of a higher number of households, which in turn makes it less vulnerable to unexpected changes in the economic environment.

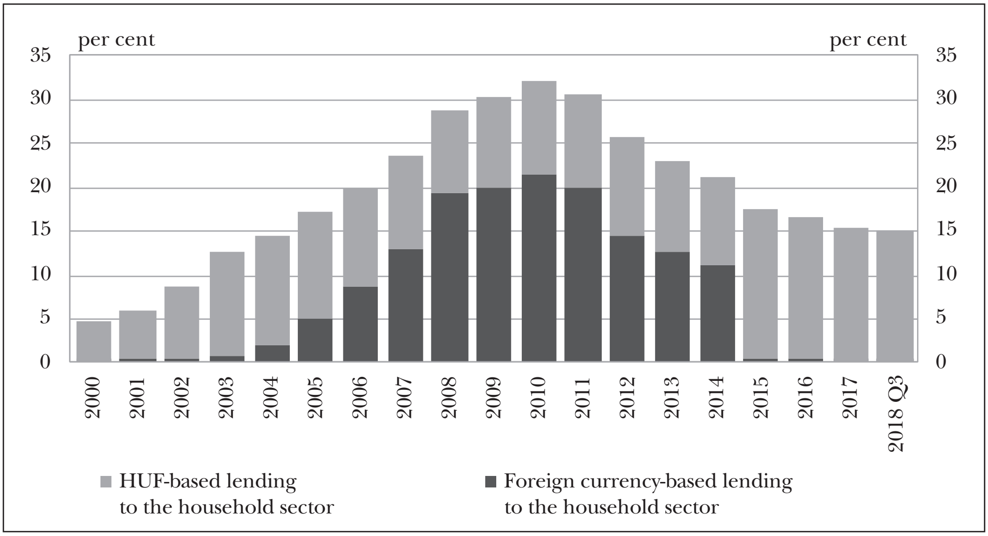
*Turnaround in foreign currency debt – against the trap of foreign currency loans*

Foreign currency lending to households proved to be one of the most damaging and costly episodes in the history of Hungary's financial sector since the regime change. Foreign currency loans carried significant macro-financial risks, which substantially increased Hungary's vulnerability. The HUF conversion of foreign currency loans was therefore a key economic policy objective, which, however, could only be accomplished in 2014–2015. The reason was that the conditions for a conversion that was free of any financial tensions were only in place by that time. These were:

– a robust regulatory environment,
– low forint interest rates,
– a stable and consolidated macroeconomic environment,
– available foreign exchange reserves.

The approximately EUR 9 billion required for conversion was provided to banks by the Magyar Nemzeti Bank, so that the conversion was carried out without causing any tension in the foreign exchange market (Kolozsi et al., 2015). Additionally, the MNB also played a major role in the settlement of accounts taking place simultaneously with HUF conversion, both in the development of the methodology that was mandatory for all credit institutions, and in monitoring the implementation of the measure (MNB, 2016).

*Figure 19: Volume of lending to households in the overall financial intermediary system as a percentage of GDP, by currency*




*Source: MNB*

In the course of HUF conversion, the risk from foreign currency loans was virtually eliminated via economic policy cooperation between the Government, Parliament and the Magyar Nemzeti Bank. The timing of the programme was all the more appropriate in light of the fact that in a mere two months after the exchange rate fixation, the Swiss central bank removed its peg to the euro, which subsequently led to sharp appreciation of the Swiss franc. From the previous range of HUF 250 to 260, the CHF rate surged to HUF 320 in a matter of days; however, the impairment resulting from higher vulnerability could have been much more severe, up to 70 per cent (Fábián, 2015), without the preceding technical implementation of the HUF conversion. In addition to the exchange rate effect, the MNB's monetary policy moves also had a positive effect; namely, the 2.1-per cent BUBOR applicable at the time of conversion has fallen by nearly 200 basis points in recent years, which was also reflected immediately in the interest rate on newly converted HUF loans. Overall, in the four years since the conversion, thanks to the measure debtors have been relieved of significant extra burdens. In combination, the absence of a settlement with banks, continued exchange rate risk, and a persistently high level of external vulnerability could have increased households' expenditures by up to HUF 2,100 billion.

*Turnaround in growth and convergence*

The economic policy turnaround after 2010 affected both structural and financing conditions for growth. Major turnarounds were achieved in many key areas of the economy, which paved the way for the transition of the Hungarian economy to sustainable growth and the resumption of real economic convergence.

Driven by the protracted deleveraging pressure resulting from debt accumulated before the crisis, households' consumption reversed in 2013, following the trend reversal in the labour market. This was largely supported by the reduction of households' foreign currency debt from autumn 2011 onwards, and the introduction of the flat-rate personal income tax. As a combined result, households increasingly stepped up their consumption, creating the most important foundation for strong domestic demand, on which domestic economic growth is based.

Following the crisis, major changes have been observed in households' propensity to save. Since the crisis, the savings ratio has increased to over 9 per cent of disposable income. The financial net worth of households started to increase steadily after 2010 and has reached historically high levels in recent years, while household indebtedness fell below the levels seen in the years preceding the crisis. Between 2010 and 2018, the net financial position of families improved by more than HUF 25,000 billion, nearly one-third of which was due to the reduction of earlier debt, and two-thirds to financial investment from current income, and the revaluation of existing savings. Driven by a stable economic outlook, improving household confidence and favourable income trends have resulted in the persistence of higher savings rates compared to previous periods, providing a stable growth path and financing environment for the Hungarian economy.

Another key pillar of domestic growth comprises the improvement of investment fundamentals as a result of a boost in corporate lending. Thanks to the central bank's loan programmes, the Hungarian economy experienced an investment trend reversal as early as 2014, with the Hungarian investment rate rising from the earlier 16-17% to over 27% in 2018. Expanding investments also provide for an increase in Hungary's potential growth rate over the longer term.

Previously, Hungary had achieved rapid growth only by widening its current account deficit, building on external debt. However, on the new convergence path, the economy is predominantly financed from internal resources, without external indebtedness. Households' high propensity to save, the inflow of EU funds, and the foreign trade surplus accumulated as a result of the strong export sector have all contributed to an improved balance of payments. Overall, the balance of payments has shown a surplus for almost a decade now.

The sustainability of growth has also been supported by the restructuring and steady decline in external debt. Following a turnaround in external debt, the country's net external debt ratio fell below 10 per cent of GDP at the end of 2018 and is currently projected to reach 0 per cent around 2021, i.e. from the end of the decade domestic participants may have more foreign receivables than the foreign debt they are required to repay.

*Summary of the aggregate effects of monetary policy and of the economic turnarounds since 2010*

Overall, both conventional and unconventional central bank moves have provided substantial and comprehensive support for macroeconomic growth. Since 2013 the Hungarian economy has grown by 23.1 per cent in total, almost half of which, 12 per cent, was driven by monetary policy programmes. We estimate that interest rate cuts and central bank programmes directly contributed to GDP growth by more than 6 per cent in 2013–2018. Specifically, the credit flow generated by the FGS contributed 3.5 percentage points, the MLS program 0.9 percentage points, and interest rate cuts 1.7 percentage points. That said, the central bank programmes also have a number of indirect effects. In 2013, the economy was characterised by a credit crunch, where the lack of trust between banks and other participants in the economy was a major barrier to healthy lending. The central bank programme also played a substantial role in restoring confidence and revitalising the SME market. On the other hand, through the conversion of foreign currency loans, households were protected from significant losses, which was one of the drivers behind the turnaround in consumption and household investment. Also taking indirect channels into account, we calculate that the central bank boosted growth by nearly 12 per cent, i.e. more than one-half of the GDP growth of 23.1 per cent over the period.

Thanks to the MNB's easing cycle, its Self-financing Programme, and the transformation of the central bank's toolkit, yields fell significantly, resulting in significant savings for the budget, households and companies alike. Due to falling sovereign market yields, public savings on interest amounted to a total of HUF 2,400 billion between 2013 and 2018. Interest payments by corporates to credit institutions have fallen by a total of HUF 1,400 billion since 2012. Interest payments by households to credit institutions have fallen by a total of HUF 1,400 billion since 2012. Up to the end of 2018, more than HUF 2,800 billion worth of loans were disbursed under the FGS programmes. HUF conversion curbed the increase in households' debt burden by nearly HUF 2,100 billion. The MNB programmes introduced since 2013 have thus injected a total of some HUF 10,000 billion into the economy.

In 2013, real economic convergence resumed amid strong growth across the EU Member States, and the pattern of growth became balanced. In the six years since 2013, domestic GDP growth has averaged 3.5 per cent, approximating 5 per cent in

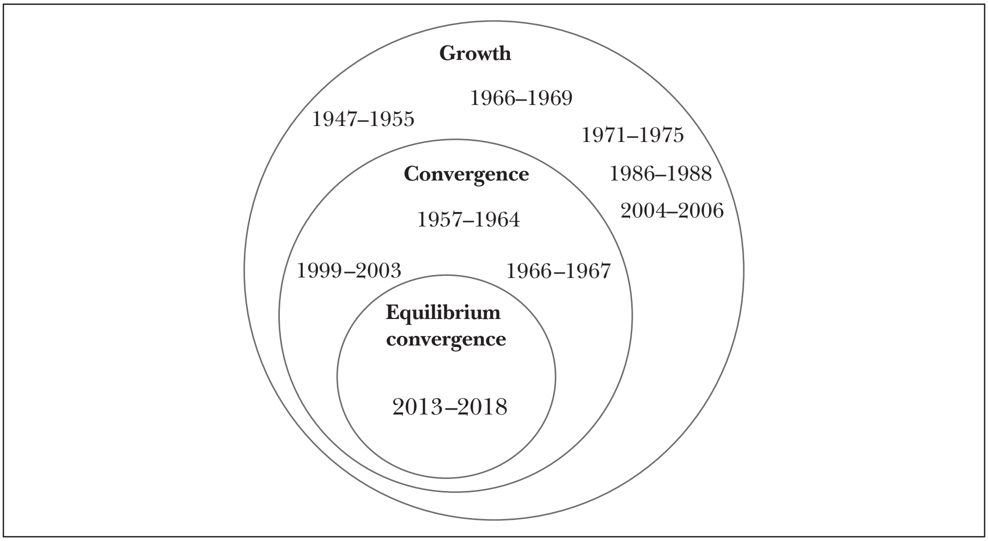
*Table 1: Impact of MNB programmes in HUF billion*

| **Impact of MNB programmes** | **10,100** |
|---|---|
| Funding for Growth Scheme | 2,800 |
| Savings on interest by the public sector | 2,400 |
| Savings on interest by corporates | 1,400 |
| Savings on interest by households | 1,400 |
| HUF conversion | 2,100 |

*Source: MNB*

2018. Moreover, that growth was achieved in a context of moderate economic activity in Europe, whereby Hungarian GDP growth exceeded the growth rates of advanced Western European economies by an average 2 percentage points during the period, and 3 percentage points at the end of the period. What makes the period of growth and convergence since 2013 unique in Hungarian history is that convergence is being achieved under sustainable macro-financial conditions.

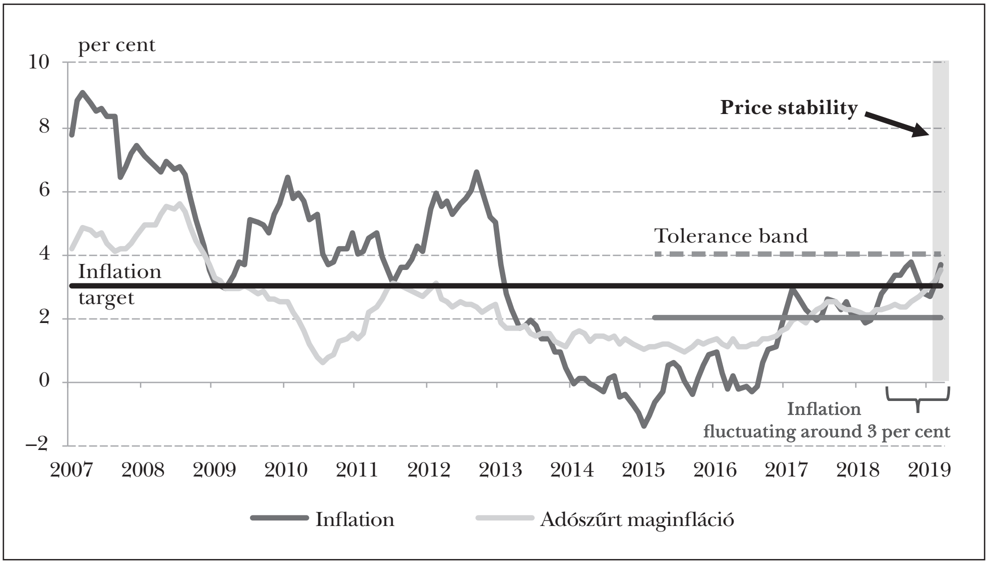
*Figure 20: Growth periods in Hungary*




*Note: A growth period is defined as any period during which real GDP growth of at least 1 per cent can be shown. Another important criterion is that growth should last for 3 consecutive years. For the purposes of this paper, convergence is defined as the approximation of Hungary's per capita level of development, measured in fixed terms in USD, to that of Austria. In that regard, periods have been taken into account in which convergence was achieved for at least 2 consecutive years. For the purposes of equilibrium convergence, years have been taken into account in which convergence was accompanied by a surplus in the balance of payments, and declining external debt.*
*Source: Maddison, UNCTADstat, MNB*

From a central bank perspective, given that the primary objective of the MNB is to achieve and maintain price stability, mention must also be made of price index developments. Domestic inflation remained high following the economic crisis, then fell steadily in 2013 and remained at around zero per cent until 2016 in a global environment of extremely low inflation. However, since the beginning of 2017, except for a few months, the price index has been moving within the central bank's tolerance band, fluctuating around the 3 per cent target since mid-2018. At the beginning of 2019, as tax-adjusted core inflation rises, Hungarian inflation is confirmed to be at a level that is consistent with price stability.

*Figure 21: Changes in inflation and tax-adjusted core inflation*




*Source: HCSO, MNB*

## Challenges of the future

The international monetary policy and macroeconomic environment is currently changing: most of the advanced economies have reached a mature stage of economic growth, emerging market capital flows have become more volatile and uncertainty over the economic outlook has increased. Several analyses have already raised the possibility of the reoccurrence of an economic crisis. For a converging, small, open economy such as Hungary, this means that economic policy must continue its efforts to reduce the country's vulnerability, strengthen the lines of defence created and preserve financial stability.

In order to sustain recent years' rate of convergence over the long term, the positive trends that have emerged must be maintained, while further measures to improve competitiveness are also needed. The key challenge in the process is for Hungary to escape the middle income trap. The lessons learned from economic history clearly show that convergence will not happen automatically. In the case of faster growing economies, their additional economic growth compared to advanced regions usually peters out before they can catch up with the advanced economies.

The point in the turnaround in competitiveness that is required for successful convergence is to replace the former predominantly extensive growth model with a knowledge and capital intensive growth model that is based on quality criteria. There is no universal formula for successful convergence. That said, high productivity, the use of modern technologies, high levels of human capital and favourable demographic trends have generally contributed to the convergence of successful countries. Hungary must also take its own path in strengthening its competitiveness, while also taking into account international experience and domestic conditions.

The 330 proposals of the Competitiveness Programme published by the Magyar Nemzeti Bank in February 2019 seek to promote Hungary's achievement of a turnaround in competitiveness. Implementation of the programme may be sufficient means to ensure that, by 2030, Hungary's level of development is raised to 80 to 90 per cent of Austria's level, which provides the highest standard of living in the region. But those measures can only be assessed by studies to be prepared in more than a decade's time.

## Notes

[1] To be calculated at consolidated level as the ratio of newly raised HUF funds secured by household mortgage loans (e.g. mortgage bonds, other mortgage-backed securities, mortgage bank refinancing loans) to the net volume of household HUF mortgage loans maturing in more than one year.

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