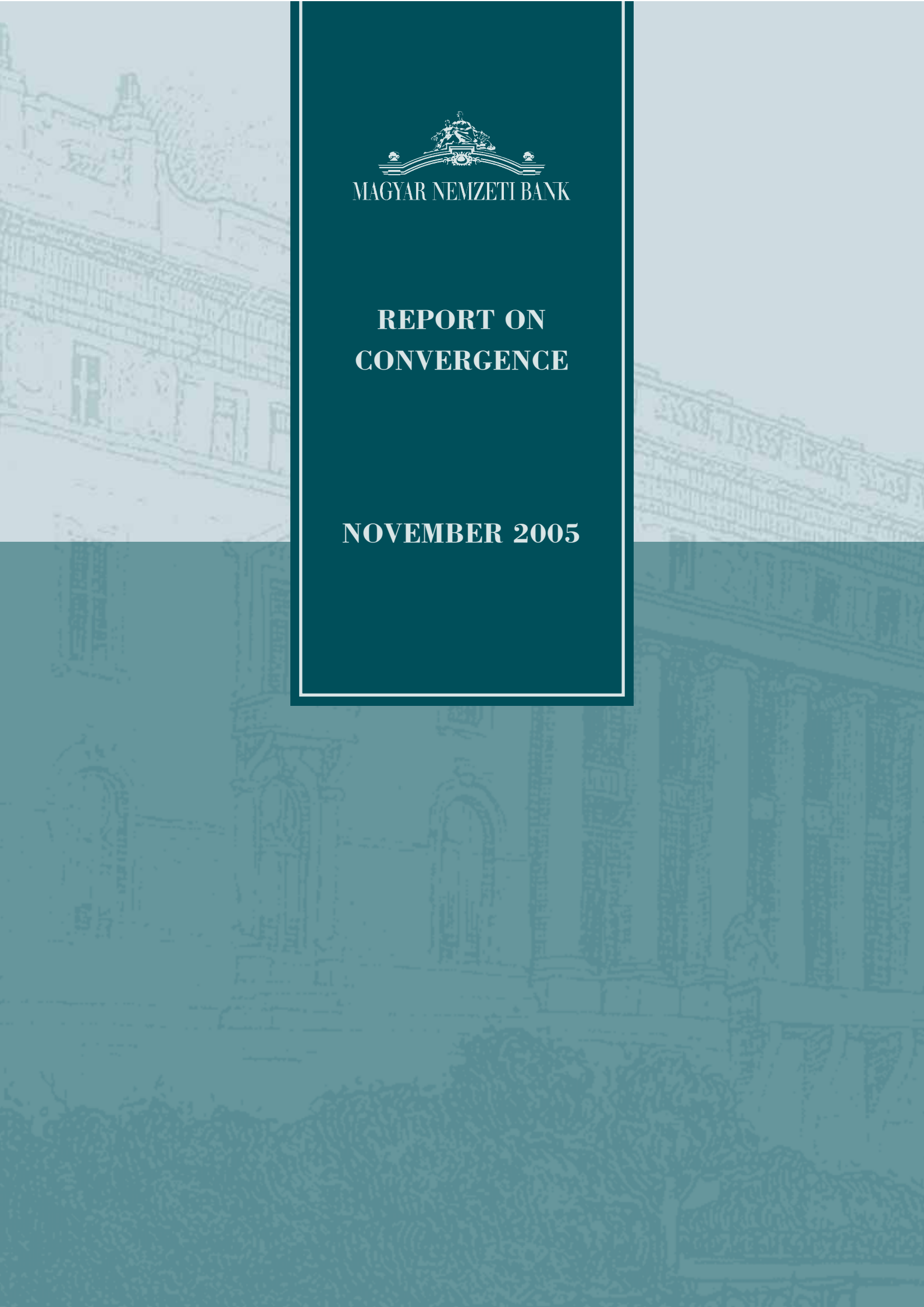

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REPORT ON CONVERGENCE

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Following Hungary's accession to the European Union, the greatest challenge facing economic policy is compliance with the criteria for joining Economic and Monetary Union. Although the adoption of the euro is a medium-term objective, economic policy decision-makers must consider the convergence criteria even now, in order to be able to comply with them at the lowest possible cost.

Similarly to the other Member States wishing to participate in Monetary Union, prime responsibility for the elaboration and execution of the Convergence Programme rests with the government in Hungary. However, the central bank also plays an important role in execution, primarily in the field of monetary and exchange rate policies. The major milestones of convergence, i.e. accession to ERM II and adoption of the euro, can only be reached if the government and the central bank act in mutual agreement. Moreover, convergence indirectly affects the central bank's operations, and the manner in which money and capital market participants perceive future developments in the economy. Furthermore, convergence fundamentally influences domestic monetary conditions, including the scope of interest and exchange rate policies. For this reason, the central bank must continuously evaluate progress in convergence and Hungary's steps towards preparing for the euro.

Due to the role the MNB plays in the convergence process, this overview of the central bank's position regarding the current state of convergence and the challenges expected in the near future may be of public interest. This new MNB publication intends to raise the awareness of decision-makers, professionals and the wider public regarding the frequently intricate issues of participation in Monetary Union and ultimately help Hungary to adopt the euro under the best possible conditions.

The analyses in this Report were prepared by the Economics Department staff under the general direction of Ágnes CSERMELY, Head of Department, with Barnabás FERENCZI, Deputy Head of the Economics Department and Attila CSAJBÓK, Head of the Monetary Assessment and Strategy Division. The Report was approved for publication by István HAMECZ, Managing Director.

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The Report incorporates valuable input from the MNB's other departments as well as the Monetary Council's comments and suggestions following its meetings on 24 October and 14 November 2005. However, the analyses in the Report reflect the views of the Economics Department staff and do not necessarily reflect those of the Monetary Council or the MNB.

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Overview

Euro adoption is beneficial for Hungary

International experience suggests that price stability and the long-term predictability of fiscal policy contribute to persistently faster economic growth. Adoption of the euro provides a unique opportunity for Hungary to join a currency union which has already achieved price stability, and to exploit the benefits of a stable, predictable macroeconomic environment more rapidly and catch up to European Union economies more quickly.

However, certain preconditions must be met in order to benefit from the advantages of joining Economic and Monetary Union and to enable the Hungarian economy to quickly close the economic gap, within the framework of a common monetary policy. Economic agents must adapt to an environment of low inflation, and fiscal policy must be able to smooth the effects of asymmetric shocks to the economy. In order to exploit the additional growth resulting from the adoption of the euro as soon as possible, it is also highly important to establish the exchange rate in such a manner that the real exchange rate is at a close-to-equilibrium level. The so-called Maastricht criteria are intended for the evaluation of the fulfilment of these preconditions, as they require that inflation in countries which intend to adopt the euro be persistently low, that the general government not be excessively indebted, and that the government deficit not exceed a reference value. The most difficult task is the assessment of the exchange rate. The criteria require the country to be able to maintain its exchange rate within a relatively narrow fluctuation band (within the ERM II framework, also known as the "waiting room" for euro aspirants), but developments in real effective exchange rate and external equilibrium are monitored as well, since these indicators may also signal the possible misalignment of the currency.

Hungary is lagging behind both the other countries in the region and the goals set in the Convergence Programme

The 10 new Member States which joined in May 2004 set different target dates for adopting the euro. The smaller countries, which usually pursue tight exchange rate management, intend to adopt the euro in 2007 or 2008, while the 4 Visegrád countries plan to adopt the euro in 2009 or 2010 at the earliest. Of the 10 new members, Hungary is the farthest from the adoption of the euro[1], since it is the only country which has not met any of the numerical criteria.

Moreover, the Hungarian economy is not only lagging behind the other countries, it has also failed to meet the goals set in the Convergence Programme proposed by the Government and approved by the ECOFIN Council in November 2004. The Convergence Programme set 2010 as the target date for euro adoption. In order to achieve this goal, the inflation criterion must be met between March 2008 and March 2009 *(corr. 17 Jan. 2006, Editor),* the fiscal criteria must be fulfilled in 2008, and Hungary must enter ERM II by early 2007.

Compared to the Convergence Programme there are pronounced deviations in meeting the fiscal deficit criterion this year, as the target deficit was exceeded by 2 per cent of GDP in 2004, and by more than 3 per cent of GDP in 2005.

[1] According to the methodology to be valid from March 2007. Until then, debt figures can temporarily be reduced by the effect of the pension reform, but in the evaluation of the convergence criteria the deficit according to the original methodology will be taken into account.

So far, inflation remains on the planned path. Although according to forecasts inflation in the coming two years is expected to decline to around 3 per cent, lasting price stability also requires a slowdown in the price increase of goods and services which do not compete with imports directly. Furthermore, the additional (i.e. real) increase in nominal wages above the long-term level of inflation should also not exceed productivity growth. This is a precondition for the Hungarian economy to preserve its competitiveness, even under a fixed exchange rate regime, and to be able to benefit from the advantages of growth stemming from monetary stability. Future fiscal adjustment would significantly improve the chances of fulfilling the convergence criterion on price stability as well.

The assessment of macroeconomic developments and qualitative criteria suggests that the Hungarian economy is not yet mature enough to join the European exchange rate mechanism at a low level of risk. Although some elements of the current exchange rate regime show similarities to ERM II[2], in order to meet the exchange rate criterion, the exchange rate must be managed within a much narrower band, close to the new central parity. As the disinflation process has not yet come to an end, in the coming period it is not worth limiting the manoeuvring room available in monetary policy; within the framework of inflation targeting monetary policy can more efficiently contribute to the nominal convergence process.

Another argument for delaying ERM II entry is that the Hungarian economy is highly vulnerable to external shocks, as it has been characterised by high current account deficit and growing external indebtedness for several years in addition to the growing internal imbalances. Thus, it is strongly exposed to the effects of changes in international capital markets. Therefore, we believe that it is only worthwhile for Hungary to enter ERM II when the vulnerability of the Hungarian economy has declined to a low level, i.e. when, similarly to the six new EU Member States which have already entered the mechanism, Hungary can "foreseeably" fulfil the convergence criteria, and only needs to participate in ERM II for the necessary minimum period.

The vulnerability of the economy essentially stems from the twin deficit problem, i.e. from the fact that the high borrowing requirement of the general government has resulted in lasting external imbalance. Therefore, problems related to the competitiveness of the economy do not constitute the underlying reason for the current account deficit. Consequently, if economic policy firmly commits itself to following through with fiscal consolidation, in the course of which a real reduction in the general government borrowing requirement could be accomplished, this process will automatically be coupled with an improvement in the external equilibrium position as well. Although in the past there were several stabilisation experiments through devaluation and/or increasing inflation, in the current situation macroeconomic stability can be attained simultaneously with maintaining the low-inflation environment as well.

It is in the best interests of the Hungarian economy to fulfil the criteria as early as possible and in a sustainable manner

The fact that Hungary meets neither the quantitative nor the qualitative requirements is attributable to one common reason, i.e. the current position of the fiscal policy. The developments in and quality

[2] In the current Hungarian system, the central parity does not have a marked role; monetary policy enjoys significant independence. In ERM II, the central parity is the nominal anchor of the mechanism, and longer-term efforts should concentrate on the exchange rate remaining close to parity. Meeting the criterion also means that significant depreciation (exceeding 2.5%) is not allowed even for a shorter period of time.

of fiscal policy are critically important in terms of the convergence process and the future of the Hungarian economy as well.

There are three aspects worth emphasising with regard to the fulfilment of fiscal criteria and the timing of fulfilment. Firstly, the requirement of fiscal adjustment is independent from the timing of the adoption of the euro. The Stability and Growth Pact, which stipulates that each country is obliged to reduce its government deficit and attain a close-to-balance fiscal position or a slight surplus, is uniformly binding upon all Member States of the Union. The new Member States that joined in 2004 were allowed to reduce the deficit below 3 per cent by the end of the first 4-year Convergence Programme, i.e. by 2008 the latest. Deviation from the fiscal path may result in a series of consequences, the most serious of which is the suspension of Cohesion Funds. At its meeting on 8 November 2005, the ECOFIN Council concluded for the second time that Hungary is the only new Member State which has not made the necessary efforts to achieve fiscal consolidation. Therefore, in January 2006 it is anticipated that ECOFIN will submit new recommendations indicating what measures it expects from the Government to terminate the excessive deficit.

Secondly, fulfilment of the convergence criteria establishes the basis for the future performance of the economy: thus it is in the country's interests that fulfilment of the criteria is achieved on the basis of lasting, high-quality adjustment. Several European countries which became members earlier were marked by examples of meeting the conditions for adopting the euro by applying accounting "gimmickry" or temporary measures. In terms of economic growth, these countries frequently showed the weakest performance in the Union, as the costs of postponing adjustment resulted in a substantial burden on their economies following entry.

Finally, in formulating the convergence path one must not disregard that in recent years the Hungarian economy has been on a path which is unsustainable over the longer term. If it is not the adjustment of economic policy, but rather markets that force a correction in the economic path, this will be coupled with a prolonged and significant decline in growth. Capital market participants expect economic policy adjustment to be carried out, so they are willing to fund the economy at risk spreads which are moderate relative to emerging countries and the economic fundamentals, although these risk spreads are extremely high by regional standards. However, this trust could easily collapse, if the economy continues to stray from the convergence path for a longer period of time. Therefore, an economic downturn can only be avoided, if external and internal imbalances are alleviated, bringing Hungary closer to fulfilling the convergence criteria which are the preconditions for adopting the euro.

Front-loaded fiscal consolidation is required, incorporating a major shift in structural budgetary processes

The rapid reduction of the fiscal deficit is key to keep the economy on a sustainable growth path. International experience suggests that lasting improvement is brought by consolidation programmes which concentrate the burdens at the beginning of the adjustment period and are based on the reduction of spending. It has been found that such programmes imply the smallest output loss. Success is also increased if a lasting reduction is attained mainly in operational costs as opposed to investment spending.[3]

Over the last three years developments in Hungary have moved in the opposite direction. Whereas

[3] MNB Background Studies 2005/1: 'Structural challenges towards the euro: fiscal policy' by Gábor P. Kiss, Péter Karádi and Judit Krekó.

due to tax reductions revenues declined by 1.5 per cent of GDP, primary expenditure, which is the steadiest expenditure component, increased from 35 per cent of GDP in 2000 to over 40 per cent. Hence, the increase in the deficit and its stagnation at a high level was due to structural reasons and was a predictable consequence of the measures taken. Although attempts were made to prevent the government deficit from exceeding the planned targets by holding back or organising investment spending outside the scope of the budget or by applying other creative accounting solutions, some of these solutions later required methodological revision, as they were not compatible with European rules of fiscal recording.

The 2006 budget draft suggests that fiscal adjustment will be postponed

The 2006 budget draft does not guarantee that fiscal policy will approximate with the Convergence Programme. According to the 2006 budget draft, which currently under debate, if expenditure is recorded on an ESA basis, the official deficit target is 6.6 per cent. Even if this target is met, it does not represent a real fiscal adjustment compared to 2005, as the improvement is only attributable to the fact that certain investment spending is shown outside of general government. For the years 2007-2008, the announced fiscal measures imply further deterioration in the fiscal stance. Barring the implementation of offsetting measures, the increases in transfers and implementation of the tax reduction programme spanning several years would result in a significant increase in the budget deficit.

The 2006 budgetary proposal and the other measures which have been announced lead to a further deterioration in the structural fiscal position, and thus continue to incorporate all of the implementation and methodological risks which contributed to the fiscal slippages in previous years.

All things considered, on the basis of the measures that have been already announced – without offsetting measures – the ESA budget deficit may swell to as high as 9-10.6 per cent of GDP in 2008; consequently, fiscal consolidation on the order of 5.5 -7 per cent of GDP is required to meet the fiscal deficit criterion.

The current fiscal situation and an analysis of the potential solutions indicate that the Hungarian fiscal budget is confronted with serious structural problems and that there is no "easy" way out. In order to comply with the Maastricht criteria, fiscal policy must simultaneously take measures in a number of fields, accompanied by significant short-term costs in each case. There are substantial limits to the reduction of investment spending.[4] It is necessary to reduce the government's net operational expenditure, most effectively through a lower number of employees and a wider scope of co-payment from public service users. However, the necessary size of deficit reduction cannot be attained by far-reaching cuts in net operational expenditures alone, thus the balance of taxes and transfers must be improved in order to meet the Maastricht deficit criterion.

Finally, we should like to emphasize that fiscal consolidation should continue even after the Maastricht criteria have been met. According to the Stability and Growth Pact, fiscal policies should aim at balanced positions. In formulating longer-term plans it is also important to take into account that, due to the ageing of the society, maintaining the pension system with the current parameters imposes a gradually increasing burden on the general government.

[4] In certain areas investment spending was postponed in past years as well, and the EU Cohesion Funds can be used only if the government provides co-financing.

Table

Summary Table of Compliance with the Maastricht Criteria

COUNTRY	Inflation avg. of Oct. 2004-Sept. 2005 (%)	Budget balance 2004 % of GDP (ESA)	Public debt 2004 (% of GDP)	Long-term interest rate avg. of Oct. 2004-Sept. 2005 (%)	ERM II entry date	No. of criteria met
Reference value	2.4	-3.0	60.0	5.5		
Czech Republic	1.7	-3.0	36.8	3.7	-	3
Lithuania	2.7	-1.4	19.6	3.8	June 2004	3
Slovenia	2.7	-2.1	29.8	4.0	June 2004	3
Estonia	4.2	1.7	5.5	4.1	June 2004	3
Latvia	6.8	-1.0	14.7	4.1	April 2004	3
Malta	2.2	-5.1	75.9	4.6	April 2004	2
Slovakia	3.4	-3.1	42.5	3.9	-	2
Poland	3.0	-5.8 (-3.9)*	47.8 (43.6)*	5.5	-	2
Cyprus	2.3	4.1	72.0	5.7	April 2004	1
Hungary	4.1	-6.5 (-5.4)*	60.5 (57.4)*	6.8	-	0 (1)*

Source: New Cronos and Eurostat autumn 2005 fiscal notifications.

** Deficit/debt calculated by deducting the costs of the pension reform.*

1. Price stability

The aim of the Maastricht criterion on price stability is to allow only those countries to enter the euro area which have an economic environment that allows for the maintenance of low inflation as required by price stability over the longer term as well. In the last five years, this criterion fluctuated between 2-3.5 per cent. It currently stands at approximately 2.5 per cent.

Box 1-1 The criterion on price stability

The technical definition of price stability in the Maastricht Treaty stipulates that inflation in the reference period in a country which intends to join may not exceed the average inflation +1.5 per cent age points of the three EU Member States with the lowest rates of inflation. Both for Member States and countries wishing to join, the basis of the examination is the reference period average of the annual HICP. It is important to underline that since May 2004 inflation in all the 25 EU Member States must be taken into account in calculating the criterion. However, "outliers" must be disregarded. Accordingly, in its 2004 Convergence Report the European Central Bank did not take the inflation figures for Lithuania into account, with the justification that the negative index was the result of specific factors.

There are only minor differences between the harmonised and the Hungarian methodologies of consumer price index calculations: as opposed to the Hungarian methodology, some items are not included in the harmonised index, and the weights of individual items are different. Accordingly, the historic difference between the two types of annual index values in the last five years was not more than 0.1-0.2 percentage points. The HICP in Europe is still being developed: taking into account the price of owner occupied housing and the development of corrections necessary due to quality changes in individual items are on the agenda.

The majority of the 10 new EU Member States fulfil the Maastricht inflation criterion or will fulfil it in the near future[5]. However, in most of the countries under review maintaining the low price index that has been achieved may pose a challenge for several reasons. In our projection, inflation in Hungary will most probably be somewhat higher than the Maastricht criterion over the longer term (in 2007), i.e. further disinflation will presumably be needed for the adoption of the euro, which may require additional economic policy efforts.

[5] Unless otherwise indicated, in this Chapter the rate of inflation is characterised by the 12-month moving average of the annual index, as the Maastricht criterion for the rate of inflation is also determined according to this methodology.

1. 1. Review of new Member States

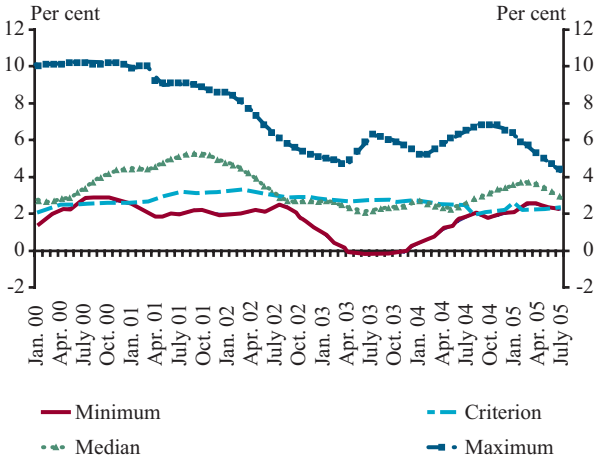
Of the ten new Member States, at present three (Cyprus, the Czech Republic and Malta) fulfil the Maastricht inflation criterion. Nevertheless, if the last annual index or market analysts' projections for 2006 are taken as a basis instead of the 12-month moving averages, it can be established that in the coming one and a half years most of the countries under review will probably fulfil the criterion, and in all likelihood Latvia will be the only exception. It is to be noted that most of the countries under review already met the criterion between mid-2002 and mid-2004. In Hungary, the rapid (and presumably temporary) convergence expected for the near future will mostly be caused by the reduction in indirect taxes next year.

In the last five years the convergence of inflation in the individual new EU Member States has increased. This is partly attributable to the fact that in most of these countries transition to market economy and accession to the EU induced similar economic policy and macroeconomic changes. Moreover, these countries were exposed to common effects as well, e.g. in the past years the low rate of increase in international industrial goods prices, which was presumably attributable mainly to global competition, may have been a common disinflation factor. In spite of all this, the inflation histories of the countries under review are still different: three countries (Hungary, Slovakia and Slovenia) have never had inflation below the criterion, while two (Lithuania and Malta) have met the criterion for the best part of the period under review.

Chart 1-1

Inflation path of the group of new EU Member States and the Maastricht inflation criterion

(12-month moving average of annual indices)



Cross-sectional chart showing the whole country group's inflation at a given moment. Trimmed sample, i.e. for each month the highest and the lowest inflation figures were excluded from the calculation. Source of original data: Eurostat.

In the last five years, despite growing raw material prices, the international inflation environment as a whole has contributed to the new EU Member States' disinflation policy. The long-term beneficiaries of the current low inflation may be those countries which can utilise this period to fix expectations at a steadily low level and to underpin the credibility of anti-inflation policy.[6] The precondition for sustaining a low rate of inflation is a rate of wage growth which is in conformity with the lower-inflation environment. According to the latest data (2004) in most new Member States no inflation risk of labour-cost origin can be seen, at least as far as developments in real unit wages are concerned. In certain countries, however, e.g. in Latvia and Lithuania, growth in nominal wages exceeds the

[6] In recent years, lower inflation was enhanced, for example, by the appreciation of the euro vis-à-vis the dollar, strengthening international competition, appreciation of the exchange rate against the euro in some countries (supported by favourable sentiment among foreign investors) and the decline in raw food prices in certain periods.

Table 1-1

Some characteristics of the inflation paths and monetary systems of the new EU Member States

	12-month moving average in 2000–2005 July*				HICP in July 2005	Forecast for average HICP in 2006	Exchange rate regimes (before ERM II)	ERM II. member	IT	Long-term inflation target
	Min.	Max.	Median	July 2005						
Cyprus	1.4	4.9	2.6	2.3	1.3	2.2	peg (with narrow de facto band)	Yes		
Czech Rep.	-0.2	4.6	2.3	1.9	1.4	2.4	managed floath		Yes	3 percent from 2006
Estonia	1.0	5.9	3.4	4.1	3.9	2.9	currency board	Yes		
Hungary	4.5	10.3	6.7	4.7	3.6	2.3	peg (wide band, +/- 15%)		Yes	3 percent from 2006
Lithuania	-1.1	2.7	0.7	2.7	1.9	2.1	currency board	Yes		
Latvia	1.6	7.0	2.7	7.0	6.3	4.5	narrow peg	Yes		
Malta	1.9	3.5	2.5	2.3	1.7	-	narrow peg	Yes		
Poland	0.6	10.2	3.8	3.5	1.5	2.1	floathing		Yes	2.5 percent till ERM II. membership
Slovenia	2.9	9.1	7.2	2.9	2.0	2.4	managed floath (de facto: crawling peg)	Yes		
Slovakia	3.5	15.0	7.6	4.0	2.0	3.0	managed floath		Yes	Under 2 percent for the end of 2007 and 2008
HICP-criterion	1.9	3.3	2.7	2.3	-	-	-		-	-

Source of original data: Eurostat and the September survey of Consensus Economics for the projection.

** Columns illustrate the developments in inflation in individual countries in the period between 2000 and 2005.*

Table 1-2

Developments in wages and inflation (annual change)

		2000	2001	2002	2003	2004
Nominal wages	Euro area	2.6	2.8	2.7	2.6	2.1
	EU-10	9.0	7.8	6.5	6.6	7.3
Inflation	Euro area	2.1	2.4	2.3	2.1	2.1
	EU-10	6.1	4.9	3.1	2.9	3.9
Productivity	Euro area	1.3	0.3	0.4	0.4	1.4
	EU-10	5.1	2.9	3.0	3.2	4.6
Real unit wages	Euro area	-0.9	0.2	0.0	0.1	-1.4
	EU-10	-2.3	-0.1	0.3	0.6	-1.4

Source: AMECO database and own estimates based thereon.

level justifiable by the increase in productivity, which may be a source of inflation risk in the future.

The monetary systems and disinflation strategies of the countries under review can be divided into two groups. One of them is constituted by the Visegrád countries (the Czech Republic, Poland, Hungary and Slovakia), which apply an inflation targeting system with a floating exchange rate or a fixed exchange rate with a wide band. The other group comprises those countries which closely manage the exchange rate, with two of these countries (Estonia and Lithuania) having introduced a currency board.

Fixing the nominal exchange rate strongly limits the inflation-management scope of action in monetary policy. Therefore, reducing the inflationary pressure from a possible overheating of the economy is mainly a fiscal policy task. However, this may be problematic, as the budgets in most of these countries show either a surplus or only a modest deficit. Presently, this problem is causing significant inflationary pressure in Latvia, where domestic demand has become quite dynamic (e.g. in the last one year retail sales grew by 10-30 per cent), and wage growth breaking away from the increase in productivity also contributed to this. There are no unambiguous signs of overheating in the other countries. However, fulfilment of the inflation criterion may be hindered by a presumed steadily higher growth rate of productivity in these countries than in the developed countries, coupled with the gradual equalisation of prices and wages (expressed in the common currency).[7] With a fixed exchange rate, during the catching-up process higher inflation may develop even if the economy is not overheated. Consequently, meeting the Maastricht inflation criterion is a special challenge for these countries.

The problem of higher equilibrium inflation may also arise in countries pursuing inflation targeting monetary policy. Nevertheless, the tolerance bands around the target values may provide some scope for action in monetary policies, and thus it will be possible to meet the criterion without a *de jure* adjustment of the target value.

Poland and Hungary are trying to solve the potential conflict between the constant target and to meet the inflation criterion by automatically revising the target designated for the given period on entering ERM II. Monetary policy in Slovakia, which switched over to inflation targeting as recently as January 2005, unlike the aforementioned three countries, has subordinated its targets completely to meeting the Maastricht con-

Table 1-3

Medium-term inflation targets in the region

	Continuous target (%)	Tolerance band (%)	Duration/Revision
Czech Republic	3	+/- 1	from 2006 until the introduction of the euro
Poland	2.5	+/- 1	from 2004 until ERM II entry or until the expiry of the MPC's mandate
Hungary	3	+/- 1	from 2007 for 3 years or until ERM II entry
Slovakia	< 2	-	2007-2008

[7] For a detailed estimation of a possible inflationary pressure stemming from the convergence process, together with a regional outlook, see *MNB Working Paper* 2002/5 *On the Estimated Size of the Balassa-Samuelson Effect in CEE-5 Countries*, edited by Mihály András Kovács.

vergence criterion. In the event of attaining the below 2 per cent inflation (HICP) targeted for 2007 and 2008, the inflation criterion will most probably be met.

Of the four countries, only in Slovakia is it evident that the monetary policy strategy has been formulated in accordance with ERM II membership in the near future and adoption of the euro before 2010. In the other three countries' monetary policy, early ERM II membership and adoption of the euro before 2010 are options than rather strategic targets.

1. 2. Hungary and the price stability criterion

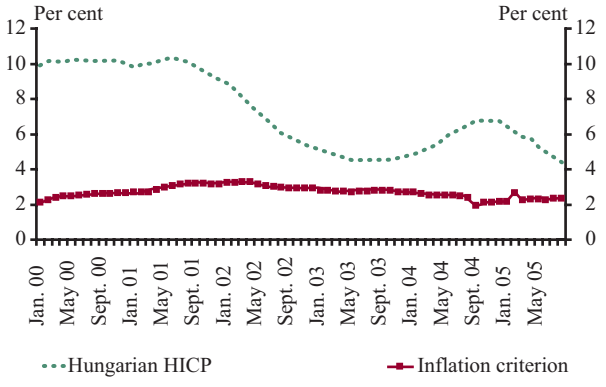
Over the last five years Hungary's inflation rate has converged significantly to the Maastricht criterion, but this can still be regarded as fragile; it cannot be said that the economy is already characterised by price stability.

From over 30 per cent in the mid-1990s, inflation declined to around 10 per cent by the end of the decade, but then the downward trend came to a halt. The main underlying reason was the increase in international raw material prices, which led to general inflationary pressure. This was also reflected in core inflation, which captures the lasting trends in inflation, and in the increase in the domestic real exchange rate.[8] One of the underlying reasons may have been that economic agents' expectations with regard to inflation and wages remained unchanged, and the monetary policy pursued and the crawling peg exchange rate regime could not anchor them at an effectively low level.

Disinflation commenced again in mid-2001, in parallel with the termination of the crawling peg regime, appreciation of the forint and the introduction of inflation targeting. Disinflation was especially dynamic in products competing with foreign ones. The decline in the price index of market services was also strong in 2001, but then it practically failed to continue to fall. There may have been several underlying factors. On the one hand, on the supply/cost side, the labour market only adjusted to the lower-inflation environment slowly and gradually, due in part to the substantial minimum wage increases in 2001 and 2002 and the dynamic growth in the number and wages of public sector employees. On the other hand, in this context the demand side was also inflationary, enhanced by the relaxation of the conditions of the housing subsidy scheme and the liquidity constraints of households in general. As a result of all these factors, the domestic real exchange rate did not decline in a sustained manner, and domestic inflationary pressure only abated slowly, i.e. nominal adjustment to lower inflation was slow in general.

Chart 1-2

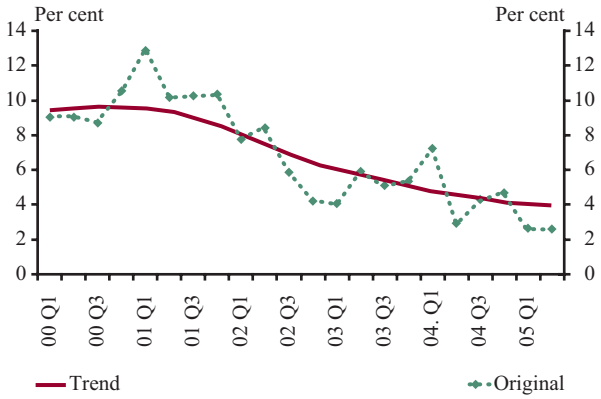
Inflation in Hungary and the price stability criterion
(12-month moving average of annual indices)



Source: Eurostat.

Chart 1-3

Nominal unit labour cost in the private sector
(annual change)



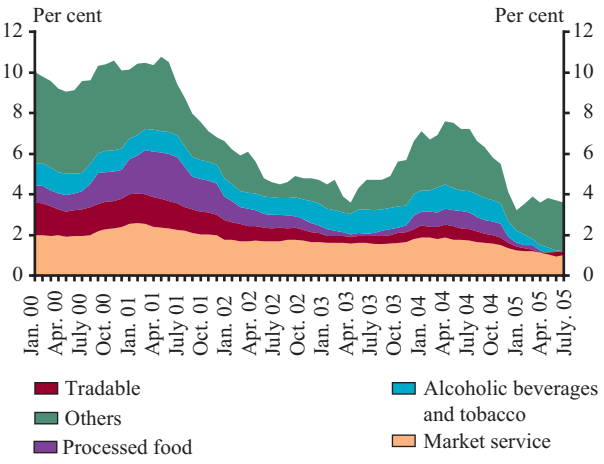
Source: CSO data and own estimate based on such.
The trend was calculated with HP filter; λ = 100.

[8] The domestic real exchange rate is the difference between the inflation rates of industrial products and market services.

Chart 1-4

Contribution of individual items to the consumer price index

(annual change)

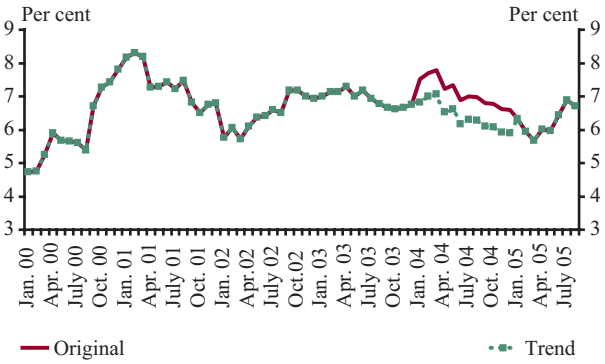


Source: MNB estimate based on CSO data.

Chart 1-5

Developments in the domestic real exchange rate

(on the basis of annual changes)



Source: MNB estimate based on CSO data.
Trend: Excluding the effect of the VAT increase in 2004.

Due to temporary supply shocks, from mid-2003 inflation rose again for a year. Factors generating higher inflation included the increase in indirect taxes and energy prices and the introduction of new taxes. In addition, the temporary depreciation of the exchange rate also had a cost-side inflation effect.

Then, however, due to several supply-side and demand-side factors, inflation began to decline again, and is now fluctuating within a band of 3.5-4.0 per cent, with core inflation remaining below 2 per cent for a longer time. The greatest disinflation effect is attributed to the strengthening of import competition, in which the stable forint exchange rate, the low price increases of imported goods and the general competition-boosting effect of joining the EU may play a role. Moreover, consumption growth has also been subdued compared to previous years. Consequently, the prices of products competing with the rest of the world stabilised, or even fell in the past one year. At the same time, market services inflation remained around 6 per cent, which may mainly be attributable to the still high unit labour costs in the service sector and to inflation expectations.

Overall, it can be ascertained that following a 10-year disinflation path, inflation in Hungary has already come close to the Maastricht criterion, and it is projected to remain close to it over the longer term (in 2007) as well.[9] In the past years several factors, e.g. the appreciating exchange rate or the increasingly dynamic import competition contributed to the decline in the rate of inflation, and offset the inflationary pressure of domestic origin caused by fiscal policy (e.g. the significant minimum wage growth, the increase in the number and wages of civil servants, increase in indirect taxes and the easing of the housing subsidy scheme). At the same time, several signs (e.g. strong inflation in market services, rapid growth in unit labour costs in the service sector and the high level of inflation expectations) indicate that nominal adjustment to the low-inflation environment has not been completed,

[9] In 2006, inflation is expected to sink below the Maastricht criterion, although it will only be a temporary phenomenon resulting from the announced VAT reduction.

i.e. domestic inflationary pressure has not ceased to exist.[10] This implies the risk that inflation may steadily exceed the Maastricht criterion if the factors which now contribute to disinflation become less favourable. As the demand effect of fiscal policy is not expected to decline in the near future (in 2006), monetary policy may retain its key role in fostering disinflation.

[10] The level of market services inflation, which is higher than the general rate of inflation, is partly attributable to the catching-up process of the Hungarian economy, i.e. a part of the still existing inflation differential between market services and products competing with the rest of the world can be considered as balanced, and it is expected to continue to exist for a longer time.

2. Long-term interest rates

While economic policy cannot directly influence long-term interest rates, the latter may reflect market participants' expectations regarding the trends and sustainability of macroeconomic developments and thus the credibility of a particular economic policy. It follows from the above that developments in long-term interest rates may provide significant information on the sustainability of nominal convergence, and more specifically, the markets' assessment of the sustainability of fiscal and inflation developments. In addition, developments in long-term interest rates can implicitly indicate the credibility of the envisaged date of euro adoption.

Box 2-1 The criterion of long-term interest rates

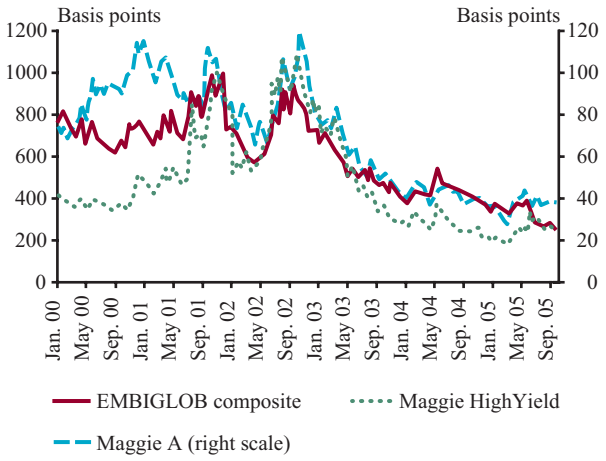
The Maastricht Treaty requires "the durability of convergence achieved by the Member State and [...] its participation in the Exchange Rate Mechanism of the European Monetary System being reflected in long-term interest rate levels". Consequently, the long-term interest rate criterion is fulfilled if "observed over a period of one year before the examination, a Member State has had an average nominal long-term interest rate that does not exceed by more than 2 percentage points that of, at most, the three best performing Member States in terms of price stability". In practice, interest rates are determined on the basis of long-term (10-year) government bonds. Average nominal long-term interest rates are computed as the arithmetic averages of the last 12-month period for which HICP data are available.

2. 1. An overview of the new Member States

In the period under review, long-term yields were essentially characterised by a decline in the new Member States, occasionally interrupted by major and relatively long upward adjustments. As capital markets are open and liberalised in the region, yields are strongly influenced by global financial developments. Global risk indicators reveal that investors' risk perception was highly volatile in 2001-2002, and declined abruptly between late 2002 to early 2004. Apart from a few short periods of adjustment, global risk indicators subsequently stabilised at historically low levels.

Chart 2-1

Global risk indicators

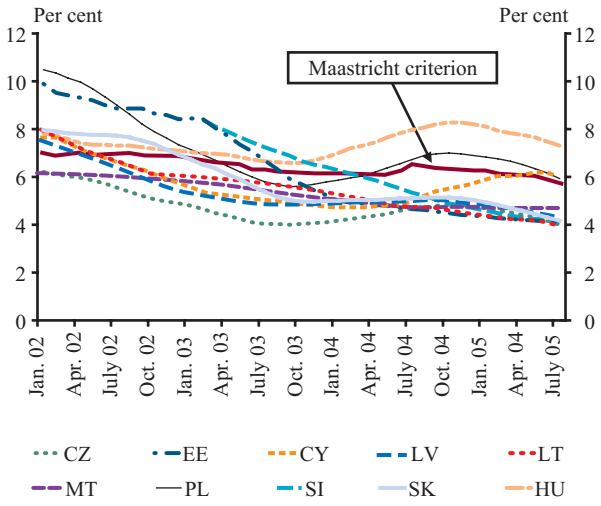


Source: JP Morgan.

In addition, yields also reflected the impacts of country-specific risks. Declining inflationary expectations caused by disinflation, the increasing credibility of monetary and exchange rate policies, the prospect and subsequent realisation of accession to the European Union, and the relative proximity of euro adoption all tended to reduce yields. In addition to these favourable trends, however, yield-raising factors also appeared in some countries, primarily related to fiscal problems, external imbalances, and the postponement of envisaged euro adoption dates. From 2003 H2 on, clear upward adjustments can be seen in Czech, Polish and Hungarian yields. In these three countries, yields only returned to their 2003 Q2 rates in July 2005.

Chart 2-2

12-month moving average of 10-year yields in the new Member States



** For Estonia: implied 10-year interest rates*

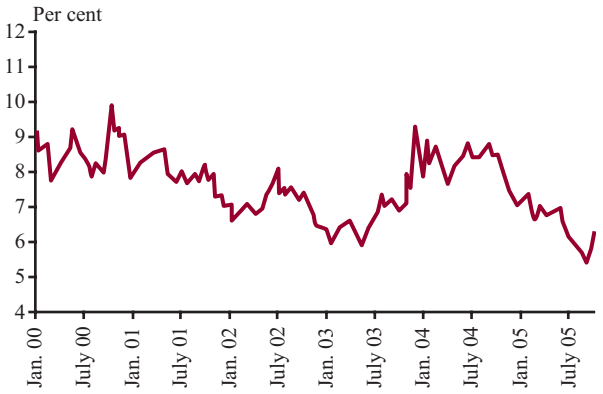
The 12-month moving averages of long-term interest rates fluctuated below the reference value in the majority of the new Member States – except Poland and Hungary – from the second half of 2003. While the difference is relatively small in Poland, long-term yields have persistently exceeded the reference value by 200 basis points in Hungary. In Cyprus, the moving average of long-term yields slightly exceeded the reference value from the second half of 2005.

2. 2. Long-term yields in Hungary

Hungary has had the highest long-term yield among the accession countries since mid-2003, suggesting that investors consider rapid adoption of the euro in Hungary the least likely, and reflecting the risks related to macroeconomic imbalances.

Chart 2-3

Benchmark yields on 10-year government securities



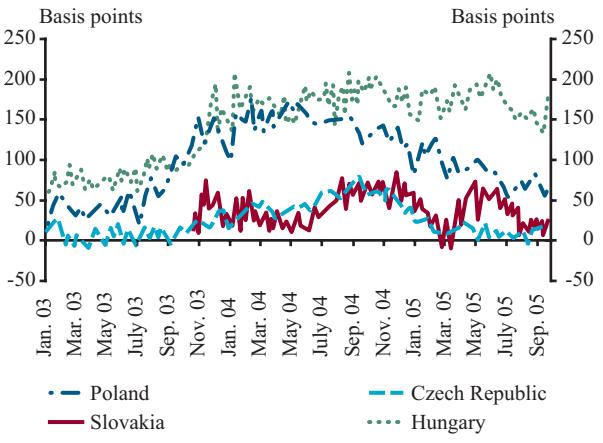
Between 2001 and mid-2003, long-terms yields declined constantly, with a single upward movement around the 2002 general elections. In this period inflation fell rapidly, and although the 2002 fiscal developments already foreshadowed the emergence of persistent imbalances, in the first half of 2003, market participants still considered quick adoption of the euro to be a credible objective.

Views changed in mid-2003, when 5-year and 10-year yields rose significantly by between 200 and 300 basis points. As during that period, global risk appetite constantly increased, and the rise in yields was clearly due to domestic factors, i.e. confidence in the Hungarian economic policy had been undermined, and more attention was being paid to fiscal problems. In June 2003, the Government announced 2008 as the first official target date for the adoption of the euro; this announcement, however, was unable to anchor longer-term interest expectations. As convergence failed to gain momentum in the course of 2004, the chances of rapid euro adoption vanished, and the target date was postponed to 2010. Just as in the other countries in the region, long-term yields declined again between late 2004 and September 2005, although the disparity to the yields in other countries remained unchanged. This suggests that global and regional effects (EU membership) prevailed during that period. Excess liquidity in the global economy and increasing risk appetite generated significant demand for higher risk emerging market instruments with relatively high yields. Beginning in mid-September 2005, a major upward adjustment took place. Fiscal developments and the information disclosed in connection with budgetary statistics increased the chance of further postponement of the euro adoption date planned for 2010.

Developments in premia on 5-year forint-to-euro forwards 5 years ahead reveal the government

Chart 2-4

5-year forward premia 5 years ahead in Central and Eastern Europe



securities market participants' assessment of the economic fundamentals and the confidence they have at a particular point in time in the adoption of the euro within 5 years. The following chart shows that in the period under review, market participants considered the adoption of the euro within 5 years far more likely in other countries of the region than in Hungary. The fact that the Hungarian premium has been fluctuating in a band of 150-200 basis points since late 2003 suggests that in this period both the fundamentals and the equilibrium were given a consistently unfavourable assessment, and that market participants considered the 2010 target date highly unlikely.

3. The exchange rate criterion

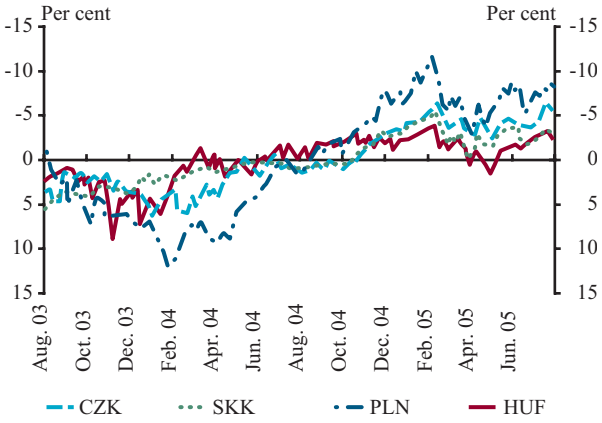
According to the Maastricht Treaty, the exchange rate stability criterion means that "a Member State has respected the normal fluctuation margins provided for the exchange rate mechanism of the European Monetary System without severe tensions for at least two years before the examination". In the course of assessing compliance with this requirement, the European partners have greater discretion, as the target is not quantified.

As none of the recently acceded Member States have been members of ERM II for two years, a formal assessment of compliance is impossible. For this reason, the following is only a discussion of the exchange rate fluctuations characteristic of these countries.

All six new Member States currently participating in ERM II (Estonia, Latvia, Lithuania, Malta, Cyprus and Slovenia) already maintained tightly fixed exchange rate systems before they joined the regime. After adjusting their systems to the requirements of ERM II (i.e. having made the euro the exclusive basket currency and fixed the central parity), they unilaterally undertook to retain these informal narrow bands. In most cases the authorities stabilised exchange rates at the earlier central parity, or in two cases on the strong side of the fluctuation band (one percentage point from the central parity in Latvia and two percentage points in Cyprus). Since their accession to the exchange rate mechanism, exchange rate fluctuation has been very low in these countries.

Chart 3-1

Exchange rates vis-à-vis the euro: non ERM II participating new Member States*



** Percentage deviation from the 2-year average euro exchange rate*

The officially-targeted euro adoption dates of the four new Member States which have not yet joined ERM II (Hungary, the Czech Republic, Poland and Slovakia) require accession to ERM II by 2006 (Slovakia) and 2007 (Poland and Hungary). In their case, exchange rate developments have been examined in comparison to a hypothetical central rate calculated on the basis of the daily exchange rate data of the past two years.[11] Although with different extents of fluctuation, all four currencies appreciated in a similar manner. The most tolerant to exchange rate fluctuations was the Polish central bank. In the Czech Republic and Slovakia, the authorities endeavoured to offset excessive strengthening by intervention and cutting the key interest rate. In Hungary's case strengthening was confined by the upper edge of the exchange rate band.

[11] A similar method is applied in the ECB's report on convergence.

3. 1. Exchange rate developments in Hungary

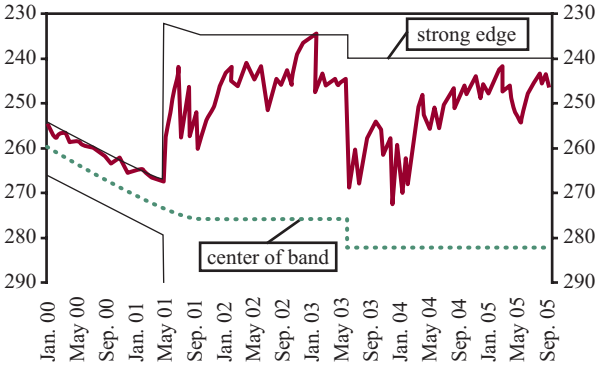
In May 2001, the earlier narrow band exchange rate system was replaced by a +/-15 per cent fluctuation band in Hungary. In September 2001, the crawling peg regime was terminated, and the central parity was fixed. With a fixed central parity, the exchange rate mechanism complies with the institutional requirements of ERM II, however, in practice the system currently applied in Hungary still differs significantly from ERM II. In the current Hungarian system the central parity has no prominent role, whereas in ERM II it is typically the nominal long-term anchor of the economy.

The factors underlying the fluctuations plotted in the chart below are mostly identical with those affecting long-term yields.

Over the entire period reviewed, the EUR/HUF exchange rate fluctuated in the stronger domain of the band. Clear strengthening can be observed between the widening of the fluctuation margins and January 2003, which culminated in a speculative attack on the upper edge of the band. After the attack, the exchange rate settled at a weaker level. After the central parity was devalued in June 2003, the central bank base rate rose considerably while the EUR/HUF exchange rate underwent a major weakening and its volatility increased. Following repeated strengthening from mid-2004, the exchange rate settled near the edge of the band, interrupted by a single temporary downward adjustment in the spring of 2005.

Chart 3-2

Forint-euro exchange rate in the fluctuation band (reverse scale)



4. Fiscal criteria

Both economic theory and experience confirm that one of the major pillars on which the long-term stability of a currency union rests is the coordination of fiscal policies. In EMU there is an elaborate institutional framework of fiscal coordination. An excessive deficit procedure (EDP) is launched against countries that fail to stay within that framework. EU Member States planning entry into EMU also participate in this process of co-ordination. Their primary responsibility is to demonstrate their fiscal suitability for full EMU participation, i.e. fulfilment of the Maastricht convergence criteria for fiscal policy in a sustainable manner.

Box 4-1 Convergence criteria for fiscal policy

The Treaty on the European Union stipulates the general government criterion as one of the conditions of the introduction of the euro. According to this criterion, Member States introducing the euro may not be subject to the excessive deficit procedure (EDP). Prevention of the emergence of an excessive deficit is not only a criterion for the introduction of the euro, it is also a statutory obligation of all Member States. An excessive deficit exists when the general government deficit in a Member State in a given year exceeds 3 per cent of GDP and when the ratio of government debt to GDP exceeds 60 per cent. The Treaty provides some room for judgment for the Council (ECOFIN) in its decision on the existence of the excessive deficit in the presence of certain circumstances. According to the revised Stability and Growth Pact, the general government balance in countries subject to an excess deficit procedure must improve by at least 0.5 per cent of GDP, excluding temporary and one-off effects.

The deficit targets in the medium-term economic programmes which Hungary submitted to the EU have failed to be implemented despite subsequent upward revisions. An excessive deficit procedure was implemented against Hungary simultaneously upon its accession to the EU on 1 May 2004, as according to the indicators available at that time, the general government deficit amounted to 5.9 per cent of GDP in 2003.[12] Given the high level of the deficit and the structural transformation underway in Hungary, the Council's recommendation was that the excessive deficit should not be corrected immediately, but rather at the pace set in the Convergence Programme.[13] As a first step of fiscal convergence, the Hungarian Government should take the measures envisaged for 2004 in the Convergence Programme. If necessary, effective action should also be taken so that the 2004 fiscal target could be reached. Furthermore, the Council recommended that the measures necessary to meet the 2005 target should also be taken, for the implementation of which the standard 4-month period was set.

When the deadline expired, the ECOFIN established that no successful measures had followed its recommendations.[14] Hungary is the only one of the six Member States subject to the excessive deficit procedure since their accession to the EU which, according to the Council's decision, has failed to comply with the July 2004 recommendations and departed from the adjustment path to which it had committed itself in the Convergence

[12] Since then, based on a notification in Spring 2005, it has risen to 7.1%, and on the basis of the autumn one, to 7.4%. The Council resolution stating the fact of the excessive deficit is available at http://ue.eu.int/ueDocs/cms_Data/docs/pressData/en/ecofin/81342.pdf#page=8

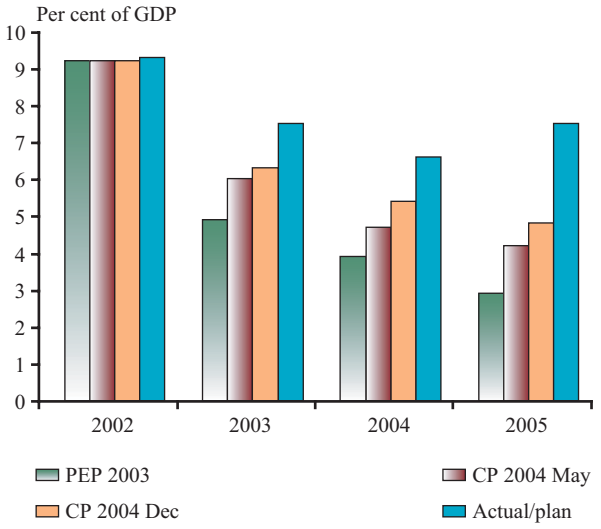
[13] The July 2004 recommendation is available at http://register.consilium.eu.int/pdf/en/04/st11/st11218.en04.pdf#page=2

[14] The December 2004 recommendation inthe context of EC Treaty Article 104/8 is available at http://register.consilium.eu.int/pdf/en/05/st05/st05523.en05.pdf#page=2

Programme. As Hungary has not introduced the euro yet, it cannot be put under tighter fiscal control. Nor can sanctions be imposed on it. However, the Council may decide on the suspension of its commitments to advance payments from the Cohesion Fund.[15]

Chart 4-1

Fiscal programmes and their fulfilment



Source: Pre-accession Programme (2003), Convergence Programmes (2004), Eurostat (2005).

For Member States in which no sanctions can be adopted, the excessive deficit procedure returns to a previous stage. If recommendations are not implemented, based on the Commission's proposal, the Council issues further recommendations for the relevant Member State. Therefore, the Council issued another recommendation for Hungary, in which it proposed that, following the higher deficit path specified in the Convergence Programme which had been updated in the meantime, Hungary should reduce its general government deficit below the reference value in a credible and sustainable manner.[16]

According to the decision by the ECOFIN Council published on 8 November 2005, the action taken by Hungary proved to be inadequate in response to the recommendation addressed to Hungary in spring 2005. The Council had recommended that the Hungarian Government take effective action in the medium-term framework set out in the Convergence Programme with regard to the timely correction of the excessive deficit. In contrast, the outcome of the 2005 deficit figure is seen well above target and, contrary to previous commitments, the Hungarian Government has not decided to take corrective action. Furthermore, the 2006 deficit target has been abandoned and even the new, looser target is unlikely to be met. The Council established that not only is the deviation from the agreed fiscal adjustment path inconsistent with the commitments undertaken by the Government, but it also jeopardises the necessary improvement in macroeconomic imbalances therefore increasing the vulnerability of the economy.

As Hungary's fiscal performance was the poorest during the period surveyed in terms of figures, relative to commitments and the expectations of the EU, the following section seeks to identify developments in trends as well as the reasons that underlie the continuous slippage. Based on our analysis, we find that the fundamental reason for the budgetary overshoots lies in the structure of the budget. Contrary to developments in other new Member States, there was a steady rise in wages and transfers, while tax revenues fell. Institutional solutions, e.g. optimistic planning and creative accounting, contributed to the persistence of structural problems and the fact that they could be temporarily hidden. Adjusted for the

[15] The Council regulation establishing a Cohesion Fund (1164/94) stipulates that only countries with a per capita GDP below 90% of the EU average (presently 13 countries) *having a programme leading to the fulfilment of the conditions of economic convergence as set out in Article 104 of the Treaty* are eligible for financial support from the Cohesion Fund.

[16] The March 2005 recommendations (in the context of EC Treaty Aticle104/7) are available at http://register.consilium.eu.int/pdf/en/05/st07/st07145.en05.pdf#page=2

impact of creative accounting, both the deficit and debt are higher and reveal that the fiscal situation is even more unfavourable than it looks at first sight.

Box 4-2 The budgetary accounting of the costs of the pension reform

In the co-ordination of fiscal policies at the EU level the issue was raised that data on general government deficit are not comparable due to the fact that some Member States recently introduced fully funded pension systems. These countries (Denmark, Poland and Sweden) adjusted the general government deficit indicator by the shortfall in revenues arising from the introduction of such a system, arguing that although the reform incurs costs in the short run, it improves fiscal sustainability.

The relevant Eurostat decision in March 2004 stipulates that, in accordance with the ESA 95 regulations, contributions paid into the second, fully funded pension pillar must be booked outside the general government,[17] but a press release by Eurostat on 23 September 2004 allows temporary reclassification of the second pillar pension contributions inside the general government before the 2007 fiscal notification. The Hungarian Government availed itself of this opportunity and presented general government deficit figures in its Convergence Programme updated in December 2004 and as part of its fiscal data provision obligation in a manner that did not reflect the adverse impact of the contributions paid into the second pillar on the fiscal balance. This derogation by Eurostat does not affect the excessive deficit procedure or the conditions for the introduction of the euro.

Table 4-1

The impact of the derogation of the accounting for the pension reform on general government indicators
(Per cent of GDP)

	2001	2002	2003	2004
Debt	1.4	1.7	2.3	3.1
Deficit	0.7	0.7	0.9	1.1

The implementation of the Stability and Growth Pact is based on the full ESA 95 deficit figure (as prescribed by the March 2004 Eurostat decision).[18] Nevertheless, the contributions paid in the second pension pillar must explicitly be taken into account in the launching and ending of the excessive deficit procedure if the general government deficit is only moderately over the 3 per cent reference value. Under the new regulation, the decision whether an excessive deficit exists should take into consideration the net costs of the pension reform in a degressive manner, i.e. to a 100, 80, 60, 40 and 20 per cent extent for 5 years starting from the first year after the reform or, in the case of earlier reforms, from 2005 onwards. This change makes the fulfilment of the Maastricht general government criteria for the introduction of the euro somewhat easier. At the same time, it also requires a gradual fiscal adjustment to the costs arising from the introduction of the second pillar.

[17] The Eurostat decision is available at http://www.cmfb.org/pdf/Decision_pension_funds-March_2004.pdf

[18] The revised Council regulation on speeding up and clarifying the excessive deficit procedure is available at http://europa.eu.int/eur-lex/lex/LexUriServ/site/en/oj/2005/l_174/l_17420050707en00050009.pdf

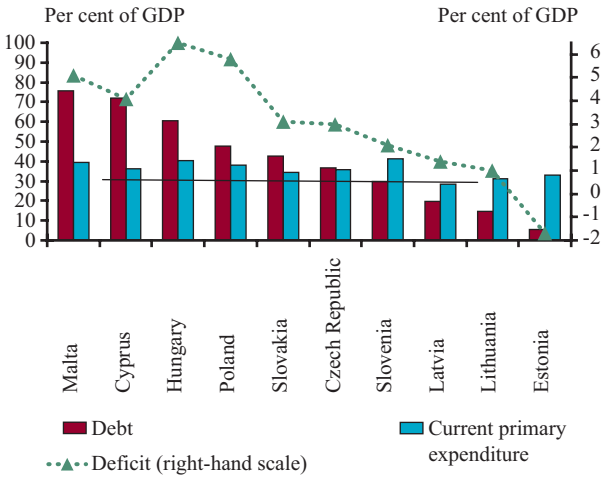
4. 1. An overview of the new Member States

It is safe to assume that, of the 8 CEE EU Member States, only Hungary failed to meet the two fiscal criteria in 2004, although this is not reflected in debt figures available now due to the temporary derogation granted because of the pension reform. In order to ensure comparability, our further analysis is based on unadjusted data (excluding the impact of the derogation) for both Poland and Hungary.

For the sake of comparison, we can identify two main groups of acceding countries.[19] The common characteristics of the four Visegrád countries (i.e. Hungary, Poland, Slovakia and the Czech Republic) are that their deficit is not below the benchmark value, government debt ranges between approximately 40 per cent to 60 per cent of GDP and current primary expenditure is between 35 per cent and 40 per cent. By contrast, in the Baltic States the government balance is much more favourable, government debt accounts for 5 per cent to 20 per cent of GDP and current primary expenditure is between 29 per cent to 33 per cent. In respect of deficit and debt, Slovenia is between these two groups. However, current primary expenditure exceeds 41 per cent of GDP in that country.

Chart 4-2

Debt, expenditure and deficit in new EU Member States



Source: Eurostat (2005).

Table 4-2

Debt ratios in Central European Member States
(per cent of GDP)

	2000	2001	2002	2003	2004
Estonia	4.7	4.7	5.8	6.0	5.5
Latvia	12.9	15.0	14.2	14.6	14.7
Lithuania	23.8	22.9	22.4	21.4	19.6
Slovenia	27.4	28.4	29.8	29.4	29.8
Czech Republic	18.2	26.3	29.8	36.8	36.8
Slovakia	49.9	49.2	43.7	43.1	42.5
Poland	36.8	38.5	43.7	48.7	47.8
Hungary	55.4	53.5	57.2	59.6	60.5

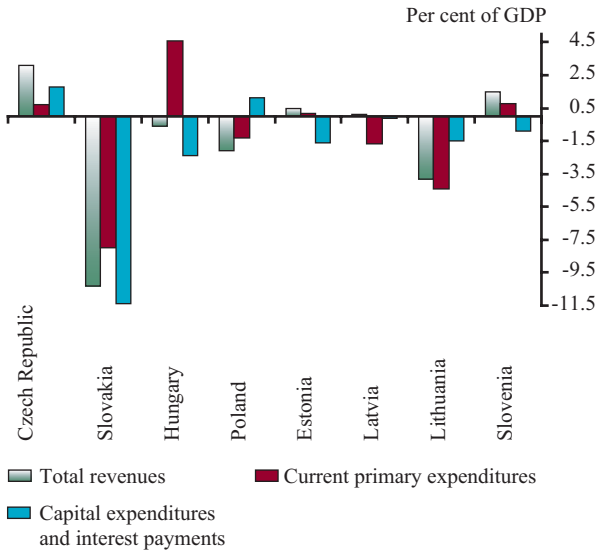
[19] For reasons of availability, our analysis does not include Malta and Cyprus.

In addition to the level, the growth dynamics of government debt also bears relevance to convergence. Of the Visegrád countries, only Slovakia was able to reduce its debt ratio, which, in contrast, rose sharply in the rest. Previous liabilities, accounted for in government debt in Hungary prior to the mid-1990s, were reflected in government debt with some delays in the Czech Republic. Government debt declined steadily in Hungary between 1994 and 2001. However, it grew by close to 7 percentage points between 2002 and 2004, yet again exceeding 60 per cent by end-2004, as the only country in the group.

In addition to the deficit and debt, differences in changes in revenue and expenditure in the individual countries between 2000 and 2004 are also worth examining. The first group includes Slovakia and Lithuania, where general government revenues and current primary expenditure were reduced roughly simultaneously. Of the countries that mainly reduced expenditure, Estonia and Latvia reduced on capital expenditure and current primary expenditure, respectively. The countries that increased revenues used them to reduce the deficit (Slovenia) or in part to reduce the deficit and in part to increase expenditure (Czech Republic). Revenues shrank in both Poland and Hungary. However, this was not offset on the expenditure side. On the contrary: expenditure grew. The difference between the two countries is that Poland increased capital expenditure while reducing current primary expenditure. In contrast, Hungary opted for just the opposite solution.

Chart 4-3

Revenue and expenditure developments 2000-2004



Source: Eurostat (2005).

4. 2. Hungary and the fiscal criteria

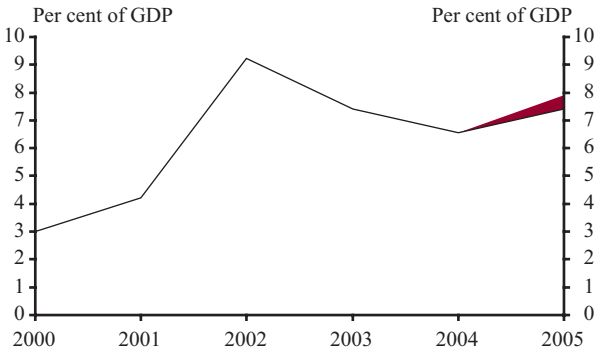
4. 2. 1. ESA deficit in Hungary in 2000-2005

The deficit complied with the relevant criterion in 2000. However, it has exceeded the reference value significantly ever since. There was an increase in the deficit in the year of the general elections. It seems to have declined in 2003 and 2004, then, according to the revised targets, it began increasing again. The following section attempts to separate to what extent the departure of the deficit from the targets and its persistently high level can be attributed to exogenous factors, more precisely to the impact of the business cycle and interest expenditures or rather to structural measures[20].

The business cycle did not contribute to the fiscal slippage. Although economic growth slowed down temporarily in 2001 and 2002, there was a higher-than-trend increase in the main tax bases (consumption and wages). As a result, this shift in the structure of growth, ceteris paribus, added to revenues and partially offset the fall in tax revenues which was attributable to structural tax policy measures. This also implies that, provided that new measures do not generate an above-the-trend rise in consumption, the positive cyclical component will return to a neutral state, i.e. this temporary component of tax revenues will disappear.

Chart 4-4

The ESA deficit in Hungary



Source: Eurostat (2005), MNB estimation for 2005.

Box 4-3 Various solutions to the cyclical adjustment of the fiscal deficit

There are several methods for calculating the cyclical position of the deficit. As a rule, the first step is to assess it, the essence of which is to determine the potential level of the relevant economic factors. The standpoints of the various international institutions on this issue are different.

The European Commission, OECD and the International Monetary Fund examine the impact of the aggregate output gap on general government, and this is the method that the Ministry of Finance also adopted in the Convergence Programme. As a rule, the output gap is determined through the provision of an estimate of the production function. Then, elasticities are used to calculate the cyclical position of the remaining relevant GDP factor (e.g. private sector wages, consumption and corporate profits, etc.).

Under the method adopted by ECB the composition of growth also affects the output gap. Therefore, a departure from a potential value (e.g., among other things, gaps in consumption, private wages, corporate profits and employment) is

[20] Naturally, neither the business cycle, nor interest rates can be considered to be entirely exogenous, since fiscal measures affect both economic growth and risk perception. The term "exogenous" is used for the sake of convenience and clarity in order that fiscal measures such as changes in tax rates and transfers can be dealt with conveniently.

defined for each component of growth by means of the Hodrick-Prescott filter.

An MNB study (P. Kiss and Vadas, 2004) put forward a proposal on the combination of the advantages of the two methods. As the aggregate output gap estimated on the basis of the production function is more substantiated theoretically, it was adopted as a starting point. However, the estimated gap was broken down into components. The upside to the method is that, contrary to that of ECB, the aggregate output gap is equal to the weighted sum of disaggregate gaps. Furthermore, breakdown results from the application of labour-to-capital ratios. There seem to be sizeable differences in the cyclical components estimated with various methods. The chart displays an estimate provided by the updated 2004 Convergence Programme for the cyclical impact as well as the MNB's own calculations. The aggregate output gap suggests dynamics that are exactly the opposite of what can be inferred when the composition effect is taken into account. The composition of tax bases led to the fact that the cyclical component was negligible in 2000, then became moderately negative in 2001. Entering the positive domain between 2002 and 2004, it improved the deficit by 0.3-0.4 per cent of GDP.

Chart 4-5

The impact of the business cycle on the deficit

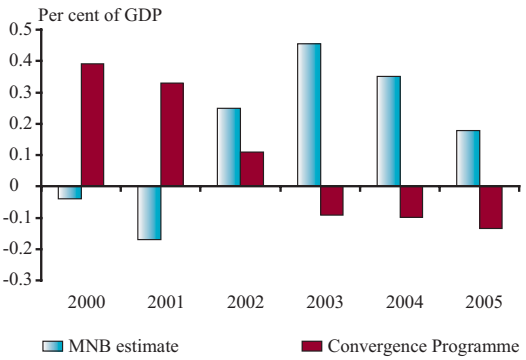
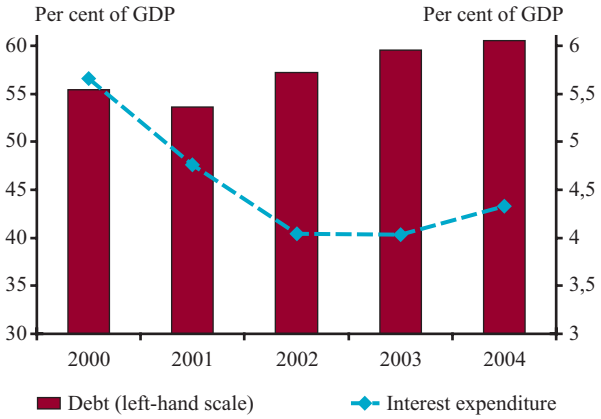


Chart 4-6

Government debt and interest expenditures



The chart reveals that interest expenditures played at best a marginal role in shaping the deficit. They had been falling prior to 2002, when the trend reversed. The increase in expenditures was attributable to a rise in debt, with implied interest paid on overall debt remaining unchanged. In reality, a rise over the entire yield curve due to the compromised credibility of economic policy in 2003 led to a more significant increase in financing costs that what the data reflect. However, it is masked by a rising share of FX financing.

Exogenous factors only slightly affect budgetary items and expenditure. It is safe to say that fiscal measures played a leading role. *Revenues* were mainly influenced by tax cuts. As a result, while they amounted to 44 to 44.5 per cent of GDP in 2000 and 2001, while the corresponding figure for the period between 2002 and 2004 was 43 to 43.5 per cent.

Simultaneously, expenditure rose despite the fact that capital expenditure had been cut. Primary current expenditure, which is a more permanent and less reducible component of expenditure, rose from 35 per cent in 2000 to a sustained level of 40 per cent. The main underlying reasons for this were wage raises in the public sector and rising house-

hold transfers at the time of the general elections. As regards the latter, within household transfers expenditure on pensions grew to an extent that exceeded what is governed by what is known as the rule of Swiss indexation, due to extra increases in 2001-2002, gradual introduction of the 13th month pension from 2003 and "rounding up" corrections of indexed pensions during the year.

Public sector wages are crucial among expenditure items, as they affect macroeconomic trends on both the demand (household income) and the supply (i.e. labour market) side. As a result of the increase in civil servants' pay in 2001 and even more importantly a 50 per cent increase in public servants' pay at end-2002 public sector wages rose to such an extent that it siphoned off labour. At the expense of the labour reserve available for the private sector, employment in general government started to grow significantly as from end-2002, reversing the trend of the preceding years. Since then there has been only partial adjustment.

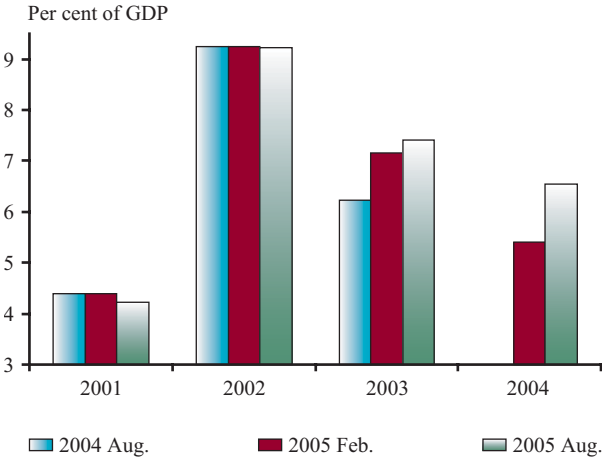
Why did the deficit depart from the target every year?

Based on the above, the high deficit can be mainly attributed to structural reasons, with fiscal measures affecting the budget as was expected. The departure from programmes and target figures was, for the most part, attributable to optimistic planning and deliberate creative accounting. Planning errors can no longer explain why the deficit always exceeds even the last official forecast. Some of the measures belong to the category of creative accounting (e.g. delay in VAT refunds). Others cannot become effective due to the absence of control (e.g. higher deficit at local governments).

The continuous methodological revisions of the EDP reports are related to creative accounting. Some are recorded with a retroactive manner, when costs should have been reflected in the deficit (e.g. in 2002). Methodological revisions were warranted because deficit figures in both 2003 and 2004 were significantly improved by the fact that the transfer of VAT returns had been artificially slowed down, which could not be adjusted with the method of what is known as time adjusted accrual. Likewise, not even a one-off saving due to postponement in the payment of the13th month salaries proved to be statistically acceptable.

Chart 4-7

Changes in deficit figures in the EDP reports



Box 4-4 Temporary budgetary items

The European Commission has addressed the issue of temporary impacts and made estimates for certain EU Member States for the period 2000 to 2004 (Public Finances in EMU, 2004). In the category of temporary impacts the Commission makes a distinction between "one-off measures" and "temporary factors" (e.g. disasters), the latter fall outside the

control of the government and are unrelated to the business cycle. Except for a list serving the purpose of illustration, no definition of the term "temporary" has been provided, however.

Disregarding temporary external factors, a study by OECD (Koen and van den Noord, 2005) focussed on and provided a brief outline of the deficit decreasing impacts of one-off measures in the EU-15 countries. In the category of one-off measures a distinction was made between transactions affecting the net worth of general government and those leaving it unaffected. The latter was labelled as "creative accounting". One example of this type of accounting is public private partnership (PPP). As the outsourcing of formerly government-financed capital investment in the form of PPP only reduces deficit in the first year, hardly affecting the government's payment obligations over a longer term, i.e. it does not improve net value, according to the definition provided in the study, it qualifies as creative accounting.

The difference between what is known as the augmented SNA indicator, an indicator defined in accordance with a method of analysis adopted by the MNB since 1998, and the ESA deficit lies in the fact that the former includes the items of creative accounting in the deficit immediately. Consistent with this, it excludes those financing-type transactions from the deficit that settle the obligations (e.g. debt assumption, capital expenditure and payment of instalments) arising from creative accounting. It includes capital investment projects based on government decisions that are not financed through general government funds. It also includes the deficit incurred by state-owned companies, such as MÁV (Hungarian Railways), which is only settled in the budget later. It uses a discretionary timing of certain types of revenues and expenditures for adjustment that exerts its economic impact at a different date rather than at the time of their recognition in the budget. This kind of adjustment is similar to an accrual-based adjustment. Overall, however, it differs from the way the ESA methodology is used in Hungary.

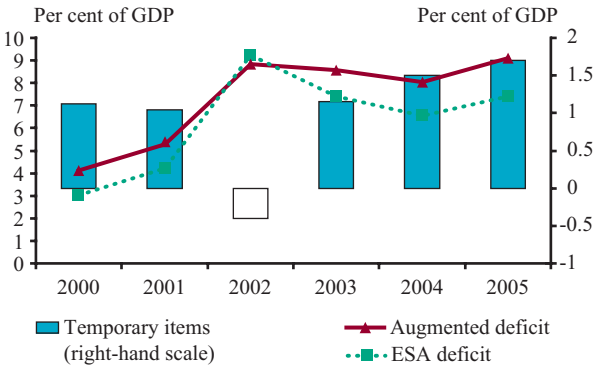
In order to obtain a clearer picture of fiscal trends, the MNB has been publishing an analysis indicator called the augmented deficit since 1998, which differs from the ESA presentation in that it filters the latter from the impact of the temporary items. Based on this, the underlying fiscal position reflecting more permanent impacts is even worse than what official data suggest.

The underlying reason for a less favourable situation is that in order that current expenditures (wages and transfers), increased on a permanent basis, can be offset, several such measures were taken which do not have any real impact. Thus, the reduction in capital expenditure was only seemingly achieved through the outsourcing of capital investment and deferred payments. Likewise, the reduction in current corporate subsidies does not wholly provide a true picture either, for some state-owned companies grow more indebted on an ongoing basis because of the "savings" of the cover for their losses by the budget.

The difference between the augmented deficit and the ESA deficit can be interpreted in two different ways. One is that subsequent ESA revisions of a

Chart 4-8

Difference between the augmented deficit indicator and the ESA deficit: impact of temporary items*



**A positive temporary impact means that it decreased the ESA deficit relative to the augmented one.*

statistical nature cannot be ruled out. The other is that if there is no revision, there will be expenditures to be recognised in accordance with the ESA approach at a later date. Thus, for instance, it is already obvious that there were such differences (e.g. public investment and corporate losses) in 2000 and 2001 that were included in the ESA deficit only later at the 2002 debt assumption, which temporarily reversed the sign of adjustments. Since then the direction of differences has reversed again, i.e. it improves the ESA deficit. This may, however, result in a future rise in the ESA deficit (see the section on future determinations).

4. 2. 2. Government debt

It is mainly the general government primary balance that affects government debt. In the case of the general government balance, the starting point is the cash-based approach, as the increase in debt is directly related to the financing of the deficit. In addition to the primary balance, the relationship between real interest rate on debt, changes in the real exchange rate and real growth also affect the debt ratio. Based on the fundamental relationship offered by models of debt dynamics, if the impact of real interest rate on debt and the changes in real exchange rate exceeds the rate of real growth, given a balanced primary position, the debt ratio may become explosive. By contrast, a real interest rate that falls below growth and a strengthening real exchange rate may lead to the economy "shuffling off" debt. In addition to the above factors, privatisation and other one-off items such as debt assumption may also influence indebtedness.

With regard to debt dynamics, the past ten years can be divided into two distinct phases. Debt ratio declined in the second half of the 1990s up to 2001. Then, after 2002 it picked up again. Real factors kept reducing the debt ratio throughout the period between 1995 and 2004. The debt ratio started to increase in 2002, which was attributable to the fact that the 2 to 4 per cent primary surplus became a 2 to 3 per cent deficit between 2002 and 2004.

A marked 28-percentage point fall in the debt-to-GDP ratio between 1995 and 1998 was followed by a more moderate, approximately 8-percentage

Table 4-3

Changes in and the factors influencing the debt ratio

	1999	2000	2001	2002	2003	2004
Change in public debt ratio (1+...+4)	-0.7	-5.5	-1.9	3.0	2.3	1.3
1. Primary deficit without debt assumptions	-2.7	-2.1	-1.5	2.8	2.1	2.4
2. Effects of dynamic components (a+b+c)	-0.1	-1.8	-3.1	-3.3	0.0	-2.0
a. real GDP growth	-2.5	-2.9	-2.1	-1.9	-1.7	-2.5
b. real interest rate	3.9	1.8	1.3	0.4	0.9	1.7
c. real exchange rate	-1.5	-0.7	-2.3	-1.7	0.8	-1.2
3. Other identified items (privatization, debt assumptions, etc)	0.1	0.3	0.0	3.6	-0.5	0.9
4. Other	2.0	-1.8	2.7	-0.2	0.7	-0.1

point decline between 1999 and 2001. The decline between 1999 and 2001 was attributable mainly to an approximately 6 per cent surplus on the primary budget balance over a period of 3 years as well as real factors that reduced debt to an increasing extent. Real interest rate on debt was high in 1999 due mainly to the tailing off of the impact of the crises in Russia and South-East Asia. Then, however, it started to exert an increasingly smaller influence. As a result of moderation in real interest rate and economic growth amounting to approximately 4.5 per cent, overall real interest and real growth led to a declining debt ratio. This was facilitated by the strengthening of the real exchange rate, which also reduced the debt ratio through the revaluation of the FX-denominated debt.

An approximately 2 per cent annual surplus on the primary balance during the three years preceding 2002 was followed by an average 2.5 per cent deficit, which led to a rise in the debt ratio. The impact of the reverse in the primary balance was further amplified by the budgetary assumption[21] of the debt accumulated by some companies engaged in quasi-fiscal activities (e.g. MÁV, BKV, NA Rt., ÁAK Rt. and GYSEV). The differential between the annual average 3.5 per cent economic growth and low real interest rates, which would otherwise reduce debt, was only partially able to offset the upward impact of the primary deficit, significant enough without assumptions, on debt. A strong nominal devaluation of the exchange rate of the forint in 2003 translated into devaluation on the level of the real exchange rate as well, which, contrary to trends during the period as a whole, increased debt. The combined effect of real factors between 2002 and 2004 was almost identical to that between 1999 and 2001, the difference being the primary balance, in other words effects of fiscal policy measures.

[21] A sudden rise in the debt ratio, attributable to one-off items, occurred in other Member States as well, an example of which is Malta, where the debt of a ship building factory was assumed in 2003. This contributed to the increase in the debt ratio by close to 10 percentage points.

5. Other factors of convergence

In addition to what is informally termed the "Maastricht criteria", the Maastricht Treaty also stipulates analysis of other indicators (e.g. market integration, the current account balance and wage costs) in order that the fulfilment of the convergence criteria needed for EMU participation can be established.[22] The indicators included in the category of other factors are not clearly defined. As a rule, they measure the depth of economic integration and the longer-term sustainability of the convergence which has already been achieved. Although these indicators have not played an independent role in the assessment of how convergence criteria are fulfilled, they have added a few details to the picture that can be painted on the basis of the quantified Maastricht criteria.

It would be a mistake to underestimate the importance of other factors for a number of reasons. One is that they are mandatory. Thus, if quantifiable factors fail to be met or their persistence cannot be established unequivocally, the other indicators may significantly impact decision on EMU participation.[23] Another is that their consideration is economically justified, as experience in EMU confirms that those countries that have had difficulty in meeting the convergence criteria or, in retrospect, have barely met them cannot utilise the benefits that come with EMU participation and must make significant adjustments within the monetary union. With monetary independence abandoned, economic policy (in particular, fiscal policy) must adjust to shocks. Inadequate convergence does not allow enough room for manoeuvre for flexible adjustment, which in turn means that even pro-cyclical consolidation incurring significant social costs may be necessary.

An analysis of the other factors reveals that the sectoral structure of the Hungarian economy has approximated to that of EU economies since the turn of the millennium. Foreign trade integration into EU markets has either increased or remained at its relatively high 2000 level. Real appreciation, which indicates a rise in relative prices and costs, has not hit corporate sector profitability significantly, with the share in export markets expanding dynamically since 2000. However, the current account deficit has been very high recently due to increased general government and household borrowing requirement. Along with rising net external debt, this carries the risk of the long-term unsustainability of the external equilibrium position.

[22] For the definition of other factors, see § 121 Article 121 EC Treaty. "…The reports of the Commission and the EMI shall also take account of the development of the ecu, the results of the integration of markets, the situation and development of the balances of payments on current account and an examination of the development in unit labour costs and other price indices."

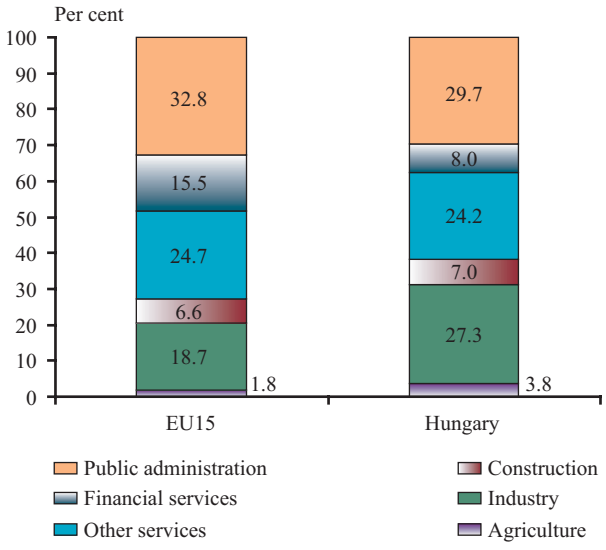
[23] Politicians who intended to slow down EMU expansion used to insist on the introduction of additional quantified convergence criteria to be met by the new Member States. Although this is an unlikely scenario, as it would entail the modification of the Treaty and violate the principle of equal treatment, those against expansion may hold the criteria against the new Member States.

5. 1. Economic structure and goods market integration

Analysing the costs and benefits of the introduction of the euro, an MNB study published in 2002 provided a detailed assessment of the real economic suitability of the Hungarian economy for euro area membership.[24] The study states that real economic convergence in a broader sense, i.e. the adjustment of the sectoral structure of the economy, the depth of foreign trade integration and the synchronisation of business cycles, is an important condition for reducing the exposure of a country to asymmetric shocks. Relying on data for the turn of the millennium, it proved that, in this sense, Hungary had reached the degree of integration into the euro area of the less developed countries which were already members. Except for the relatively large weight of certain specific industries in manufacturing, there were no significant differences in the sectoral structure of the economy. Based on qualitative (the weight of intra-industry trade, the penetration of markets with high value added) and quantitative indicators, foreign trade integration corresponded to that in Member

Chart 5-1

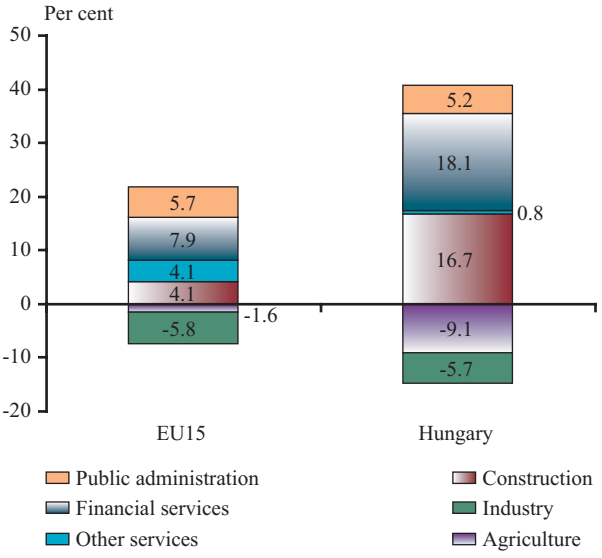
Sectoral weight as per number of employed in 2004



Source: Eurostat. Official NACE terms: 1. Agriculture, hunting and forestry, fishing 2. Industry (excluding construction) 3. Construction 4. Wholesale and retail trade, repair of motor vehicles and other household goods, hotels and restaurants, transport, storage and communication 5. Financial intermediation, real estate, renting and other business activities 5. Public administration and defence, compulsory social security, education, health and social care, other community, social and personal services, private households with persons in the employment of such households.

Chart 5-2

Changes in number of employed in a breakdown by sector (2000-2004)



Source: Eurostat. Official NACE terms: 1. Agriculture, hunting and forestry, fishing 2. Industry (excluding construction) 3. Construction 4. Wholesale and retail trade, repair of motor vehicles and other household goods, hotels and restaurants, transport, storage and communication 5. Financial intermediation, real estate, renting and other business activities 5. Public administration and defence, compulsory social security, education, health and social care, other community, social and personal services, private households with persons in the employment of such households.

[24] A. Csajbók and Á. Csermely, eds, "Adopting the euro in Hungary: expe ed costs, benefits and timing" *MNB Occasional Papers*, 2002/24.

States. Finally, business cycles in Hungary increasingly approximated those in Western Europe.[25] The following section complements these findings with the events since 2000.

As regards developments in the sectoral structure of the economy, there have been further signs of convergence in Hungary over the past five years.[26] The weight of agriculture, which is in inverse relationship with economic development, only slightly exceeded the EU-15 average in 2004. Based on the numbers of persons employed, this sector has seen the most marked fall in the past five years. Nevertheless, sectoral structure differs somewhat from what is common in the EU-15 countries. Compared to them, the weight of industry is more dominant, and the presence of financial (and other business) services is less pronounced. However, in this respect as well, there has been a re-arrangement better approximating to the EU-15 countries over the past five years: the importance of industry has declined, while the number of employed in the financial services sector have increased.

As far as foreign trade integration is concerned, Hungary remains one of the most open economies in the EU. Exports and imports of goods and services amounted to 135 per cent of GDP in 2004, on the basis of which Hungary was the eighth most open economy in the EU. At the same time, however, economic openness has increased only at a slower rate since the turn of the millennium.

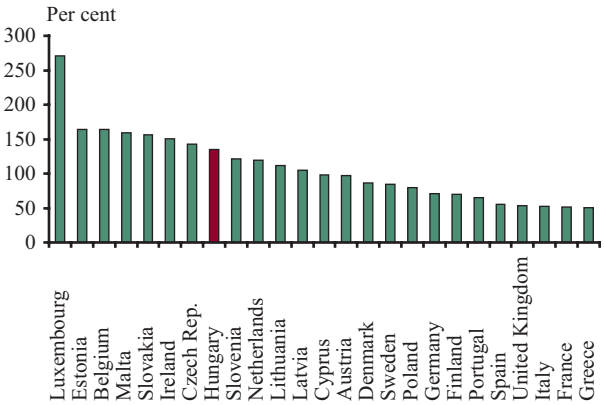
There have been only minor shifts in the product composition of exports. The underlying reason for such a minor shift is that goods with a high value added were dominant in exports from Hungary already at the turn of the millennium. Such goods have continued to gain ground to a certain extent in the past years, with the weight of machinery in export turnover currently exceeding 60 per cent. Processed products amount to 30 per cent of total exports, while goods with a low value added, such as food, raw materials and energy represent little share, which has further diminished since 2000.

As a result of significant progress in foreign trade integration, the structure of partner countries in export and import transactions did not change significantly during the period under review. Already at the turn of the century, 70-80 per cent of trade in goods involved the current EU-25 countries. Hungary's accession to the EU in 2004 only resulted in minor shifts in the intensity of trade with Member States, with the focus somewhat shifting from the EU-15 countries to new Member States. Increasing integration was only discernible in market segments of marginal importance (e.g. agricultural and food products).

Chart 5-3

Trade openness in EU Member States in 2004

[exports plus imports at current prices (per cent of GDP)]



Source: Eurostat. Total foreign trade of goods and services combined.

[25] Several studies provide evidence of the synchronisation of business cycles in Hungary with those in the euro area. Darvas and Szapáry (2004) claim that "Hungary, Poland and Slovenia have achieved a high degree of synchronization with the EMU for GDP, industrial production and exports. The other CEECs have achieved less or no synchronization." Business Cycle Synchronisation in the Enlarged EU: Co-movements in the New and Old Member States, *MNB Working Papers*, 2004/1. IMF calculations also confirm that the co-movement of economic growth in Hungary has been the most marked from among the 8 new CEE Member States over the past five years. IMF World Economic Outlook, September 2005.

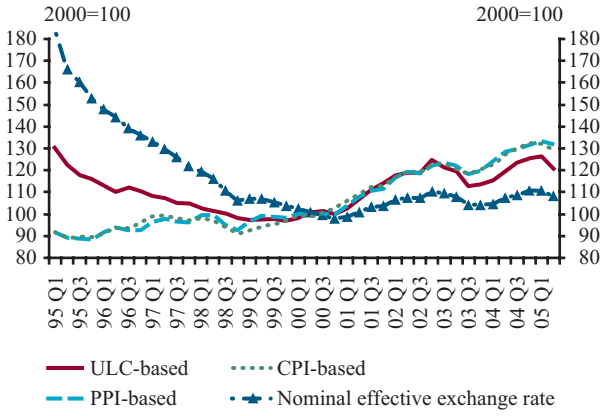
[26] This analysis examines the sectoral structure on the basis of the number of employed. The gross value added has led to similar conclusions.

5. 2. Indicators of price and cost competitiveness

Effective real exchange rate indicators, which are used the most frequently for measuring price and cost competitiveness, reveal that the price and cost competitiveness of the corporate sector has deteriorated significantly since 2000. There was a 20-30 per cent appreciation in both the price and labour cost-based effective real exchange rate between 2000 and 2004. Although the nominal effective exchange rate also appreciated simultaneously, real appreciation was, to a large degree, attributable to rises in relative prices and costs compared to competitors.

Chart 5-4

Real and nominal effective exchange rate indices in Hungary

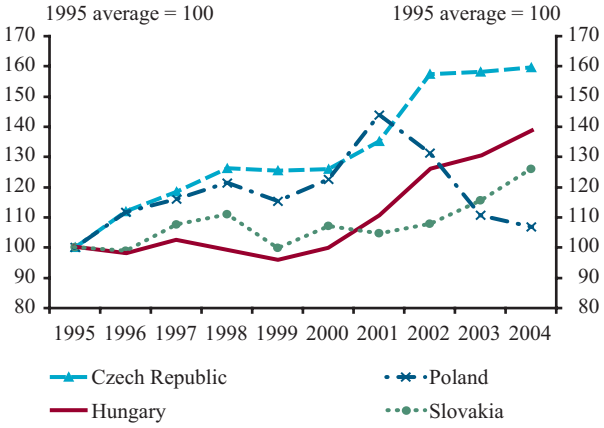


Source: MNB calculations. The selection and weighting of partner countries rest on their share in Hungarian export transactions. Rise in indices denotes appreciation. ULC: unit labour cost in manufacturing, CPI: consumer price index, PPI: producer price index.

Calculated by Eurostat, unit labour cost-based competitiveness indicators reveal that, of the Visegrád countries, Hungary's position has deteriorated the most since 2000. There has been marked real depreciation in Poland.[27] In the Czech Republic and Slovakia competitiveness has deteriorated to a lesser extent than in Hungary. If, however, in analysing relative competitiveness, we go as far back as 1995, Hungary's position is average compared to the four countries. The underlying reason for this is that, as a result of real depreciation in the second half of the 1990s, Hungary acquired a significant competitive edge over the other three countries.

Chart 5-5

International competitiveness of the Visegrád countries (ULC-based effective real exchange rate index)



Source: Eurostat. Increase denotes real appreciation, i.e. deteriorating competitiveness. ULC: unit labour cost in the whole economic.

The question then arises to what extent significant real appreciation entailed worsening competitiveness in the corporate sector and to what extent the corporate sector was able to adjust to such an appreciation. The latter is substantiated by the fact that, although real appreciation moved hand in hand with a rising current account deficit and heavier external borrowing, an analysis of the sectoral structure of the deficit revealed that the rise in the deficit was attributable to a rise in the combined borrowing requirement of the general gov-

[27] In Poland substantial (unit labour cost-based) real depreciation was mainly attributable, in addition to the nominal depreciation of the zloty/euro exchange rate between 2001 and 2004, to wage inflation, which fell behind increase in productivity. CPI and producer price-based real depreciation was more moderate and even reversed in 2004.

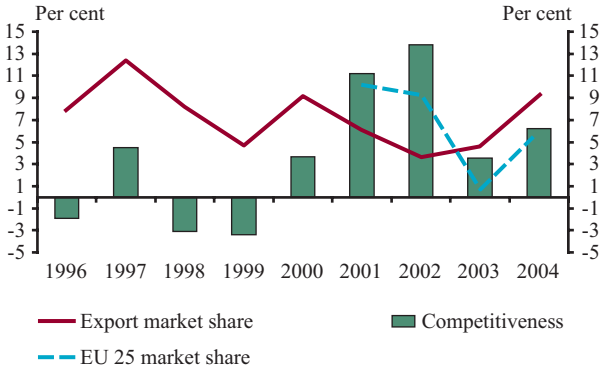
ernment and households rather than a deterioration in the corporate sector's position (for a detailed analysis of the current account balance, see below).

Successful corporate adjustment is further substantiated by the fact that there was no deterioration in corporate profitability due to real appreciation, and the export sector was more susceptible to the external business cycle.[28] Corporate adjustment materialised through the rapid replacement of relatively costly labour as a production factor with capital. Furthermore, the impact of real appreciation was partly offset by the fact that, due to nominal appreciation, imported input products, used in large amounts in manufacturing (in particular, in the export-driven segment) became cheaper.

Despite a deterioration in price and cost competitiveness, Hungary's market share in export markets expanded consistently, although its pace slowed down between 2001 and 2003. Based on both OECD and MNB calculations, the annual increase has been an average 5-6 per cent over the past 5 years, which corresponds to the growth rate in the other three Visegrád countries.[29] Hungary's accession to the EU led to the restructuring of export markets, i.e. its market share grew in less important markets (e.g. new EU Member States and non-EU countries)

Chart 5-6

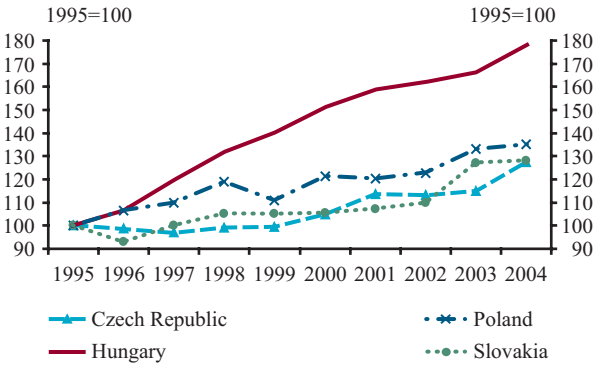
Changes in competitiveness and export market share (percentage changes on a year earlier)



Source: ULC-based competitiveness indicator on the basis of Eurostat calculations. Market share based on MNB calculations with respect to all major export markets. The market share of the EU 25 countries only bears relevance to the EU market and does not weight partner countries in accordance with the country structure of exports.

Chart 5-7

Export market shares of the individual Visegrád countries



Source: OECD. External market demand is made up of import volumes weighted on the basis of share in exports by exporting countries. Weights calculated from trade in goods and services in 2000.

[28] See: Mihály András Kovács, "Exchange rate effect in the Hungarian economy: Lessons from the 1995 stabilization and some current issues" *MNB Background Studies*, 2005/6. (currently available only in Hungarian, forthcoming in English).

[29] For a detailed treatment of the various indicators of export market share, see "Competitiveness and the Export Performance of the Euro Area" by a task force of the MPC of the ESCB, *ECB Occasional Paper Series*, No. 30, Box 1.

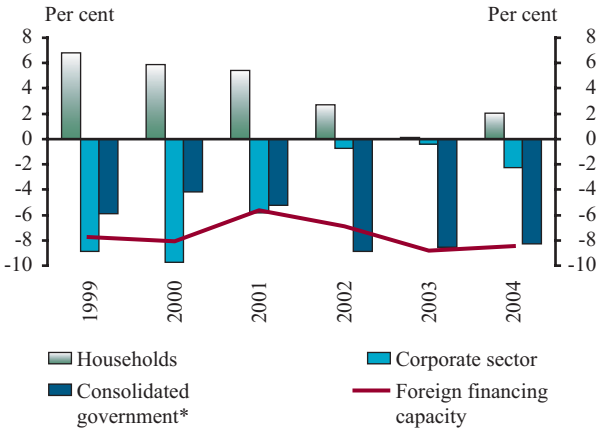
5. 3. Sustainability of current account deficit

Although there is no quantified criterion for the current account deficit, in evaluating the process of convergence, both the Commission and the market keep track of developments in external equilibrium. The current account deficit and the external financing requirement fluctuated at a high level, amounting to 8-9 per cent of GDP between 2003 and 2004. Meanwhile, GDP-proportionate net external debt is rising, i.e. external equilibrium indicators suggest that risks to the long-term sustainability of economic processes remain significant. The high external financing requirement also poses a risk to exchange rate stability. The reason for this is that, if it is the market that induces the adjustment of the current account deficit, it entails marked exchange rate fluctuations. Accordingly, a pre-condition for ERM II entry would be a major shift towards the sustainability of the current account.

The combined deficit of the current account and the capital accounts, i.e. the external financing requirement, has been continuously high (over 6 per cent of GDP) since 1998. However, the source of country's external financing requirement has changed substantially since 2002. The net general government[30] financing requirement, amounting to 4 to 6 per cent of GDP, was covered by households' net financial savings between 1999 and 2001. The external financing requirement was attributable to the net borrowing requirement of the corporate sector, which was also reflected in the financing structure of the current account deficit. As the borrowing requirement of the corporate sector was nearly equal to the net non-debt generating capital inflow, the external financing requirement of the economy as a whole was covered by non-debt generating funds. Accordingly, the net external debt rate amounted to 15 to 18 per cent of GDP at the turn of the millennium, i.e. despite heavy external borrowing requirement the country's indebtedness did not rise.

Chart 5-8

External financing capacity and the financing position of the individual sectors
(as a proportion of GDP)



** Consolidated general government includes the central budget, local governments, ÁPV Rt., the government's quasi-fiscal activity, PPP-projects and the MNB.*

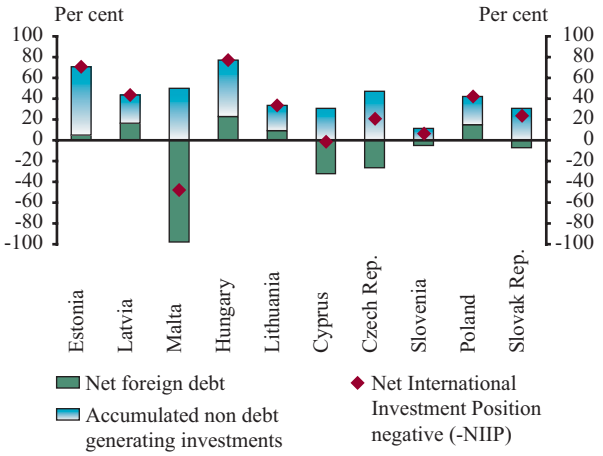
The general government borrowing requirement exceeded 8 per cent of GDP between 2002 and 2004, which households' low net savings were unable to offset. The combined borrowing requirement of the two sectors exceeded 6 per cent of GDP. In addition to a decline in GDP-proportionate fixed investment, the corporate sector borrowing requirement and, hence the inclusion of non-debt generating funds, also decreased markedly. As a result of the above trends, GDP-proportionate net external debt rose by 13 percentage points in a span of 3.5 years, amounting to 28.6 per cent of GDP at the end of 2005 H1.

[30] Public sector financing requirement means the augmented SNA deficit of general government consolidated with the MNB.

Chart 5-9

Net global investment of the new EU member states in 2003

(per cent of GDP)*

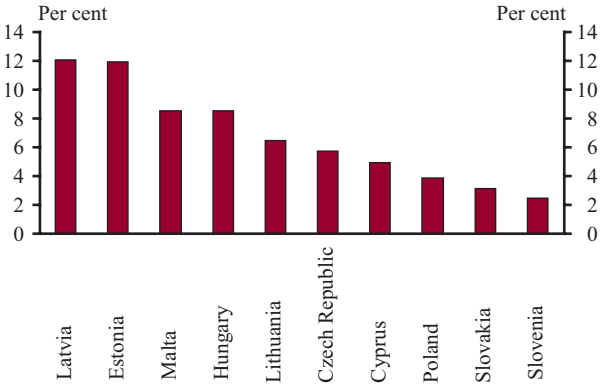


** Source: IFS database, MNB Balance of Payments Statistics. In the case of Slovenia 2002 data.*

As a consequence of the combined current and capital account deficit, net liabilities[31] vis-à-vis non-residents increased continuously, amounting to 86.4 per cent of GDP by end-2004, the highest level among the new EU Member States. Yet, the rise in net liabilities alone does not necessarily imply an unsustainable external equilibrium. One of the reasons for this that converging countries with economies characteristically lacking in funds need external capital. Given the high proportion of non-resident ownership, considerable reinvested earnings and new FDI are mainly related to corporate fixed capital formation, which – provided that it leads to a rapid expansion in exports – does not carry any risk to sustainability. However, it is much less favourable in respect of sustainability when the external financing requirement is related to high general government borrowing requirement rather than corporate fixed investment. The latter was the case in Hungary between 2002 and 2004, when the current account deficit was predominantly financed by debt generating funds. Moreover, net external debt increased while the outlook for export growth did not improve.

Chart 5-10

GDP-proportionate external financing requirement of the new EU Member States in 2004



Source: Eurostat.

As the external imbalance is linked to the general government borrowing requirement, any tangible, sustainable decline in the external financing requirement rests on fiscal adjustment. Taking into consideration the envisaged real interest rate burdens and the fact that real growth reduces the debt ratio and provided that the nominal exchange rate remains unchanged, the combined borrowing requirement of general government and households should steadily fall by approximately 3.5 percentage points of GDP in order for the net external debt ratio to stop increasing.

[31] In Hungary due to a continuous current account deficit, net international investment position, i.e. net assets vis-à-vis non-residents, is (are) negative, which means that liabilities exceed assets vis-à-vis non-residents.

6. Special topics

6. 1. Outlook for fiscal convergence

In order to meet the 2010 target date for euro area accession a total budget adjustment with an impact of more than 5.5 per cent of GDP must be performed by 2008, even under the best case overall scenario due to the currently quantifiable deficit increasing trends primarily associated with the tax cut programme. Furthermore, if the motorway construction expenditures falling outside the budget according to current plans are to be included in the ESA deficit and if the settlement of debts by state-owned enterprises conducting quasi-fiscal activities becomes necessary, the demand for an appropriate adjustment will be increased to about 7 per cent.

Deficit is unlikely to decline in 2006

The draft budget bill submitted to Parliament contains a 6.6 per cent ESA balance target for 2006 representing a significant upward adjustment compared to the deficit target set in the convergence programme (4.1 per cent).[32]

Next year's budget excludes the full costs of motorway construction, therefore the target cannot be compared to the figures of 2005: neither to the target of 7.4 per cent, nor to the expected deficit of 7.9 per cent. This also appears to be a 1-1.2 per cent methodological risk, as Eurostat's view on the PPP solution planned by the government is not clear. Furthermore, in the light of plans and past experiences an implementation risk of another 1.2 per cent of GDP can be foreseen, therefore the deficit can be around 7.8-8.9 per cent of GDP.

On the revenue side, the fact that measures affect a number of tax categories simultaneously and that even the minimum wage adjustment makes processes hard to plan results in greater risk than seen in previous years. The 2006 budget bill plans to counterbalance the significant deficit increasing effect of the "100 steps programme" with ambitious expenditure cuts, in addition to "outsourcing" a part of motorway construction.

Due to the limited amount of information available it is difficult to assess the justification for the appropriations of budgetary units and chapters, as the submitted draft budget bill does not specify if the planned expenditure cuts are to be accompanied by the termination of government duties and/or a perceivable rationalisation of services provided by the government. We also foresee a problem in that the plan for the amount of wages is nominally lower than the wage expenditures planned for 2005 while a plan for a 4-5 per cent wage increase was announced and only a insignificant amount of provisions are earmarked for public sector layoffs. Finally, the draft bill does not take into account the usual course of the deficit cycles of local government authorities: adjustment is also required from local governments by reducing their intragovernmental transfers.

The accumulated losses of certain state owned enterprises performing quasi-fiscal activities (e.g. Hungarian Railways [MÁV] and the Budapest Public Transport Corporation [BKV] providing public transport services) have not been included in the deficit for several years. Sooner or later quasi-fiscal liabilities will be settled in two possible basic forms: recording of the losses to the past (to

[32] The deduction of the ESA deficit in the bill (6.1 per cent deficit target) does not include the statistical adjustment associated with the procurement of the Gripen fighter aircraft affecting the 2006 figures. From an accrual-based perspective, however, purchase with a repayment term of several years of a lease type in essence must be accounted for consistent with the balance of payments statistics in the year of their actual delivery (see Quarterly Report on Inflation, May and August 2005).

Table 6-1

ESA deficit expected for 2006: methodological and implementation risks
(per cent of GDP)

Interpretation of target	1. Deficit target according to national definition	4.7
	2. Private pension fund adjustment	1.4
	3. Official deficit target (1+2)	6.1
	4. Statistical recording for the Gripen procurement in the deficit	0.5
	5. ESA deficit based on budget plan (3+4)	6.6
Implementation risk	6. Likely slippage	1.2
	7. Expected ESA deficit (5+6)	7.8
Methodological risk	8. Methodological risk (accounting for motorway construction on the ESA basis)	1.1
	9. Expected ESA deficit with methodological risk	7.8-8.9

the years of their emergence) or by a one-off debt assumption affecting the figures of one year. In the first case, the deficit and debt figures of several years in the past would increase to a small extent, while in the second case the deficit and debt in the particular year would show a marked growth, similarly to that seen in 2002.

Measures announced so far increase the deficit in 2007 and 2008

Our method for estimation is as usual: as there is no approved budget path for 2007 and 2008, we have prepared estimates for the expected effects of determinants (measures already taken and announced in part). We assumed that the future changes in the revenues and expenditures not covered by these measures will have a neutral effect on the balance (i.e. their GDP ratio does not change) and we have not assumed further measures in any direction.

In the main scenario, the currently known determinants in themselves increase the deficit by 2008 relative to 2006 by 1.2 per cent of GDP primarily due to the effect of the tax cut programme causing revenue losses growing each year. In this respect, it is mainly the effect of the termination of the lump-sum health contributions at end-2006 on the whole year, social security contribution cuts, the loss from the "overindexation" of the personal income tax brackets and the termination of the local business tax from 2008 that cause a significant and permanent revenue loss. On the expenditure side transfers to families and the announced expansion of pension expenditures represent a deficit increasing determinant, while in the main scenario the assumed changes in interest expenditures could have a small improving effect on the balance.[33]

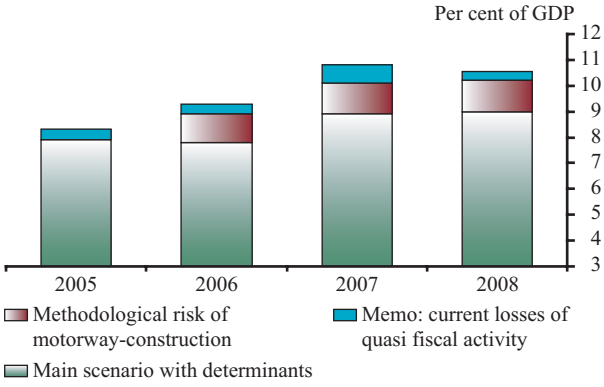
The uncertainties surrounding the Hungarian application of the ESA methodology represent a 1.2 per cent risk. If this appears in the deficit, the consolidation requirement may increase accordingly until 2008. In the main scenario, the ESA deficit excludes the effect of the quasi-fiscal activity of the current year. That would increase the needed adjustment by a few tenths of a per cent of GDP in 2008.

[33] Our assumption is based on the yield curve in November. Developments in interest expenditure may be more favourable if euro accession in 2010 is regarded as credible by the markets, however our fiscal scenario can imply a higher yield curve as well.

In sum, the ESA deficit may increase to 8 to 10 per cent by 2008 if no further balance improving measures are taken. In order to enter the euro area in 2010 as planned in the convergence programme, Hungary must come out of the EDP procedure in 2008 at the latest. This means that the ESA deficit will have to be reduced to around 3.5 per cent of GDP by 2008. In our estimate in order to counterbalance the deficit increasing effect of the determinants known to us as of today a GDP adjustment of around 5.5-7 per cent would be necessary.

Chart 6-1

Possible deficit scenarios*



** The main scenario: an expected ESA deficit of 7.8 per cent together with the deficit increasing effect of the determinants (tax cuts). It can be increased by the methodological risks of motorway construction and current losses of quasi fiscal activities.*

Revenues must be increased and transfer expenditures cut in order to achieve a lasting decrease in the deficit

The above analysis shows that in 2007-2008 a consolidation amounting to a minimum 5.5 per cent of GDP would be needed to reduce the deficit to a level complying with the Maastricht criteria[34].

Of this, some 0.5 per cent would be reached until 2008 due to a decrease in interest spending in case of a credible fiscal consolidation leading to the elimination of the difference in yields relative to the euro area.

In the section below we discuss the possibilities for a fiscal adjustment. Our analysis – partly due to the position of the central bank – is an illustration: we describe the possibilities for a necessary adjustment limited by the current characteristics of the budget as opposed to making concrete recommendations. The proportion of the concrete channels of adjustment (e.g. the interrelationship of measures relating to co-payments, taxes vs. transfers, etc.) could only be decided through making a choice on values in terms of social policy, which cannot the subject of our analysis.

In our assessment, while taking deficit reducing measures in every significant element of fiscal policy (e.g. wage expenditures, co-payments) is a *necessary* condition for adjustment, the improvement of the budgetary balance of tax revenues/transfers relating to the private sector (i.e. increasing the tax burden and/or cutting transfers in cash) must be considered a dominant part of an adjustment at a *sufficient* level with *long-term* effects. As we have already demonstrated, the balance of taxes and transfers moved in an opposite direction in last few years and further deteriorations of this balance can be projected on the basis of the draft budget for 2006 and announced fiscal measures for the next years.

We will analyse the balance of revenues and expenditures in three categories: net operational expenditures, investment spending and the balance of tax revenues and transfer spending.

First of all, let us examine the ways in which deficit could be reduced in the field of the government's net **operational expenditure** (e.g. the net value[35] of wage expenditures, government consumption (spending on goods and services) minus the co-

[34] Of this, some 0.5 per cent would be reached until 2008 due to a decrease in interest spending in case of a credible fiscal consolidation leading to the elimination of the difference in yields relative to the euro area.

[35] Naturally, when making accurate calculations the taxes paid by the government to itself must be excluded.

payment by users of government services). Net wage and government expenditures are of similar magnitude, while co-payment covers four-fifths of total net expenditure.[36]

In real terms, wage expenditures could be reduced effectively only if they were accompanied by cuts in government employment. This area should be examined in more detail, in the absence of which we assume that in the case of half of government employment there is limited possibility for staff cuts. In some cases the number of employed may even have to be increased (e.g. in defence due to international obligations or in health care due to demographic considerations). On the other hand, in case of the other half of government employees (e.g. education, public administration) a larger staff reduction would not face such obstacles. For illustrative purposes, if we took the level of staff cuts carried out between 1993 and 2001 as a point of departure, a reduction in this field of around 20 per cent would decrease the total number of government employees by approximately 10 per cent reducing total net wage expenditures by 0.6-0.7 per cent of GDP.[37]

The government's net operational expenditure could also be reduced by increasing the income from co-payments paid by users of government services (education, health care, administration, etc.). At present, this type of income amounts to around 3 per cent of GDP, which is in the upper section of the European field according to figures which are difficult to compare. The increase of such income appears similar to a tax increase, but in contrast it is a targeted and thus more effective solution, as people (and only those who use them) would only pay for the type and the amount of services they effectively "consume". Here, as a rule, a simple increase of the fees and dues already applied could be replaced by a wider range of co-payments. The introduction of co-payments (e.g. in health or education) is included in the recommendations of international organisations[38] and in the practice of Slovakia which has completed a successful adjustment in Hungary's immediate region. As an illustration, we assume a solution combining an increase in co-payments and a wider range of payments which would increase this type of government income by 25 per cent.[39] The government's net operational expenditure could be reduced by 0.7 per cent of GDP through such an increase in revenues.

A considerable reduction of government consumption could also be an option. This option, however, is significantly limited by the effect of "outsourcing" government investments into PPP forms, which gradually increases current expenditure. The effect of a 10 per cent reduction of government consumption (i.e. in proportion to above mentioned cut in the number of employees) would be practically eroded away in the course of a few years by the increase in expenditure arising from PPP-type solutions (availability fee payments, repayments, interest and maintenance expenditures).

The government's net operational expenditure therefore could be reduced most effectively

[36] In this regard international proportions differ. While in certain countries wage expenditures were transformed into service purchase expenditures through outsourcing, in a number of other countries (and in the EU average) the proportion of fee income is lower, which means that in these countries mainly taxes (or the deficit) finances operational expenditure.

[37] Reducing the tasks or improving the effectiveness of their completion simultaneously with staff reductions is another important consideration. Otherwise savings will only be limited or apparent: realising staff cuts partly through outsourcing the tasks would not produce significant savings if they were accompanied by a similar increase in service purchases.

[38] According to the IMF's recommendation published last year the introduction of the payment of fees (co-payment) could improve the position of health care by 0.5% of GDP. (Staff Report for the Article IV Consultations, 2004).

[39] This would be a significant increase. An increase higher than this would not be plausible as it may put such a pressure on compensation or exemption and it may be accompanied by a decline in demand to such an extent that could question the possibilities for additional revenues. Through this increase Hungary would significantly exceed the average fees received in the EU countries and in Slovakia in particular, while an income significantly higher than this can only be realised by the Scandinavian countries.

through a lower number of employees and a wider scope of co-payments from service users. On the whole, in this field the net operational expenditure could be reduced by 1.3-1.4 per cent of GDP, based on firm but seemingly realistic measures in the coming years. In our estimate, the total adjustment requirement is a *minimum* of 5.5 per cent of GDP and thus the necessary level of fiscal consolidation cannot be realised even through the drastic cuts in net operational expenditure.

With regard to general **government investment**, expenditures in this field cannot be reduced significantly following the tightening planned for 2006. Although in principle there is some scope for cuts in the area of local government investments, it would be difficult to quantify this. At the central government level, one would expect increasing, not declining investment spending. This is partly due to the fact the even the tightening planned for 2006 is unsustainable as outsourcing expenditures could only represent temporary savings (as we have seen it will lead to a significant increase in operational expenditure) and partly due to the fact that Hungarian funds required for EU-financed investments (co-financing) are likely to increase.

It is therefore quite clear that the deficit reduction mentioned above can only be realised through changes in the balance of taxes and contributions (more simply: taxes) collected from the private sector and the transfers provided to the private sector.

It is worth handling the question of tax payments and transfer provisions together for several reasons. On the one hand, in economic terms it is through these channels where fiscal policy undertakes the redistribution of cash income among various income and age groups and where the choice between taxes and transfer is subject to value judgements. On the other hand, it is their balance which is used by the private sector to finance the general government's operational, investment and interest expenditures.

The comparability of tax burdens and transfer expenditures on the international level is limited;[40] by European standards the weight of direct taxes (including contributions) is slightly smaller than indirect taxes within the tax burden. As regards transfers, cash payments to households is a dominant feature everywhere, while in Hungary the weight of other (mainly corporate sector) transfers is greater than the EU average.

In addition to the realistic tightening of operational expenditure, the deficit must be reduced by some 3.6-3.7 per cent of GDP through an increase in tax revenues and/or a decrease in transfers. In order to illustrate the magnitude of the necessary measures we would like to note that taken together they would exceed the amount of subsidies provided to the corporate sector including agricultural enterprises and state-owned companies. Another point of reference could be the fact that if the adjustment was to take place through broadening of the tax base and the termination of tax allowances, the termination of every personal income tax and corporation tax allowance taken together would only be sufficient for half the amount needed for this measure.

Based on the above analysis of the present fiscal situation and possible solutions, it is quite clear that the Hungarian government is struggling with serious structural problems, from which there is no "easy" way out. Our analysis shows that fiscal policy-makers must simultaneously take measures in a number of fields, which are accompanied by significant short-term costs in each case.

[40] When comparing tax burdens internationally, for example, the elimination of the tax content of the government's operating expenditures and transfers could cause a problem as we have no comprehensive data available in this regard. Handling tax allowances could cause further difficulties as these are often equivalent to transfers. We have already elaborated the methodology of comparison, but due to the lack of data the estimation procedure will constitute a longer research. (Gábor P. Kiss: How to measure tax burden in an internationally comparable way? Suggestion for a standardized effective tax rate, mimeo)

6. 2. Expected developments in government debt

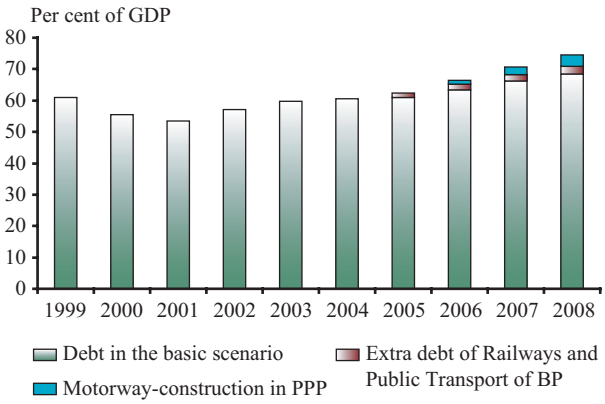
At an unchanged nominal exchange rate and real interest rates, the debt ratio would remain broadly unchanged if the deficit in the primary balance does not exceed a deficit of 0.6 per cent,[41] no revenues are raised from privatisation and no debt is assumed.

Assuming, on the basis of the draft budget, the cash-based deficit will be 8 per cent, in other words higher than the target of the general government in 2006, and a subsequent 0.6 percentage point cut in the deficit, as envisaged in the Convergence Programme, then the debt ratio can be expected to increase by more than 2.5 percentage points on an annual average. Revenues raised from privatisation, which can amount to 2.7 per cent of GDP in 2005-2006, may confine the increase in government debt. Considering all these factors, by the end of 2008 the debt ratio may exceed 68 per cent of GDP. In order to arrest further growth in the debt ratio, the primary deficit should be approximately 2.5 per cent lower than the basic scenario.

In addition to the above, our projection involves the following upside risks. The fiscal deficit may be higher than indicated in the basic scenario (see the risks described in the section on the deficit), and – as outlined above in relation to the expected deficit – the methodological uncertainty inherent in the settlement of quasi-fiscal activities also applies to debt. By 2008, quasi-fiscal liabilities will have approached as much as 6 per cent of GDP, while the motorway construction projects undertaken in a PPP arrangement and the debt accumulated by the companies MÁV and BKV may remain excluded from official accounts throughout the period reviewed.

Chart 6-2

Government debt expected in the basic scenario and risk factors as a percentage of GDP



In addition to the government deficit and debt assumptions, further risk is carried in the fact that the macroeconomic variables (real interest rates, the growth rate and exchange rates) may develop differently than assumed. Other factors being equal, a one per cent change in real interest rates or the rate of real growth would cause the debt ratio to change by 0.5-0.6 percentage points every year. This means that a long-term 100-basis point rise in the real interest rates or a 1-percentage point slowdown in economic growth would raise the debt ratio by nearly 1.5-2 percentage points between 2006 and 2008. As for the exchange rate, an eventual depreciation, and a subsequent stabilisation at a lower level would increase the debt ratio in the year of depreciation. Provided that the exchange rate change has no significant effect on inflation, a 5 per cent weakening in the exchange rate would raise the debt to GDP by 0.8 cent.

[41] The real interest rate remains below the rate of growth and real appreciation, thus in the aggregate, the real components tend to reduce the debt ratio.

Box 6-1 Long-term outlook: determinations arising from the pension system[42]

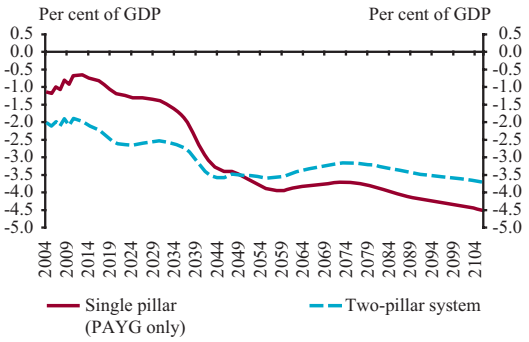
With present regulations and the demographic trends expected in the future, the Hungarian pension system is unsustainable: it is able to pay benefits regulated by law only at the expense of a growing deficit. Despite the fact that the parametric pension reform in 1997/98 improved the sustainability of the pension system significantly, the implicit government debt in the system now amounts to around 250 per cent of GDP.[43] Immediately following the reform the same figure was only a little over one fourth of this value.

A part of the large implicit debt (an amount equal to almost a whole year's GDP) is the result of the subsequent reductions of contribution rates since 2000. Another nearly half a year's GDP can be attributed to 13th month pensions introduced gradually since 2004. The further cuts in contribution rates envisaged for later years in the 2006 tax bill[44] have increased the implicit pension debt by another 40 percentage points. The planned one-off pension adjustments announced recently would increase the level of implicit government debt even further (by cc. 5 per cent of GDP). These measures have weakened the insurance principle of the system indicating that long-term strategic considerations have been pushed into the background.

The introduction of the second (fully funded) pension system in 1998 does not in itself improve the sustainability of the system: it only provides an opportunity to address (at least partially) the long-term financing problems of the pension system today. Initially, until around 2050, the transition will increase the deficit of the Pension Insurance Fund due to the shortfall in contributions, while later it will improve the balance as a result of the reduction in pension expenditures paid to the members of the mixed system. In the above calculations we assumed that the shortfall of contribution income will be financed through deficits. The near-term shortfall in revenues are not covered by lower expenditures in the distant future in present value and thus the implicit government debt of the mixed system is higher than that of a hypothetical purely pay-as-you-go system. If, however, the shortfall in revenues in the first period is financed through higher taxes or cuts in government expenditures, the 1998 transition to the mixed system would reduce the implicit debt by 25 per cent of GDP compared to a pension system without a second pillar.

Chart 6-3

Balance of the Pension Insurance Fund between 2004-2105



Source: MNB.

[42] This Box summarises the preliminary findings of a study to be published by Gábor Orbán–Dániel Palotai entitled "The sustainability of the Hungarian pension system: a reassessment".

[43] The present value of the future annual deficits of the Pension Insurance Fund calculated at a 3% real discount rate.

[44] Employer contribution rates will be reduced from the present 18% to 17% from 2007 and then to 16% from 2009.

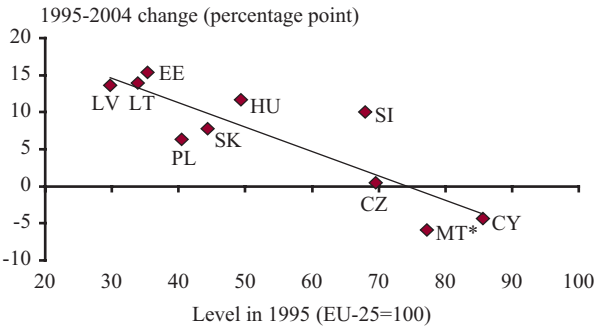
6. 3. Indicators of real convergence

The level of Hungarian economic development has been improving continuously over the last ten years. While in 1995 its economic development expressed on the basis of per capita GDP adjusted for purchasing power parity amounted to around 50 per cent of the current EU-25 average, this figure exceeded 60 per cent by 2004 and Hungary reached the average of the economic development of the ten new EU Member States.

In the meantime, per capita GDP has also increased in the majority of the ten new Member States (excluding Cyprus and Malta). In addition, a typical feature of convergence could be observed: while the economy of less developed countries (the Baltic states in particular) grew faster, the growth of relatively well-developed countries remained typically under the average level.

Chart 6-4

Per capita GDP adjusted for purchasing power parity



**Malta: 1999 level and growth in 1999-2004 due to lack of data.*
Source of data: Eurostat. CY: Cyprus, CZ: Czech Republic, EE: Estonia, HU: Hungary, LT: Lithuania, LV: Latvia, MT: Malta, PL: Poland, SI: Slovenia, SK: Slovakia.

Box 6-2 What is GDP adjusted for purchasing power parity?

Making international comparison of the gross domestic product (GDP) is hindered by the fact that GDP is originally expressed in national currency and reflects the price level of a given country. Adjusting the GDP for purchasing power enables international comparison of GDP volumes by converting national GDP figures into a common currency and price level. Purchasing power parity (PPP), therefore, represents a currency conversion rate that – in addition to correcting for exchange rate differences – also eliminates differences in the amounts of a given consumer basket that can be purchased from a given nominal income amount in different countries. In particular, the PPP rates calculated by Eurostat convert the GDP statistics of EU member states into an artificial common currency, the PPS (Purchasing Power Standards). The value of one PPS is fixed so that, at any time, it equals to the average purchasing power of one euro in the European Union. In the case of Hungary, the PPP was 147 in 2004 which was the product of the multiplication of a 0.58 relative price level and the exchange rate of 252 HUF/euro. Thus, if we convert Hungarian GDP into PPS (divide it by the PPP rate), GDP in Hungary shows a smaller economic setback relative to the EU average than simply converting it into euros, as this conversion takes into account the fact that the Hungarian price level is only slightly above half of the EU one.

The above indicator of economic development is dependent on a number of factors. Thus, per capita GDP adjusted for purchasing power parity is increased by the growth of GDP and the employment rate, while it is reduced by a higher relative price level and depreciation of the domestic currency. Among these factors we examine employment and price convergence in more detail in the section below.

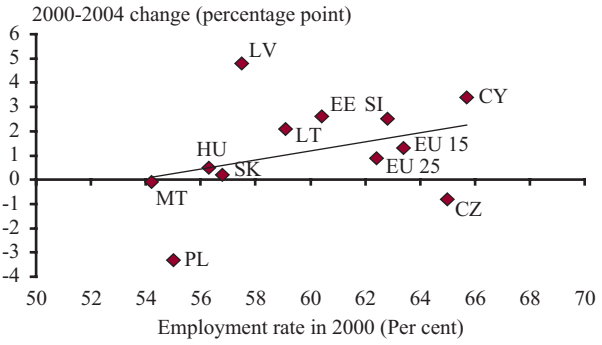
Over the last ten years economic development in the new Member States was almost entirely due to the expansion of the stock of capital in production use and the growth of total factor productivity (TFP), while employment had only a smaller, and in a number of cases negative, effect on economic growth.[45] This phenomenon can partly be explained by the fact that the decline in employment due to the economic transition is still continuing in a number of countries under consideration. As this process took place in Hungary relatively early, the Hungarian employment rate increased in the period under review and according to the estimate of the European Commission employment contributed to GDP growth positively, although moderately.

With the exception of the Czech Republic and Cyprus, employment rates in the ten new Member States fall far behind the average rate in EU-15. Among them, the employment rate in Hungary is one of the lowest. Despite low employment rates, employment has declined further or has increased more moderately than the EU-15 average in the majority of the new Member States since 2000.[46] Hungary is also one of these countries "falling behind" as the growth rate of employment in the age group of 15-64 has not kept up with the growth of the EU average in the period under review.

In general, the size of the domestic price level is in direct proportion to economic development, which means that the convergence of per capita GDP moves in parallel with the convergence of price levels. This principle was observed in Hungary as well as in the new Member States over the last ten years. Furthermore, as the progress in economic development in the relatively less developed coun-

Chart 6-5

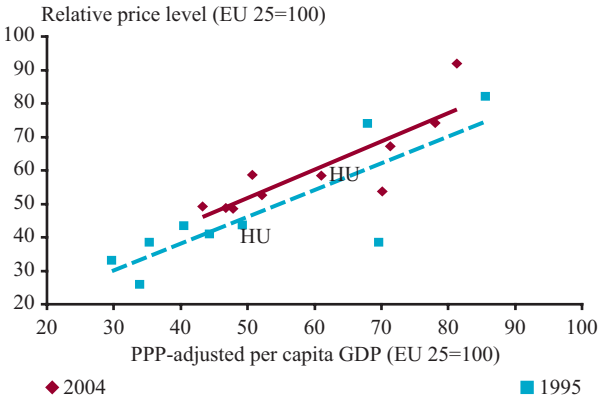
Employment rates



Source of data: Eurostat, LFS data. Employment rate: The number of employees as a percentage of the population in the age group of 15-64 in the case of both indicators.

Chart 6-6

Economic development and the convergence of prices



Source: Eurostat. Prices refer to the GDP-deflator.

[45] This was confirmed by the production function estimates of both the European Commission and the IMF for the last ten years. See: European Commission, The EU Economy: 2004 Review and IMF World Economic Outlook, September 2005.

[46] It is worth noting that the sharp increase of the employment rate in the Baltic states and in Latvia in particular was mainly due to a drop in the population as opposed to the growth in the number of employees. This is also shown by the fact that while employment rates increased in the three countries, the contribution of employment to GDP growth was negative according to the calculations of the European Commission and the IMF.

tries was faster, the convergence of price levels was similarly most noticeable in these countries.

In the case of traded products, prices approximate the EU average much more due to the short-term levelling of prices through foreign trade. Thus, in the longer term, the price convergence taking place in parallel with economic development is realised primarily through an increase in the price of non-traded services (i.e. through the appreciation of the internal real exchange rate) in line with the Balassa-Samuelson effect.[47] Accordingly, while in Hungary the consumer price level of goods exceeded 70 per cent of the EU 25 average in 2003 based on Eurostat figures, the price level of services did not reach 50 per cent of the same.

[47] The Balassa-Samuelson effect is based on the assumption that during the process of economic development the productivity growth of sectors producing traded products exceeds that of non-traded sectors (typically services). Therefore, given unchanged product prices, wages can increase faster in traded sectors. The whole economy levelling of wages arising from the free flow of labour among sectors also increases non-traded wage growth and consequently, wage increases exceeding productivity growth will lead to a higher product price inflation in non-traded sectors. On the whole, during economic convergence the inflation rate of non-traded products exceeds that of traded ones which in turn leads to the appreciation of the internal real exchange rate (i.e. the ratio of non-traded and traded prices). For more details, see among others Obstfeld-Rogoff (1998), Foundations of International Macroeconomics, p. 210.

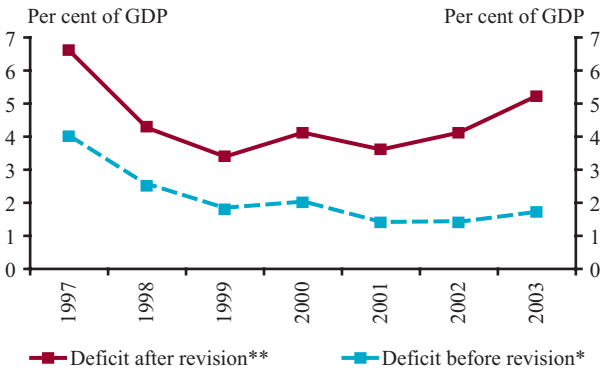
6. 4. A retrospective evaluation of fiscal convergence of the old EU Member States

A retrospective evaluation of fiscal convergence experience in the eurozone members may serve as a basis for an assessment of the length of time that Hungary may take to be able to meet the fiscal convergence criteria needed for euro introduction. We chose the countries that previously were faced with persistent fiscal problems as a benchmark, i.e. countries that 5 years before EMU participation had to perform an adjustment amounting to at least 2 per cent of their GDP in order to be able to meet the Maastricht criteria.[48]

What makes our analysis difficult is that it was often the case that some countries revised convergence indicators, especially fiscal data, substantially, which shed a different light on their performance both before and after their entry. In the light of more recent data it is safe to assume that only Spain was able to carry out consolidation successfully. Portugal and Greece revealed in as late as 2001 and 2004 respectively that actual fiscal data had differed from those disclosed. If a stricter interpretation had been put on them, on the basis of more recent data, they would not have qualified for entry.

Chart 6-7

Revision of the deficit in Greece



**2000 and 2001 data were heavily revised already in 2002.*
*** Eurostat has not accepted data for 2001, 2002 and 2003 as final. Thus, the deficit may be higher.*

Chart 6-8

Revision of the deficit in Portugal

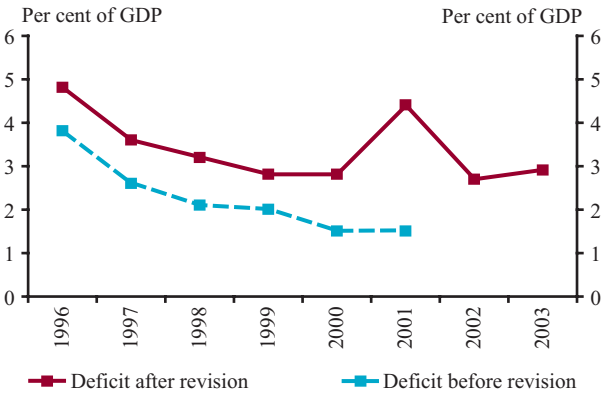
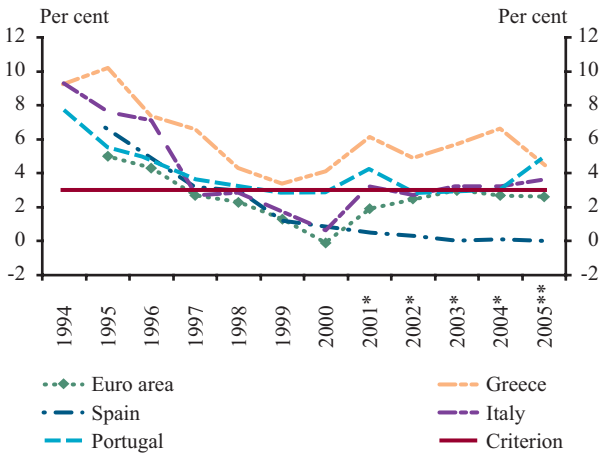


Chart 6-9

Fiscal deficits



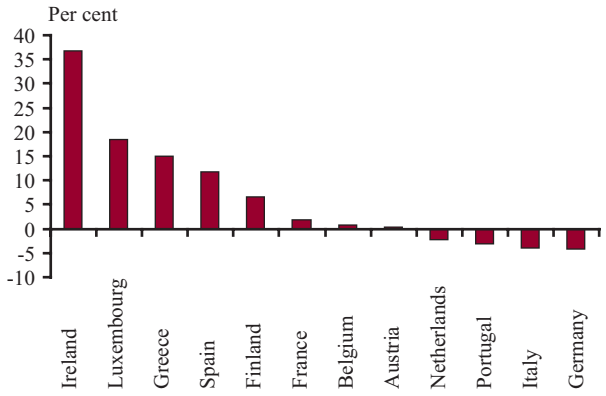
Note: positive value denotes deficit, negative value denotes surplus.
Source: Ameco and Eurostat.
** Eurostat on the basis of the September 2005 fiscal notification.*
*** For 2005, European Commission, Spring 2005 forecasts (Ameco).*

[48] Convergence criteria are evaluated in May of the year preceding EMU entry. It was in 1998 in the case of Portugal, Spain and Italy and in 2000 in the case of Greece. Fiscal convergence was evaluated on the basis of the data for the final full calendar year, i.e. 1997 and 1999 respectively. In the case of Hungary, if it is to join the EMU in 2010, fiscal convergence would be evaluated on the basis of the 2008 fiscal data in May 2009.

EU authorities perceived the practice of fiscal data provision adopted by Greece as an especially gross violation of European regulations, and initiated measures across Europe in order to prevent a repeat of the Greek case. In order that the consequences of the failure to carry out fiscal consolidation can be studied, the analysis of the Italian case could also be instructive. The reason for this is that it was able to meet the deficit criterion by means of several one-off measures and creative accounting (e.g. euro tax).

Chart 6-10

Cumulated GDP growth differential compared to the euro area average, 1999-2004



The original underlying reason for setting the Maastricht criteria was to ensure satisfactory convergence prior to EMU entry in order to enable economic policy to smooth shocks to the economy. Except for Spain, no leeway was provided for the rest, and an excess deficit procedure was launched against Portugal in 2001 and 2005, Greece in 2004 and Italy in 2005. This led to fiscal adjustment in an unfavourable growth environment and in a manner that compounded recession. As fiscal consolidation had to be performed in a number of EMU countries (in addition to those mentioned above, in Germany and France), its impact on demand was mutually reinforced.

This was the most obvious in Portugal, where economic growth – after a period of acceleration – declined from early 2001 and has been stagnating ever since. Italy also experienced slow growth. Greece has well exceeded the regional average due mainly to deficit spending in connection with the Olympic Games. Falling behind potential output, growth is expected to fall from 4.2 per cent to below 3 per cent in 2005 as a result of the consolidation programme launched at end-2004.

Unfortunately, we cannot compare performance in EMU with a hypothetic scenario under which the countries surveyed remained outside EMU. Therefore, it is difficult to assess whether or not the problems of growth outlined above would have been even graver but for the entry. The Spanish example confirms that actual fiscal consolidation leads to a much more favourable situation in EMU than if it is achieved with different temporary measures and creative accounting.

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Report on Convergence
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