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Preparations of the State Audit Office of Hungary for the Analysis of the Macroeconomic Risks to the State Budget

Summary: The President of the State Audit Office of Hungary (SAO), in his capacity as a member of the Fiscal Council, will rely on the knowledge gathered by the auditors during their on-site audits aimed at the establishment of the opinion of the SAO on the budget appropriation bill, and in the course of other audits. The Research Institute of the SAO contributes to the formulation of a well-founded opinion on the credibility and feasibility of the draft budget by preparing a fiscal risk analysis. The fiscal risk analysis primarily examines whether

- the government's macroeconomic projection contains elements of excessive risk,
- the projections of the various factors constitute a consistent system, and
- the planned appropriations of the fiscal revenues and expenditures that highly depend on the changes in macroeconomic parameters are in conformity with the macroeconomic projections of the government.

In addition to outlining the method of risk analysis, the article provides several examples to describe how the development trends of the Hungarian economy in the last 15–20 years influenced the macroeconomic environment of the state budget.

KEY WORDS: budget, fiscal forecast, fiscal policy

JEL CODES: H61, H68, E62

TASKS RELATED TO GIVING AN OPINION ON THE BUDGET

It is a very rare solution in Europe or anywhere in the world that the supreme audit institution of a country, or the State Audit Office, as it is called in Hungary, should express an opinion on the draft of the central budget. The typical situation is that supreme audit institutions audit the final accounts of the budget, i.e. they make important observations on the execution of the budget subsequently, but they do not give a preliminary opinion. By contrast, the Act on the

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State Audit Office of Hungary (SAO), adopted in 1989, provided for the SAO to give an opinion on the substantiation of the budget appropriation bill and on the feasibility of revenue appropriations. The new Act on the State Audit Office of Hungary, which has been in force since 1 July 2011, has expanded this task. Section 5(1) of Act LXVI of 2011 stipulates: "The SAO shall audit the financial management of the general government, including the substantiation of the central budget proposal (supplementary budget proposal), the feasibility of revenue appropriations as well as the legality and expediency of the utilisation of investment appropriations that involve public commitments."

Act LXXV of 2008 on Cost-efficient State Management and Fiscal Responsibility also entrusted another organ, the Fiscal Council (FC), with giving an opinion on the budget. The amendment to the Act in December 2010 changed the composition and tasks of the FC. The President of the State Audit Office of Hungary became an ex officio member of the FC. The FC gives an opinion on the draft of the Act on the Budget before it is submitted to the National Assembly. If it has fundamental objections in connection with the draft with regard to its credibility or feasibility, the FC indicates its disagreement with the draft to the government.

At least two questions may arise in connection with this change. The first one is to what extent this new competence of the President of the SAO changes the activity of the SAO related to giving an opinion on the budget. The second one is how the SAO as an organisation is able to assist its President in his capacity as a member of the FC to express a well-founded opinion on the credibility and feasibility of the budget appropriation bill.

The answer to the first question is given by the aforementioned amendment, which stipulates that the activities of the Governor of the Magyar Nemzeti Bank (MNB) and of the President of the SAO performed in the work of the FC do not affect the statutory tasks of these organisations. The position represented by or the decisions taken by the FC and the persons acting as its members do not bind the Governor of the MNB or the President of the SAO during the performance of their tasks as Governor and President, respectively.

Pursuant to the above-mentioned legal regulations, there are differences between the two opinions both in time and contents. Namely, the FC gives an opinion on the draft of the budget appropriation bill before it is submitted to the National Assembly. The government is entitled to submit the budget appropriation bill

to the National Assembly only after receipt of the opinion of the FC or following expiry of the 10 days available for giving an opinion. Moreover, if the FC has indicated its disagreement in connection with the draft before the deadline, the government is obliged to renegotiate the draft and resend it to the FC, which has 5 days from receipt of the draft for giving an opinion again. The government may submit the budget appropriation bill to the National Assembly following receipt of the newer opinion of the FC or, if no opinion is expressed by the FC, after expiry of the 5-day deadline. By contrast, the SAO gives an opinion on the bill that has already been submitted to the National Assembly. The Act on Public Finances stipulates that the National Assembly should discuss the budget appropriation bill together with the opinion of the SAO, i.e. the National Assembly does not start the debate on the budget until it has received the opinion of the SAO.

There is a difference between the two opinions in terms of their stance as well. Pursuant to the relevant act, the FC may comment on any point of the draft of the budget appropriation bill, but it can express disagreement only in connection with the credibility and feasibility of the draft. By contrast, the SAO gives an opinion on the substantiation of the budget appropriation bill and the feasibility of revenues. In conformity with this statutory authorisation, the opinion of the SAO did not and does not directly mean taking up a position with regard to the expected social and economic effects of the government's economic stimulation or restrictive measures reflected in the budget appropriation bill. The opinion evaluated how well-founded the elaborated appropriations were, whether their performance was supported by empirical data, and whether the proposed amendments to the law facilitated it.

In the last two years – taking account of the provisions of Act LXXV of 2008 on Cost-effi-

cient State Management and Fiscal Responsibility - public sector audit only dealt with the evaluation of macro data to the extent necessary for giving an opinion on the substantiation of the total amounts of revenues and expenditures. In the previous years, the SAO's opinions on budget appropriation bills always presented the expected macroeconomic conditions of the budget based on forecasts by domestic research institutions, the National Bank of Hungary (MNB) and - more recently - by the European Commission and the International Monetary Fund. However, the SAO has never elaborated a macroeconomic projection of its own. In connection with giving an opinion on the 2008 and 2009 budget appropriation bills, the Institute for Development and Methodology of the SAO, i.e. the legal predecessor of the Research Institute of the SAO (RIHSAO), compiled an evaluative study on the macroeconomic substantiation of the budget appropriation bill, and the President of the SAO submitted that study as an attachment to the opinion on the budget to the National Assembly (see Institute for Development and Methodology of the State Audit Office of Hungary, 2008a-c).

Accordingly, the activity of the SAO related to giving an opinion on the budget is practically not influenced by the fact that the President of the SAO has become a member of the FC. At the same time, the President of the SAO, in his capacity as a member of the FC, will rely on the knowledge gathered by the SAO during its on-site audits aimed at the establishment of the opinion of the SAO on the budget appropriation bill and in the course of other audits. In fact, one of the reasons for the amendment to the law in December 2010 was to prevent the FC from employing a team of analysts of its own, and to make it rely on the expertise of the two organisations - the MNB and the SAO that ex officio participated in the budget debates earlier as well.

As part of preparations for giving an opinion on the budget appropriation bill, auditors visit the ministries, other organisations responsible for budgetary chapters, the managers of separated state funds etc. They conduct on-site audits to find out whether the budgetary appropriations are adequately substantiated by calculations; whether appropriate measures have been taken in order to implement the planned cost reductions; whether savings are real, or the payment of invoices is just postponed from one year to the next etc. Naturally, the information collected this way may serve as an important basis not only for the evaluation of the substantiation of the appropriations, but also for the assessment of the credibility and feasibility of the proposed legislation on the budget. Other audit reports of the SAO - for example those on the utilisation of the funds received from the European Union, or the efficiency of the incentives for job creation - are also useful sources of information, because they indicate what improvement in efficiency should be achieved in each important field of implementing the Act on the Budget in order to attain the targets set.

A new element: for giving an even more comprehensive opinion on the budget appropriation bill, the SAO is creating a kind of monitoring system: in the course of its on-site audits related to the audit of the final accounts of 2010, from the ministries concerned the SAO collects the data and analyses related to the developments in the budget of the year under review that it can use for giving an opinion on the substantiation of next year's budget appropriation bill. For example, analyses of why certain tax revenues fall short of the planned levels, or data on the changes in the composition of jobseekers that facilitate a better quantification of the effects related to the already announced restructuring of unemployment benefits. Using the monitoring system thus created, the SAO will be able to judge the

validity of the base data more thoroughly and obtain a deeper understanding of the processes that influence the developments in the budget. Both are very important, as in the last two decades it happened that the budget was built on too optimistic base data, or the volume of tax refunds or the tax losses due to provisioning were wrongly estimated in the case of some types of tax, although the data of the year of planning already would have warned of the danger.

THE RIHSAO RESUMES FISCAL RISK ANALYSIS

Expediently using the findings of and the information collected during SAO audits, the RIHSAO plays an important role in providing a professional background for the President of the SAO for formulating his opinion in his capacity as a member of the FC. The RIHSAO resumes fiscal risk analysis, as part of which it examines two systems of correlations.

- Does the government's macroeconomic projection contain any elements of excessive risk, and does the forecast of individual factors constitute a consistent system?
- 2 Are the planned appropriations of the fiscal revenues and expenditures that highly depend on the changes in macroeconomic parameters in conformity with the macroeconomic projections of the government?

What is the essence of fiscal risk analysis, the method of which was developed by senior experts of the RIHSAO in 2007 for formulating an opinion on the 2008 budget appropriation bill, and which was further improved in 2008? The method is described in detail in *Báger*, *G. – Pulay*, *Gy.* (2008a).

First of all, it is necessary to point out that fiscal risk analysis is not a projection. In addition to the government, the MNB and several research institutes also prepare macroeconomic forecasts in Hungary. These are estimates based on the best knowledge of the given institutions, and are prepared independently of one another. Fiscal risk analysis, in turn, takes the government's projection as a basis, and analyses the probability, the direction and the magnitude of the changes that may take place compared to the projection. The objective of the analysis is to identify the dangers with a high probability of occurrence and the ones that result in a significant deviation compared to the government's projection, i.e. the ones that pose risks from the aspect of attaining a material target of the budget.

The starting point of the fiscal risk analysis is that the processes that determine budgetary revenues (such as economic growth, inflation) have a trend. The value of the process for a given year (for example the rate of inflation) is the result of three factors. They are: value according to the trend, exogenous effects (that cannot be influenced by the government) and endogenous effects (consequences of the acts of the government).

Let us see an example for the above.

In our study that analyses the macroeconomic risks of the 2008 budget appropriation bill we revealed that in the business sector the annual growth in average earnings shows a close correlation with the inflation of the previous year and not with that of the given year. However, if this correlation had prevailed, in 2008 the projected decline in the inflation rate would not have resulted in the immediate fall in the growth rate of wages, contrary to the government's forecast. Theoretically, it would have been possible to break the trend of changes in wages that follows the inflation of the previous year, as in the National Interest Reconciliation Council the government could also have agreed with the social partners on a lower average wage increase that followed the envisaged inflation. These arrangements, which were only considered recommendations in a legal sense,

had a very weak regulatory force, as in the 15 years under review the growth rate of average earnings usually significantly exceeded the extent agreed upon. Consequently, we identified it as a risk that wages in the business sector would increase more than what was forecast by the government. From the aspect of the budget this posed a risk because of the increase in pension expenditures, although the faster than envisaged wage growth adds to fiscal revenues as well. The risk identified in our study did occur in 2008, i.e. average earnings increased to a greater extent than what was forecast by the government. However, inflation also became higher than envisaged. (Our study also called attention to this risk.) Overall, the higher increase in prices and wages had a benign effect on the balance of the annual budget. At the same time, the negative social and economic effects of the high inflation continued to prevail.

Following this digression, let us return to the method itself. The first step of risk analysis is the identification of the trends of the analysed phenomenon and the factors that affect them significantly. This requires the exploration of the trends of at least the last 10 years, the deviations from the planned values and their underlying reasons. The analysis of the past is followed by the evaluation of the new developments that may result in the deviations from the trend. In determining the expected values of the exogenous variables, we rely on international comparisons and the analysis of the projections by international organisations, and we also utilise the findings of domestic research workshops. In the case of the endogenous variables, we examine in what direction and to what extent the decided government measures may change the processes, and whether the available means are sufficient to change the trends of the past years, or there is a serious risk that a given trend will not break despite the intention of the government (for example,

inflation will not decelerate to the planned level).

An impeding circumstance is that the 2008–2009 global financial crisis broke the earlier trends. Therefore, we have to be especially careful upon examining the impact of the crisis on the nature of the change in the analysed factor (it changes completely, continues at a lower level, returns to the value following the original trend).

The risk analysis essentially covers factors that are contained in the government's projection attached to the budget appropriation bill. They are:

- changes in GDP on the production side,
- domestic absorption:
 - household consumption,
 - public consumption,
 - gross fixed capital formation,
- prices,
- wages,
- employment,
- labour productivity,
- exports,
- imports,
- current account balance.

The risk analysis consists of three phases:

- analysis of the risks related to the developments in individual factors of the macroeconomic projection of the government;
- 2 analysis of the correlations between the changes in individual factors: exploration of inconsistencies and of the risks that strengthen one another and the ones that offset one another's impacts;
- 3 the effect of the risks related to the changes in the macroeconomic environment on the main budget revenues and certain fiscal expenditures as well as on the balances of the budget (primary and cash-based, GFS balances).

Model calculations are not used in the first phase: an attempt is made at determining the lower and upper limits of the expected developments in the given factor by means of statistical methods and expert estimates. The correlations thus established may provide inputs for model calculations.

Obviously, the limited personnel of the RIHSAO is unable to carry out the three-phase risk analysis for all the factors listed. Therefore, the RIHSAO strives to include the findings of other research workshops in its risk analysis in a synthesized manner. One of the most important objectives of the IDE conference as well was to let the members of the FC and the staff of the SAO and of the RIHSAO have firsthand information about the opinions of the scientists who deal with subjects of the Hungarian and international economies that significantly determine the room for manoeuvre of the budget. It was a special request to the speakers to hold their respective presentations in line with the logic of the fiscal risk analysis: What is the trend of the phenomenon examined by them? How was this trend changed by the global financial crisis? What effects can the already known and planned government measures have on the expected developments in the factors under review?

In 2007, the starting point for developing the method of fiscal risk analysis was constituted by the analysis of the economic and fiscal developments that took place in Hungary after the democratic transformation. Namely, the analysis of the 15-year time series showed that very definite trends prevailed in the development or stagnation of the Hungarian economy, which were only slightly influenced by government interventions. However, if so, the greatest risks in the macroeconomic projections are to ignore these trends and to overestimate the expected effects of government measures. (Of course, unexpected external effects also pose risks, but chances to eliminate them are very low.) Therefore, below I would like to present some examples of the interesting trends of correlations in the Hungarian economy in the last 10-15 years. I

will also quote some examples where the correlations were not found the way one would have expected to find them on the basis of the first chapters of textbooks of economics.

EXAMPLES

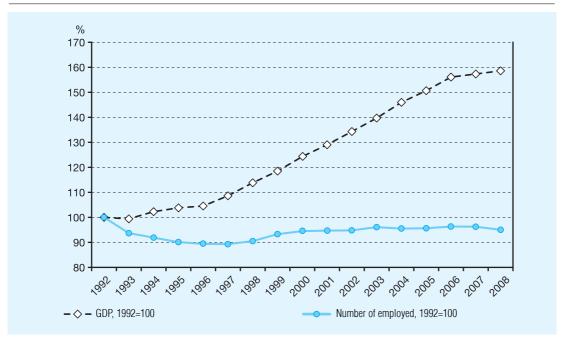
These are examples of the correlations that prevail – or do not prevail – as trends in the Hungarian economy.

Trends in GDP and the number of employed

Chart 1 shows the changes in GDP and the number of employed between 1992 and 2008. The correlation is well-known; still, the pattern of the time series covering 17 years is more than remarkable. Following the serious downswing of the early 1990s, the GDP started to grow slowly, then it increased dynamically for some years, but this dynamism broke as from 2007. Nevertheless, it grew by nearly 60 per cent in 17 years. This is not a spectacular development, but it is still significant. By contrast, employment has been unable to climb out of the trough since the democratic transformation. Between 1990 and 1992, one third of the jobs ceased to exist, the number of employed continued to decline in the years of slow GDP growth, and even the period of dynamic growth resulted only in a stagnation or a minimum increase in employment. A breakthrough in employment should be achieved compared to this trend of more than one and a half decades.

The data for 2009 and 2010 are deliberately not included in Chart 1, as the earlier trend was broken by the crisis. In 2009, the GDP fell by 6.7 per cent, while employment declined "only" by 3.7 per cent, i.e. the European effort to prevent enterprises and budgetary institutions

TRENDS IN GDP AND THE NUMBER OF EMPLOYED



Source: ÁSZKUT

from reacting to the crisis with an immediate downsizing of staff gained ground in Hungary as well. However, this meant that considerable "in house" labour reserves were accumulated in the business sector. Consequently, even an upswing cannot result in a rapid growth in the number of employed, as enterprises will mobilise their internal reserves first. This behaviour is well illustrated by the data of industrial production and employment: in 2009, industrial production fell by 17.8 per cent, while the number of employed¹ declined by a "mere" 10.5 per cent. By contrast, industrial production already increased by 10.5 per cent in 2010, while the number of those employed in industry declined by 1.2 per cent.

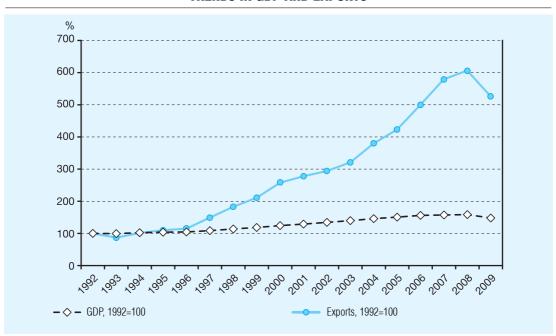
We find some explanation why the trends of GDP and employment have drifted away from one another if we examine what the main driving force of GDP growth was. Every economist knows the answer: exports. This is illustrated by *Chart 2* as well. However, the scissors-like

opening of the two trend lines, which cover 18 years, is again astonishing. Between 1992 and 2008, Hungarian exports grew sixfold, while the GDP increased by "only" 60 per cent. This is a good demonstration of the fact that Hungarian exports mostly consist of the processing of imports, with the inclusion of low Hungarian added value. I deliberately show the year 2009 data as well in this chart. Namely, the data of the 2009 global crisis are a kind of "counter-proof": Hungarian exports fell by 12.7 per cent in that year, entailing a "mere" 6.5 per cent decline in GDP. This also proves that work done in Hungary constitutes only a fraction of Hungarian exports (including the performance of exporters' domestic suppliers as well).

Trends in GDP and exports

Foreign-owned (multinational) companies account for three quarters of Hungarian

TRENDS IN GDP AND EXPORTS



Source: ÁSZKUT

exports. They produce the goods for exports by creating modern capacities, at workplaces where productivity is many times higher than the Hungarian average, relying on their own international network of suppliers, i.e. the employment increasing effect of their activities may equal some tens of thousands of people (for more details see Báger, G. – Pulay, Gy., 2010). Accordingly, if GDP growth remains based on exports of such composition in the future, no breakthrough can be achieved in employment.

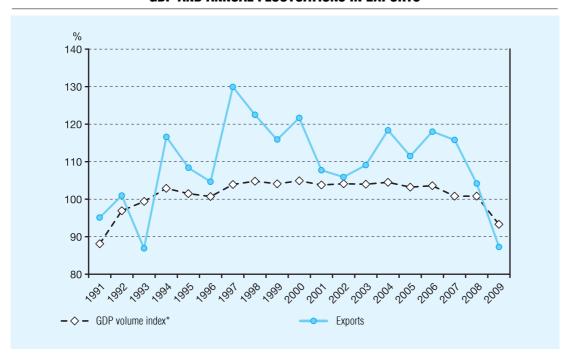
Chart 2 confirms the general opinion that the performance (GDP) of the Hungarian economy was driven by exports. At the same time, the trend lines also illustrate well that the efficiency of this driving force was rather weak.

On the average of 17 years, exports had to increase by 10 units every year for a 1-unit growth in GDP. But what happened in each year? This is what *Chart 3* shows.

GDP and the annual fluctuations in exports

It is somewhat surprising that there seems to be no correlation between the annual growth in exports and the performance of the economy in the given year. A more thorough examination of Chart 3 does reveal some correlation: comparing the zigzags of annual export growth to the slowly moving changes in GDP leads to the discovery that the direction of the changes in exports and in GDP was the same in most of the years under review (there were major differences in dynamics only). However, the two factors moved in opposite directions in quite a number of years. The main underlying reason is that four or five sectors of the national economy account for most of the Hungarian exports, while in the near term the performance of the remaining sectors is practically independent of the developments in exports. But, then, what is the increase or decline in GDP closely related

GDP AND ANNUAL FLUCTUATIONS IN EXPORTS



* methodological change in 1995

Source: ÁSZKUT

to? In order to answer this question, we added a third line, domestic absorption, to the two trend lines (exports and GDP) of Chart 2 (see Chart 4).

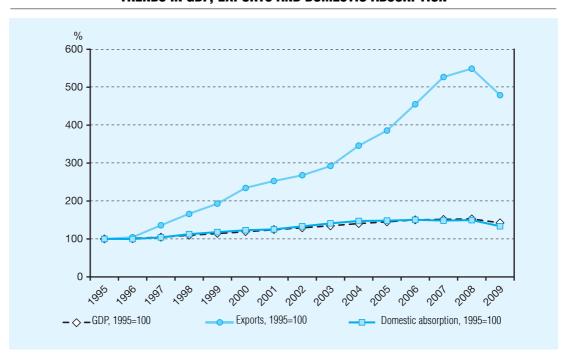
Trends in GDP, exports and domestic absorption

Chart 4 shows that the trend lines of GDP growth and of the increase in domestic absorption (using the measuring system of the chart) almost coincide, i.e. there is a very close correlation between the two. For a better demonstration of the correlation, the changes in GDP and domestic absorption are shown in a separate chart as well (see Chart 5), the measuring system of which was chosen in a way that minor deviations are also well distinguishable.

Trends in GDP and domestic absorption

Of course, Chart 5 also shows that there is a very close correlation between the changes in GDP and domestic absorption. To some extent this is self-evident, as export surplus or import surplus represents the only difference between the production and domestic absorption of GDP. In this respect, GDP is increased by two factors: the increase in domestic absorption and export surplus. Obviously, GDP growth is the most dynamic when an increase in domestic absorption is coupled with export surplus. (However, GDP may grow even if domestic absorption increases faster than import surplus, or if the export surplus is higher than the decline in domestic absorption.) Applying this approach in the assessment of the growth risks of the macroeconomic projection, it is primarily expedient to exam-

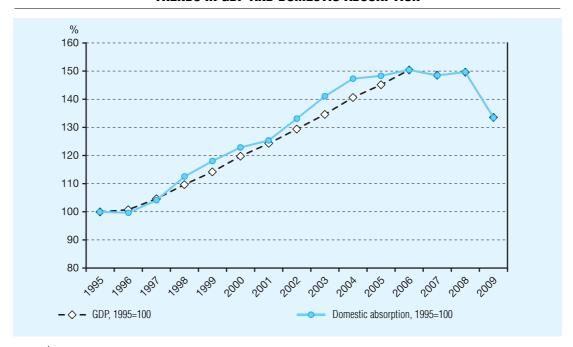
TRENDS IN GDP, EXPORTS AND DOMESTIC ABSORPTION



Source: ÁSZKUT

Chart 5

TRENDS IN GDP AND DOMESTIC ABSORPTION



Source: ÁSZKUT

ine the developments in domestic absorption and whether import surplus or export surplus is produced as a result of the changes in the domestic and export market competitiveness of enterprises operating in Hungary². Therefore, it is illuminating to examine the relationship between domestic absorption and the changes in the foreign trade balance in the last 15 years (see Chart 6).

Annual changes in domestic absorption and the developments in import surplus

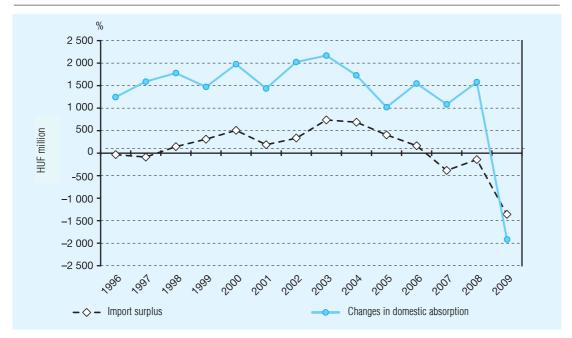
Even at first sight, Chart 6 shows the correlation that import surplus grew significantly in the years of rapid increase in domestic absorption, and the foreign trade balance of Hungary improved in years when the increase in domestic absorption was successfully kept under con-

trol. Indeed, the highest export surplus was achieved (in 2009) when domestic absorption declined considerably. All this warns of the fact that it is not possible to make GDP production significantly more dynamic by artificially increasing domestic absorption (for example through unfounded wage increases, tax reductions, social benefits or lending for consumption), as these measures lead to a rapid increase in the consumption of imported products. Accordingly, it is expedient to increase domestic purchasing power only to the extent of the improvement of the domestic competitiveness of the enterprises located in Hungary.

Based on Chart 6 we need to somewhat revise our views on the nature of export-oriented growth as well. Namely, it is clearly seen that between 1998 and 2007, i.e. during the ten years of export-oriented economic growth, an import surplus was produced in each year, i.e. the rapid export growth did not contribute to making the

Chart 6

CHANGES IN DOMESTIC ABSORPTION AND THE DEVELOPMENTS IN IMPORT SURPLUS (1996–2009)



Source: ÁS7KUT

Hungarian economy more dynamic through export surplus. But, then, how did exports influence the growth of the Hungarian economy? By providing (at least partial) cover for the increase in imports for the purposes of investment and consumption. A review of the economic trends of the last 15-20 years shows that as a result of the Hungarian economy becoming more open, we consumed and invested an increasing amount of imported products, but we were also able to export more.³ However, the improvement in the competitiveness of enterprises operating in Hungary was slower than the liberalisation of the economy. Consequently, a huge foreign trade deficit accumulated in the past years, which was partly financed by debt generating and partly by so-called non-debt generating inflow of foreign capital.

However, starting from 2008, an export surplus was produced, which is mainly attributable to the restrained domestic consumption and its subsequent decline as a result of the crisis in 2009, which led to a drastic fall in imports (exceeding the 12.7 per cent decline in exports). Exports grew dynamically again from 2010 on, but investment continued to decline, and household consumption did not increase. Consequently, the growth rate of imports was far below export dynamics. As a result of the difference between the two, Hungary achieved an unprecedented surplus in foreign trade. This trend continued in the first half of 2011 as well. Accordingly, the past one and a half years have been a rare period of the Hungarian economy when export surplus has been accelerating GDP growth. It is somewhat promising for 2011 that some growth in employment has already taken place in the sectors that dynamically expand their exports, i.e. already the growth in 2010 was able to mobilise the internal labour reserves that had been accumulated during the crisis. However, in these sectors a fundamental competitiveness factor is the continuous increasing of labour productivity, i.e. in these sectors even dynamic growth generates only a much more subdued increase in employment.

Of course, in the coming months we will continue the analysis of the trends affecting the Hungarian economy and of the impacts of the external and internal forces that change the trends, in order to base our risk analysis on the deepest possible exploration of the correlations. In this work we will continue to rely on the findings of research conducted by domestic research workshops.

FISCAL RISKS

Fiscal risks occur where there is a high probability that a budget item, economic process or macroeconomic parameter that significantly influences the balance of the budget considerably deviates from the values specified in the Act on the Budget or the government's projection substantiating it.

In the course of planning the budget, such risks can be identified at three points. Accordingly, we distinguish:

- so-called *inherent risks*, stemming directly from the economic (social etc.) environment;
- so-called *planning risks*, resulting from the methods of estimation, forecasting and planning applied during the preparation; and
- so-called *implementation risks*, which are encountered during the implementation of the budget.⁴

In order to explore inherent risks, it is necessary to examine the risks inherent in the economic developments that substantiate the revenue and expenditure items of the budget. In doing so, the RIHSAO will apply the analysis logic described earlier, and we making continuous efforts to develop our analysis tools. Traditional macroeconomic risk analysis would

be limited to an examination of inherent risks. However, the comprehensive fiscal risk analysis targeted by the RIHSAO should also cover the planning risks that originate from the errors of the macroeconomic projection for the given year and from the errors that might have occurred during the inclusion of the findings of the projection in the budget. The analysis by the RIHSAO may, first of all, only presume the existence of planning risks. However, based on these presumptions, the auditors can establish, for example by asking for the planning documentation to be submitted and by examining it, whether the planning mistakes were really made.

THE STUDY PRESENTING THE RISK ANALYSIS OF THE BUDGET

Based on the above, the question arises what the study of the RIHSAO presenting fiscal risk analysis will contain. We intend the study to:

- give a general overview of the grounding of the macroeconomic projection,
- define the uncertainties of the macroeconomic projections as fiscal risks, i.e. estimate what impact the developments in high-risk processes deviating from the projection have on the budget,
- numerically evaluate whether the planned appropriations of the fiscal revenues and expenditures that highly depend on the changes in macroeconomic parameters are in conformity with the macroeconomic projections of the government, and
- give an estimate of what risks the macroeconomic uncertainties pose in terms of the developments in the cash-based primary balance of the budget.

We hope that the study will provide useful assistance for the members of the FC, enabling them to give a well-founded opinion on the credibility and feasibility of the 2012 budget appropriation bill.

NOTES

- Based on the data of enterprises that employ at least5 people.
- ² I deliberately use this term instead of the expression "domestic enterprises", as from the aspect of the evaluation of export or import performance what counts is whether the given enterprise is operating on the territory of Hungary. It is another issue that in terms of competitiveness there is a huge difference between foreign-owned and Hungarian-owned enterprises, i.e. inadequate increase in competitiveness is mainly true for Hungarian-owned enterprises, which are not only

unable to export, but are losing domestic markets as well.

- ³ The first person plural is somewhat deceiving, as foreign-owned enterprises accounted for three quarters of exports, and basically it was them who implemented significant investment mainly by importing machinery and equipment.
- ⁴ Implementation risks occur where the feasibility of an appropriation requires measures to be taken by the executive bodies, but they are not taken or not taken completely.

LITERATURE

BÁGER, G. – PULAY, GY. (2008a): Analysis of the macroeconomic risks of budgeting (Method and value). *Public Finance Quarterly.* Third Issue, pp. 391–408

BÁGER, G. – PULAY, GY. (2008a): Major conclusions from the macroeconomic risk analysis of the 2009 budget bill. *Public Finance Quarterly*. Fourth Issue, pp. 580–600

BÁGER, G. – PULAY, GY. (2010): Világpiaci integrálódás hazai felzárkózás nélkül (World market integration without domestic catching up). *Polgári Szemle*. Issue 1, pp. 6–21

ÁSZ FEMI (Institute for Development and Methodology of the SAO) (2008a): Értékelő tanulmány a 2008. évi költségvetési törvényjavaslat

makrogazdasági megalapozottságának néhány összefüggéséről (Evaluative study on some correlations of the macroeconomic grounds of the 2008 budget appropriation bill)

ÁSZ FEMI (Institute for Development and Methodology of the SAO) (2008b): Értékelő tanulmány a 2009. évi költségvetési tervezés makrogazdasági mozgásterének néhány összefüggéséről (Evaluative study on some correlations of the macroeconomic room for manoeuvre in planning the 2009 budget)

ÁSZ FEMI (Institute for Development and Methodology of the SAO) (2008c): A 2009. évi költségvetés makrogazdasági kockázatainak elemzése (Analysis of the macroeconomic risks of the 2009 budget). Institute for Development and Methodology of the SAO, Budapest