

HUNGARIAN STATISTICAL REVIEW

JOURNAL OF THE
HUNGARIAN CENTRAL
STATISTICAL OFFICE

EDITORIAL BOARD:

DR. ESZTER BAGÓ, DR. PÁL BELYÓ, DR. KÁROLY FAZEKAS, DR. ISTVÁN HARCSA,
DR. PÉTER JÓZAN, DR. GÁBOR KARSAI, DR. MIKLÓS LAKATOS (editor-in-chief),
DR. VERA NYITRAI, DR. GÁBOR OBLATH, DR. PÉTER PUKLI (head of the editing committee),
DR. GÁBOR RAPPAL, DR. JÓZSEF ROÓZ, DR. ZSOLT SPÉDER,
DR. KATALIN SZÉP, DR. GYÖRGY SZILÁGYI

VOLUME 85

2007. SPECIAL NUMBER 11

*Studies published in the Hungarian Statistical Review reflect researchers' opinions,
which do not necessarily agree with the official position of the Hungarian Central Statistical Office
or of the institutions represented by the authors.*

Reproduction is allowed only with the indication of source.

ISSN 0039 0690

Published by the Hungarian Central Statistical Office
Editor in charge: dr. Péter Pukli
Executive editor: dr. Miklós Lakatos
Printed by the Xerox Magyarország Kft.
2007.434 – Budapest, 2007

Managing editor: Orsolya Dobokayné Szabó
Editor: Andrea Polyák
Technical editors: Éva Bartha, Ágnes Simonné Káli

Editorial office: Budapest II., Keleti Károly utca 5–7. Postal address: P.O.B. 51. Budapest, 1525.
Phone: (361)-345-6546, Telefax: (361)-345-6594,
Internet: www.ksh.hu/statszemle E-mail: statszemle@ksh.hu
Publishing office: Central Statistical Office, Budapest II., Keleti Károly utca 5–7.
Postal address: P.O.B. 51. Budapest, 1525. Phone: (361)-345-6000
The publication can be purchased at the Statistical Bookshop:
Budapest II. Keleti Károly utca 10. Phone: (361)-212-4348

CONTENTS

Globalisation and macroeconomic statistics: Problems of measurement, interpretation and international comparison – <i>Gábor Oblath</i>	6
An atypical relation between structural change and changes in labour input: Hungary in an international comparison – <i>Andrea Szalavetz</i>	24
Trends in external trade of the new member countries after three years of membership with special reference to their intra-trade – <i>András Inotai</i>	43
Social-policy dilemmas in Hungary within the context of EU membership: Some problems of poverty – <i>Klára Fóti</i>	75
The impact of EU accession on the agricultural trade of the Visegrád countries – <i>Judit Kiss</i>	93
Hungarian economic relations with the Arab world – <i>Tamás Szigetvári</i>	117

Foreword

In the last few decades the Hungarian Statistical Review has published an English version once or twice annually in order to enlarge the number of foreign readers and users of the papers and studies published in the journal.

This issue was compiled mainly by the researchers of the Institute for World Economics of the Hungarian Academy of Sciences. The topics of the studies introduce the main characteristics of global economic trends and provide a detailed picture about the state of Hungary in a transitional world. The studies are characterized by arguments based on international and domestic statistical databases. One part of the studies analyses the consequences of EU accession of Hungary and the main processes and tendencies since the accession. Studies based on statistical information create a good opportunity to the cooperation between the Hungarian Central Statistical Office responsible for the set up and publication of statistical data and the Institute for World Economics of the Hungarian Academy of Sciences the user of these data.

We hope that the English issue, the result of cooperation between the Hungarian Central Statistical Office and the Institute for World Economics of the Hungarian Academy of Sciences, will enlarge the number of the readers of the journal and offer a help in understanding selected features of globalisation and effects of EU membership.



Péter Pukli

President of the Hungarian Central
Statistical Office



András Inotai

Director of the Institute for World Economics
of the Hungarian Academy of Sciences

Globalisation and macroeconomic statistics: Problems of measurement, interpretation and international comparison*

Gábor Oblath

PhD, member of the Monetary
Council of the National Bank
of Hungary

E-mail: oblathg@mail.datanet.hu

The article addresses a general problem and two specific economic-statistical issues related to globalisation. The general point concerns certain conflicting trends involved in globalisation: while the macroeconomic importance of, and the demand for statistics on international transactions increases, it is becoming more and more difficult to apply the standard distinctions between “domestic” and “cross-border” real and financial economic transactions. The effects of this conflict are primarily experienced by institutions responsible for supplying statistics. However, users of economic statistics also face challenges deriving from trends associated with globalisation. Economic analysts tend to interpret national developments in international comparison on the basis of a few headline indicators, but this may result in misleading conclusions. To illustrate this point, two examples, both related to the experiences of the new members of the EU, are discussed: 1. the interpretation/comparison of income convergence on the one hand, and 2. that of external imbalances on the other. As pointed out, it is necessary to look beyond the “big picture” in order to reach conclusions that are sound both from an economic and a statistical point of view.

KEYWORDS: Economics.

International analyses, comparisons.

Qualitative questions of official statistics.

* This article is based on the keynote speech presented at the 93rd DIGNS Conference, 19-21 September 2007, Budapest, “Globalisation and economic statistics: a ‘multifunctional’ user’s perspective”. The views expressed are the sole responsibility of the author and do not necessarily reflect those of the National Bank of Hungary or its Monetary Council.

The impact of globalisation on economic statistics is a highly topical and increasingly relevant issue for both statisticians, who provide, and economists, who use macroeconomic statistics. The mounting cross-border interactions and the increase in openness of nations involve significant challenges for suppliers of macroeconomic data, but the interpretation and application of statistics – the task of economic analysts – is also becoming more difficult. Though we shall address some problems that statisticians have to face, our focus is on the interpretation and comparison of macroeconomic figures in the present era of globalisation.

The article consists of two main parts. First, we discuss certain conflicting trends of economic globalisation and some of its implications for suppliers and users of economic statistics. Second, we deal with two closely related macro-statistical issues that have to do with the interpretation of statistics: 1. real income levels/convergence, and 2. the size of external imbalances.

1. Globalisation and economic statistics from the perspective of suppliers and users of statistics

From the point of view of real and financial economic developments, globalisation involves the increasing openness, as well as intensifying interactions and interdependence of national economies. From the point of view of economic statistics this results in two contrasting trends.

1. On the one hand, regarding business operations (decisions of economic agents), the relevance of legal national borders is fading. This, among others, is due to the increasing internationalisation of production (expansion in the activity of multinational companies, new forms of trade in services, growing importance of off-shore companies, etc.) and the migration of individuals (“labour”). As a result of these developments, it is becoming more and more difficult to apply the standard definitions regarding “internal” (“domestic” or “national”) vs. external (“foreign”) economic activities. Therefore, the dividing line between “resident” and “non-resident” economic units – a major distinction for national accounts – is also fading.

2. On the other hand, globalisation involves the increasing macro-economic importance of international transactions (both real and financial), as well as cross-border ownership of financial assets for national economies.

The two trends accompanying globalisation are in clear conflict with one another, which is primarily experienced by the national institutions responsible for compiling and providing economic statistics. From the point of view of microeconomic agents, the distinction between “domestic” and “international” economic activities are becoming less relevant (moreover, in an attempt at “tax optimisation”, they may even have an interest in obscuring this distinction), while – due to their macroeconomic importance – governments, central banks, investors, international organisations, economic analysts, etc. would like to know more and more about expanding international transactions.

It is worth noting that these conflicting trends may involve an internal paradox for multinational companies, major drivers of globalisation. These business organisations are both important suppliers and users of data on international transactions. In their first capacity they might have several reasons to conceal certain aspects of their cross-border transactions, while as users – e.g. for building their business strategy, evaluation of country risks – they need reliable and accurate statistics on global transactions and asset-holdings.

Regarding the *effect of globalisation on users* of macroeconomic statistics, several users, in particular market analysts, interpret national developments in international comparison and, in order to simplify their task, tend to categorise/group countries according to a few and very simple “headline” indicators. The implication for statistical institutions is the increased importance of applying common international standards for ensuring comparability of national data. There is another implication as well, which concerns both statisticians and economists (familiar with macro-statistics): the education of the public in general, and market participants/analysts in particular, by calling attention to statistical indicators enabling a better understanding and/or a finer analysis of economic developments.¹

In the following we discuss two examples to show that it is useful to look behind the main figures, as this may lead to the reinterpretation (or, at least, refinement) of the “big picture” derived from headline data on national economic developments. Both examples address the challenges (increased difficulties) involved in international comparisons of macroeconomic developments in the era of globalisation. The first concerns the comparison of national real income levels and their changes over

¹ In this respect, the Hungarian Central Statistical Office (HCSO) has shown a good example in *KSH* [2007]. See: especially p. 52-56 on the macro-economy. <http://portal.ksh.hu/pls/ksh/docs/hun/xftp/idoszaki/mo/hungary2006.pdf>

time. The second example pertains to the cross-country comparison of external imbalances.

2. Relative income levels and income convergence

The terms “relative income level” and “income convergence”, respectively, are shorthand phrases, applied by economists, for expressing 1. per capita GDP of a country measured at purchasing power parity (PPP/PPS) in comparison with a reference country (USA) or a region (the EU); 2. the catching up of countries in terms of per capita GDP measured at PPP. GDP, however, is essentially an indicator of output, rather than income.² Since globalisation entails the possibility of increasing differences in per capita output on the one hand, and various measures of domestic/national income on the other, it is important to take the latter into consideration in comparative analyses related to the level of, and changes in, the real income of nations.

There are three directions for extending the simple comparisons based on GDP/capita, in order to capture certain macroeconomic effects of globalisation. Two of these are actually included in the statistical framework of national accounts (SNA/ESA), but one involves an amendment to the official system of indicators.

1. The first direction is the quantification/comparison of indicators of per capita national income (GNI, GNDI). A reason why the distinction between aggregate domestic output and national income may become more relevant in the era of globalisation is that factors of production, and, as a result, production itself can move easily among countries, which does not necessarily involve similar changes in the aggregate income of residents of a nation. For several countries there are significant differences not only in the levels, but also in growth rates of real national income vs. real domestic product.

2. The second, equally important, aspect of the distinction between output and income concerns the macroeconomic impact of changes in the terms of trade on aggregate domestic income, which is revealed by the indicator of real gross domestic income (RGDI). An important sign of globalisation is the tendency toward increased openness of countries (the rise in the ratio of external transactions to GDP). As a result, the relative impact of variations in the relative price of exports to imports tends to increase. By definition, the “level” of per capita RGDI cannot be interpreted at

² On this point see in particular Chapter XVI, paragraph 16.151. of the SNA or/and Chapter 10, paragraph 10.57. of the ESA.

current prices; it can only be measured at prices of a fixed base year. Therefore, it should be compared among countries (and to per capita GDP) by using constant, rather than current PPPs.

3. A third direction of extending international comparisons is relevant mainly for the less developed, in particular new, members of the EU (new member states – NMS). This extension goes beyond the difference between output and income, as it is related to the distinction between disposable income and disposable resources of countries. The reason why this is important for NMS is that while current transfers made to the EU budget are recorded as items decreasing disposable income (GNDI), there is no macroeconomic aggregate to indicate the opposite (positive) effects capital transfers from the EU on available resources. Therefore, a supplementary indicator (GNDI+capital transfers) may be useful in international comparisons involving less developed members of the EU.

We shall proceed in two steps in demonstrating the empirical/statistical relevance of these extensions to international comparisons based on per capita GDP. First we consider the impact of *implicit* real income transfers, associated with changes in the terms of trade, on the aggregate real income of countries. In the next step, the effect of *explicit* transfers (including net foreign income, as well as and both current and capital transfers) are taken into consideration. The distinction between implicit and explicit transfers is based on whether they have to be reconstructed by means of foreign trade price indices, or they are explicitly revealed in balance-of-payments statistics. It should, however, be kept in mind that transfer pricing is a potential channel for shifting foreign income between explicit and implicit channels.

2.1. The effect of changes in the terms of trade (implicit real income transfers)

If the price level of a country's exports increases more (declines less) than that of its imports, the real purchasing power of the country's revenues from exports over imports grows (and vice versa, if export prices increase less, or decline more, than import prices). Changes in the real purchasing power of exports over imports entail implicit real income transfers received (or made) by countries. Their macroeconomic impact is revealed by the indicator of real gross domestic income (RGDI).

RGDI is derived by adding "trading gain" (or loss, if negative) to GDP measured at constant prices, i.e.:

$$RGDI_t = (GDP_t/P_{GDP} + T), \text{ where}$$

$$T = (X_t - M_t)/P_{XM} - (X_t/P_X - M_t/P_M)$$

P_{GDP} denotes the GDP-deflator,

T is trading gain/loss,

X and M are, respectively, exports and imports,

P_X and P_M are price indices of exports and imports, respectively,

P_{XM} is the average of the two, and the t index refers to the time period.

By definition, if the terms of trade improve ($P_X > P_M$), T is positive, and it is negative, if the terms of trade worsen. The change in RGDI may be reflected by the difference between either

$RGDI_t$ and GDP_{t-1} , or

$RGDI_t$ and $RGDI_{t-1}$ (if $t-1 = t_0$, $RGDI_0 = GDP$).

Before presenting comparative data on RGDI and GDP, the question of accuracy of foreign trade price statistics has to be addressed. What if foreign trade price indices are inaccurate, and, as a result, the terms-of-trade index is under/over estimated? There are two major reasons why foreign trade price data may be distorted. The first is related to potential measurement errors: both the calculation of price indices for trade in services, and adjustments for quality changes in the case of manufactured products, involve serious difficulties. Second, as mentioned previously, firms may have incentives (“tax optimisation” in particular) to move profits from one country to the other by under/overpricing exports or/and imports. But whatever the reason, foreign trade price data and, therefore, the terms-of-trade index, might indeed be distorted; and perhaps more so in the present era of globalisation, than formerly. This, in turn, may appear to suggest the irrelevance of the aggregate real income measure reflecting the impact of changes in the terms of trade.

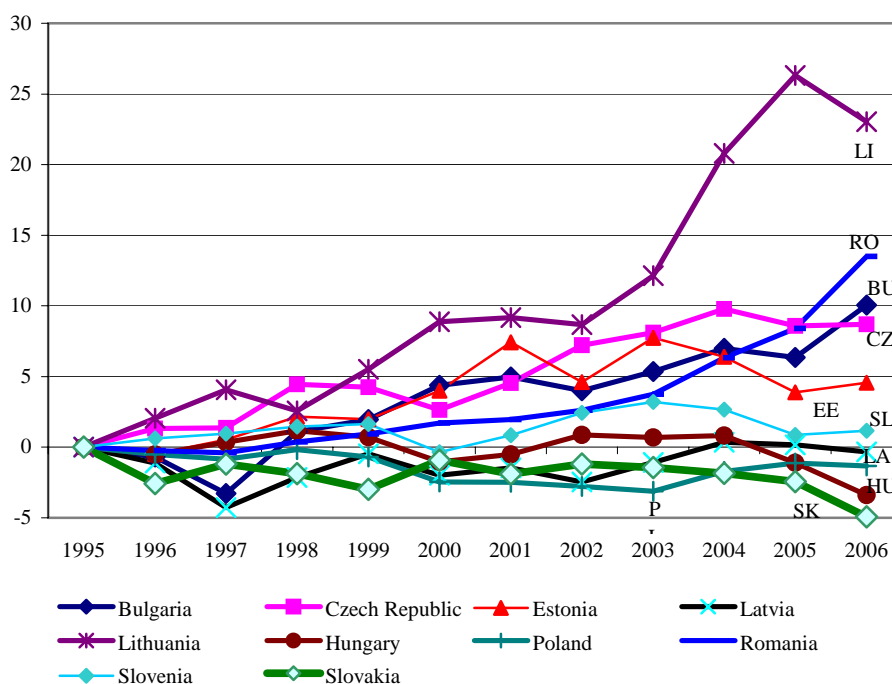
However, even serious distortions in foreign trade price indices do not imply the uselessness of the RGDI indicator. Just on the contrary. Assuming that there are significant measurement errors in foreign trade price indices, there should be opposite errors in the measured volume of exports and imports, thus of net exports and, as a result, real GDP as well. Therefore, the indicator reflecting the change in RGDI actually corrects for those potential errors of the GDP volume index that are related to (possible) distortions in foreign price indices.

The following examples focus on developments between 1995 and 2006 in the Central and East European (CEE) new member states of the EU. In some of these countries, significant and persistent differences can be observed between the growth of real GDP and RGDI.

As shown by Figure 1 four of the new EU countries (Lithuania, Romania, Bulgaria and the Czech Republic) have experienced not just large, but also enduring improvements in their terms of trade, which lead to much stronger growth in their domestic income than what is implied by the increase in real GDP. Slovakia, in contrast, displays a longer-term decline in its real income relative to its output. Poland

was characterised by a similar trend between 1999 and 2003; in Hungary's case the gap between the growth of income and output turned negative after 2004.

Figure 1. Cumulative difference between RGDI and GDP growth rates since 1995 (percentage points)

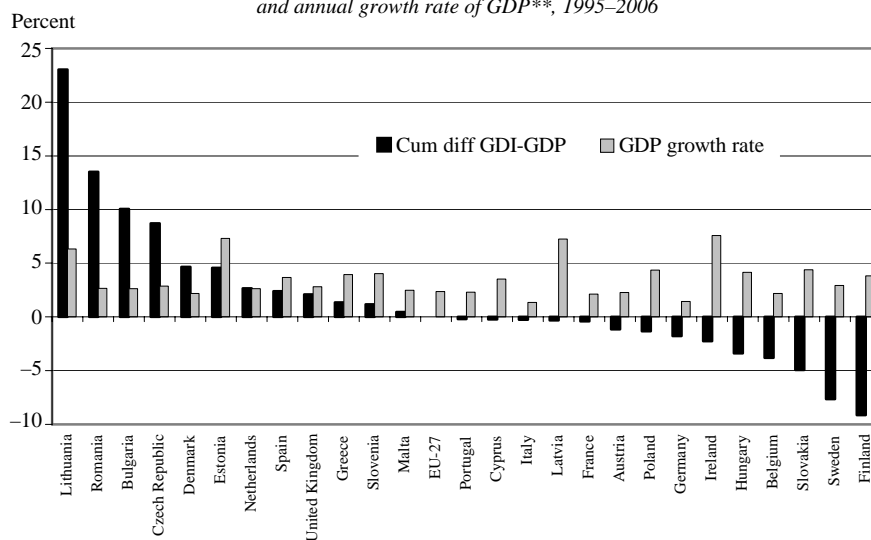


Source: Here and in Figure 2 and 3 the author's own calculations based on the AMECO database. http://ec.europa.eu/economy_finance/indicators/annual_macro_economic_database/ameco_en.htm

In order to gauge the macroeconomic significance of the difference between the growth of GDP and real domestic income (RGDI), it is useful to compare the cumulative gap between the two indicators to the growth rate of GDP. (See Figure 2.)

Figure 2 presents developments in Eastern Europe in a wider, European context. In the period 1995–2006, the cumulative gap between the increase of gross domestic income and GDP was the largest in the four CEE countries mentioned previously, while the CEE countries characterised by an opposite trend, perform relatively weakly in a wider European comparison as well. Figure 2 also shows average growth rates of GDP in the same period, demonstrating that, for several CEE countries, the increase in real GDP/capita is an inadequate (often misleading) indicator of per capita income convergence. This is clearly borne out by Table 1.

Figure 2. The cumulative difference between RGDI and GDP growth* and annual growth rate of GDP**, 1995–2006



* Percentage points.

** In percent.

Table 1

Per capita GDP and RGDI convergence: relative levels and the speed of convergence, 1995–2006
(EU 15=100.0)

Country	EU15=100			RGDI_06/ GDP_06	Average annual speed of convergence*/		Number of years of GDP/cap convergence to fill the RGDI-GDP gap**
	GDP/cap95	GDP/cap06	RGDI/cap06		Conv. GDP	Conv. RGDI	
					percent		
Romania	27.2	31.3	34.4	110.1	1.3	2.2	7.6
Czech Republic	63.1	71.0	75.6	106.4	1.1	1.7	5.7
Bulgaria	27.9	33.2	35.8	107.6	1.6	2.3	4.5
Lithuania	30.0	51.5	57.6	111.8	5.0	6.1	2.2
Slovenia	61.6	77.1	77.7	100.8	2.1	2.1	0.4
Estonia	31.1	59.6	60.9	102.1	6.1	6.3	0.3
Latvia	27.0	51.8	51.7	99.9	6.1	6.1	0.0
Poland	36.7	48.6	48.2	99.2	2.6	2.5	-0.3
Hungary	45.4	59.6	58.4	97.9	2.5	2.3	-0.9
Slovakia	40.0	52.4	50.8	97.0	2.5	2.2	-1.3

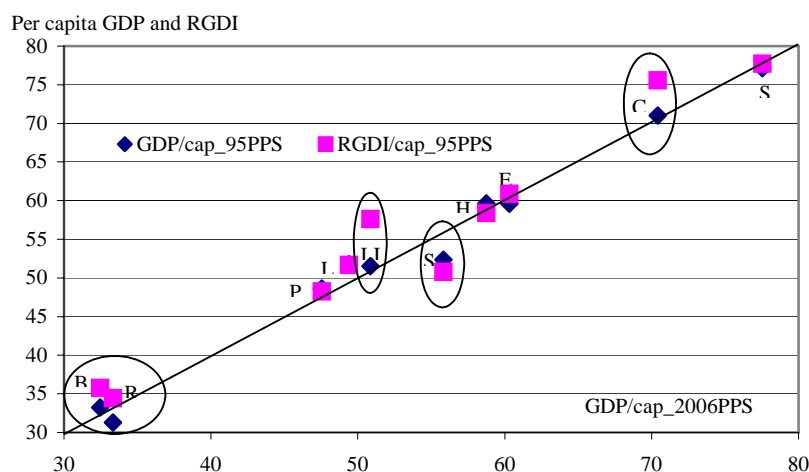
Note. * $\log(Y_{06}/Y_{95})/t$; where $Y = Y_i/Y_{EU15}$ (Y refers to GDP/cap or RGDI/cap; and t indicates the number of years considered; in the table $t = 11$); ** $\approx \log[(RGDI_{06})/(GDP_{06})]/(Conv_GDP)$. GDP/cap95, GDP/cap06 and RGDI/cap06: measured at constant purchasing power parity (PPS) of 1995.

Source: The author's own calculations based on the AMECO database

In the case of the four countries already referred to, the size of the cumulative gap between the increase in domestic income and output is striking. It corresponds to 2 to 7.5 years of real convergence (as measured by per capita GDP) to the more developed part of Europe. The reason why the relative size of the gap is so large for the first three countries is that they experienced very low average rates of GDP growth over the period considered. As their rate of GDP growth increases, the contribution of the terms of trade to income convergence is expected to diminish.

Differential growth rates between output and income naturally lead to differences in relative levels of per capita GDP and RGDI; this is shown by Figure 3.

Figure 3. Per capita GDP and RGDI relative levels, 2006
(EU 15=100)



Note. On the vertical axis per capita GDP and RGDI are measured at PPS of 1995.

In 2006 several CEE countries displayed considerable differences regarding their level of relative per capita income and output. The level of per capita income (measured at constant, 1995 purchasing power parity, PPS) was significantly higher than that of per capita output in the Czech Republic and Lithuania, while it was lower in Slovakia. The explanation of these contrasting developments requires further analysis, but they certainly have to be kept in mind when comparing the change in (“catching up”), and the level of, real incomes of the new member states of the European Union.

2.2. The effect of net income flows and transfers on comparative growth rates

On measuring national income (disposable resources), there are three types of explicit net transfers that have to be taken into consideration: 1. income flows, 2. cur-

rent unrequited transfers and 3. capital transfers. As discussed before, these are considered to be explicit because they are disclosed in balance-of-payments (BOP) statistics. In the following, the implications of these items for national growth rates are addressed.

First the economic and statistical content of macroeconomic aggregates corresponding to the notion of national income has to be clarified. There are two major items in BOP statistics that affect national income – net income flows and net unrequited current transfers– and there are two macro-indicators in the SNA/ESA reflecting the impact of these flows: 1. gross national income – GNI; and 2. gross national disposable income – GNDI.

These aggregates are defined as follows:

$$\begin{aligned} \text{GNI} &= \text{GDP} + \text{net foreign income,} \\ \text{GNDI} &= \text{GNI} + \text{net current transfers.} \end{aligned}$$

There is a third aggregate, which is not an “official item” in the SNA/ESA, but is highly relevant for the less developed (in particular, new members), of the EU:

$$\text{GNDI} + \text{net capital transfers.}$$

Although the latter is not an indicator of income, as discussed in Section 2, it is an important measure of national disposable resources. As to be shown later, this has direct implications for the interpretation of external imbalances as well.

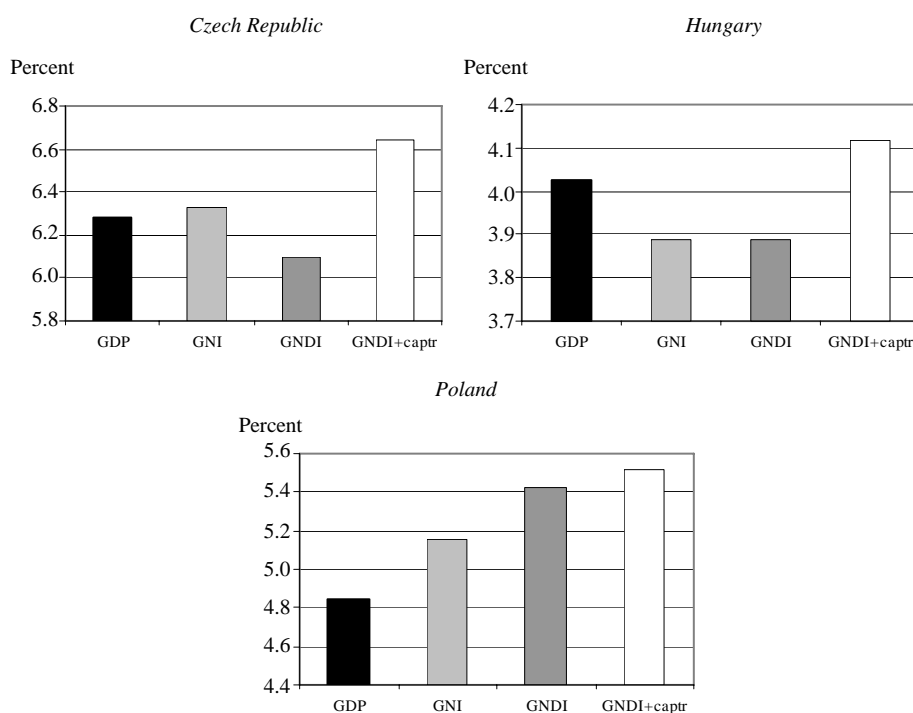
Since our focus is on growth rates of real national income/resources (as contrasted with real domestic output, GDP), the choice regarding the deflator for assessing volume changes has to be specified. Skipping the discussion of alternative possibilities, foreign income flows and current transfers are deflated by the price index of domestic final expenditures (as suggested in Chapter XVI of the SNA); while capital transfers are expressed at constant prices by the deflator of gross fixed capital accumulation. The reason for the latter choice is straightforward: capital transfers are meant for investments.

Figure 4 focuses at recent developments in three CEE countries, and demonstrates the importance of indices of income (disposable resources) vs. GDP.

While the scale of recent growth rates clearly differs among the countries (according to all of the indicators, Hungary experienced much lower economic growth in this period than the others), there is a common pattern: in all of the three countries the “headline” indicators, i.e., GDP and, to some extent GNI, show lower rates of growth than the one indicating the impact of capital transfers. This is explained by the fact that this was the period when transfers from the EU funds began to flow towards the new members of the EU. As these transfers are expected increase in the

next few years, the indicator reflecting the change in real disposable resources should continue to attract the attention of economic analysts.

Figure 4. GDP, GNI, GNDI and GNDI + capital transfers:
recent average annual volume changes, 2004–2006



Note. GNI, GNDI and GNDI + capital transfers are calculated by combining national account and balance of payments data.

Source: Here and the following figures: the author's calculations based on the Economy and Finance database of the Eurostat (http://epp.eurostat.ec.eu.int/portal/page?_pageid=0,1136173,0_45570701&_dad=portal&_schema=PORTAL)

To sum up, globalisation has important implications for the measurement and interpretation of changes (thus, convergence) in real incomes of nations. As countries become more open (the ratio of external transactions to domestic production increases), changes in the relative price between exports and imports tends to have an increasing impact on domestic real income. The neglect of these developments may lead analysts astray in international comparisons (see e.g. the contrasting experiences of the Czech Republic and Lithuania on the one hand, and Slovakia, on the other). Globalisation, in addition, involves increasing international income flows and trans-

fers. Beside net foreign incomes, the effect of transfers (including capital transfers) has also to be taken into consideration in assessing changes in disposable resources of countries. Therefore, the one-dimensional approach, focusing solely on the relative level (change in) per capita GDP at PPP, needs to be amended in several respects in order to capture the implications of globalisation for cross-country comparisons of relative income (performance) of nations. The following section addresses some corollaries of these points regarding external imbalances

3. The interpretation and comparison of external imbalances³

The increase in international gross and net capital flows is partly a reflection, partly an actual driving force of globalisation. Although net capital flows, by definition, involve external imbalances, the interpretation and international comparison of foreign imbalances is very far from being straightforward. Nevertheless, most economic analysts consider it to be relatively simple: they generally rely on a standard indicator, the ratio of the current account balance to GDP (CA/GDP). This is supported by the “received wisdom”, according to which a CA/GDP deficit above 3-5 percent is “dangerous”.⁴ However generally applied in cross-country comparisons, this indicator suffers from several weaknesses. The following discussion focuses on certain economic-statistical problems – partly related to the measurement/comparison of national income levels – of both the *numerator* (CA) and the *denominator* (GDP) of the CA/GDP ratio.

3.1. The numerator (CA)

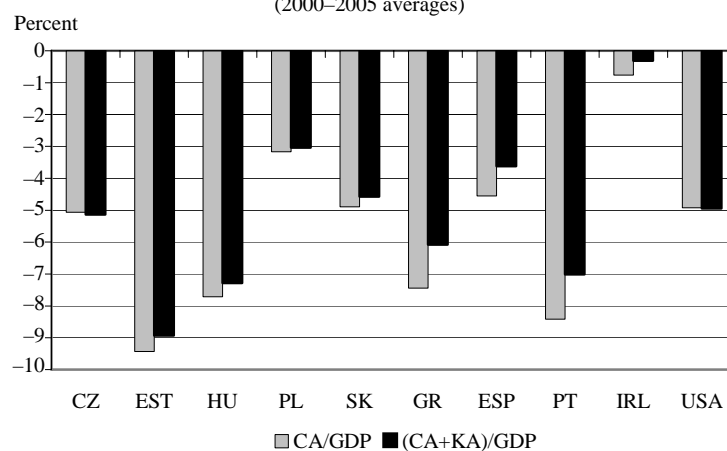
The point that *capital transfers* have to be taken into consideration in comparisons of real income holds a fortiori for comparisons regarding external imbalances. That is, the headline indicator of external imbalances – the current account (CA) of the balance of payments (BOP) – has to be corrected for international capital transfers, recorded in the capital account (KA) of the BOP. According to current statistical definitions, the financing requirement (net borrowing/lending) of a country is indicated by, thus, changes in net foreign assets of a country are associated with, the

³ This section draws on *Oblath* [2006].

⁴ See e.g. *UN* [2003] p. 15.: “Indicator: Current external account deficit/GDP. Interpretation: Ability to service imports and current rate of growth (warning signal if over 3%).”; and *Milesi-Ferretti-Razin* [1996] p. 1. : “...current account deficits above 5% of GDP flash a red light”.

consolidated balance on the current and capital account.⁵ As already discussed, due to the character of transfers from EU funds, the capital account is particularly important for the less developed EU members. (See Figure 5.) For the new member countries its importance has grown, and is certain to increase in the future.

Figure 5. The current and the current plus capital account balance relative to GDP in nine EU countries and the United States (2000–2005 averages)



Note. CA – current account balance; KA – capital account balance.

Table 2

The structure of net financing requirement* in three new members of the EU, 2005–2006 (in percent of GDP)

Denomination	Czech Republic		Hungary		Poland	
	2005	2006	2005	2006	2005	2006
CA+KA	-3,3	-5,6	-6,2	-5,1	-1,5	-2,6
CA	-3,5	-6,0	-7,0	-6,0	-1,9	-3,4
KA	0,2	0,4	0,8	0,9	0,4	0,8

* The current plus capital account.

Note. CA - current account balance; KA – capital account balance.

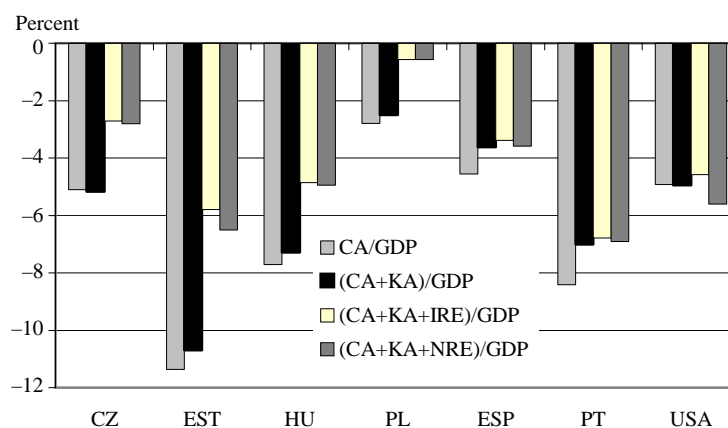
Source: Eurostat, Economy and Finance database.

⁵ Although the definition of the “current” and the “capital” account was changed many years ago (in 1993, in line with the System of National Accounts), most economic textbooks still rely on the former definitions. What was formerly (and in several textbooks, is still) referred to as the “capital account” is, according to the current definition, labelled as the *financial account*. Some items, in turn (e.g. certain foreign unrequited transfers), that had formerly been included in the current account are presently recorded in the *capital account*.

The balance on the capital account, as compared to the current account, is empirically relevant in the three Southern EU countries, especially in Greece and Portugal, where, as a result of this item, the size of the external deficit-to-GDP ratio shrinks by more than one percentage point in the first half of this decade. In Ireland the discrepancy is not an issue, while in the US there is practically no difference at all. In the new EU countries the effect is much smaller, but still observable (in Estonia, Hungary and Slovakia), and has recently been increasing. (See Table 2.)

Turning to the *second problem* with the numerator of the CA/GDP ratio, there is a challenge in the interpretation of *reinvested earnings* of foreign-owned companies, representing virtual outflows recorded on the income account of the BOP (and “backed” by a corresponding FDI-inflow in the financial account). Though a large size of (increase in) this item has a negative effect on the current account, it has no implications for actual external financing. Moreover, from a policy perspective, it is clearly “good news” (potential source of additional investments). The special features of reinvested earnings call for careful reading of current account data of countries where this item is significant and/or markedly changing. By implication, international comparisons of current account imbalances cannot be meaningful, if cross-country differences in reinvested earnings are disregarded. This special item in the current account is much more important for the new member states of the EU than for the older ones with which they can be compared. (See Figure 6.)

Figure 6. The current and the current plus capital account balance corrected for reinvested earnings relative to GDP in six EU countries and the United States (2000–2005 averages)*



* Czech Republic: 2001–2005; Estonia: 2002–2005; Poland: 2004–2005

Note. CA - current account balance; KA - capital account balance; IRE - inward FDI flows in the form of reinvested earnings; NRE - net reinvested earnings (as a component of net FDI flows).

In Figure 6, the ratio of “inward” reinvested earnings (RE) to GDP can be gauged by the deviation between the second and the third (or, for net RE, the second and the fourth) bar for each country. Clearly, this item is much more important in the new EU members (most notably in Estonia) than in the older ones. The reasons for these differences mainly have to do with the relative importance of gross and net FDI in the countries concerned, but they may also be related to the average “age” of foreign investments.⁶

By taking reinvested profits into consideration, our perspective regarding the relative size/burden of external imbalances in the countries compared significantly changes. In the new member countries the adjusted external deficit radically decreases (in particular in Estonia and Poland, but this applies to the Czech Republic and Hungary as well.) In Spain and Portugal, in contrast, the latter effect is negligible. Considering the full impact of the two adjustments discussed previously (the capital account and reinvested profits), as compared to the “raw” CA/GDP indicator, the relative size of the external deficit declines in all new member countries below that of Portugal, and comes close to (or under) that of Spain.

The important message conveyed by Figure 6. is that a simple comparison of CA/GDP ratios of countries with different experiences/prospects regarding capital transfers and reinvested earnings is almost certain to lead to mistaken conclusions with respect to the relative size/burden of external imbalances.

3.2. The problem with the denominator (GDP) and possible solutions

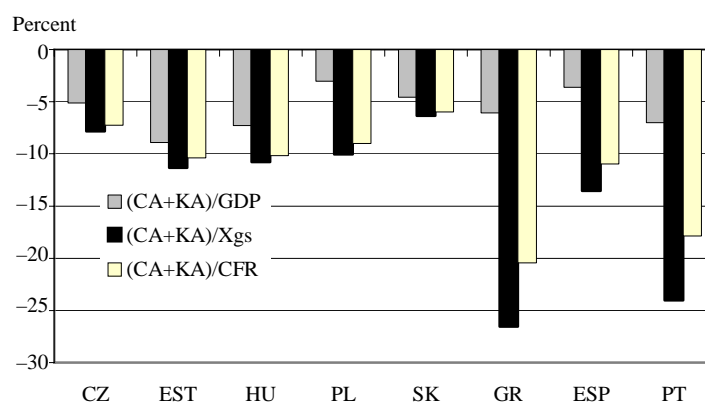
It is commonly believed that if the nominal magnitude of an external deficit is divided by the nominal GDP of the county, we get a “standardised” – i.e. internationally comparable – measure of an external imbalance. This belief, however, lacks economic foundations: rather than being a neutral measure, the deficit-to-GDP ratio is a strongly biased indicator. The reason is that international transactions (therefore, imbalances) are measured at international prices, while GDP is measured at domestic prices. The domestic price level, in turn, is an increasing function of the level of real economic development (this is the so-called Balassa–Samuelson effect).⁷ Thus, in less developed countries – due to the low relative level of non-traded (mainly service) prices – the CA/GDP ratio may overstate the actual burden (relative size) of external imbalances. What, then, is the economically satisfactory denominator?

⁶ On this point see *Brada–Tomsik* [2003].

⁷ Economists refer to this effect by quoting the relevant articles of two outstanding economists: *Béla Balassa* [1964] and *Paul Samuelson* [1964]. However, both economists mainly relied on the work of two statisticians: *Milton Gilbert* and *Irving Kravis* (*Gilbert–Kravis* [1954]). Therefore, the positive relationship between real economic development and the level of prices could just as well be referred to as “Gilbert–Kravis effect”.

The answer depends on whether we wish to handle the consequences of international differences in the prices of non-tradable services by altogether neglecting this sector, or by including the sector, but correcting for the price differences involved. In the first case, revenues from exports of goods and services may serve as an approximation for the earning capacity (though total current revenues may also be considered as a reference.) In the second case, “real” GDP (i.e. GDP converted at PPP) can be used for comparing the size of deficits. Figures 7 and 8 show the relative magnitude of external imbalances, depending on how the question is answered.

Figure 7. External (current + capital account) imbalances compared to GDP, to Xgs and to CFR (2000–2005 averages)



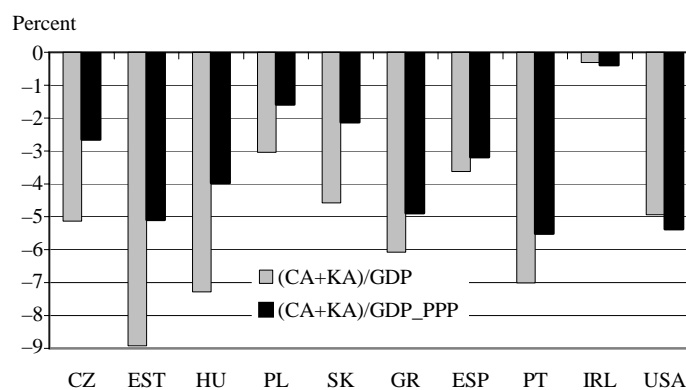
Note. Xgs – exports of goods and services; CFR – current foreign revenues.

If the ratio of deficit to revenues from exports of goods and services (the second bar) or to total current revenues (the third bar) are considered, the order of countries with respect to the relative size of their external imbalances – defined as the balance on current and capital transactions – change in a fundamental way. Most notably, external imbalances in Greece and Portugal appear to be significantly (in Spain, slightly) larger than in the new members, as a result of comparing deficits to actual foreign revenues, instead of the nominal GDP.

Figure 8 shows the effect of considering nominal, versus real (PPP-adjusted), GDP as a benchmark.

If external imbalances are compared to the PPP-adjusted, instead of the nominal, GDP, the relative size of external deficits decline significantly in the new Eastern members of the EU. As a result of this change in the denominator, relative deficits in the older members also fall somewhat, but by much less. The outcome of the comparisons shown in Figure 8 are similar to those in Figure 7, though the effect of switching the denominator is notably milder.

Figure 8. External (current + capital account) imbalances compared to nominal* and real GDP** (2000–2005 averages)



* Exchange rate-based.

** PPP-based.

To sum up, according to the conventional CA/GDP indicator some of the East-European members of the EU have much larger external deficits than certain older ones. This picture changes the more, the more the deficiencies of the CA/GDP ratio are corrected for. When the capital account and reinvested earnings are taken into consideration on the one hand, and deficits are compared to GDP valued at PPP, or exports (gross foreign earnings) on the other, external imbalances in the new EU countries appear to be milder than in the older ones chosen for comparison. Does this also mean that external deficits are less important in the new member states than in the three earlier EU members? Not necessarily. This only means that economically-based statistical standards have to be applied in international comparisons. In lack of these, comparative economic analyses cannot be meaningful.

*

Globalisation involves challenges not only for suppliers, but also for users of economic statistics. The simple observation of the headline macroeconomic figures may lead analysts astray in international macroeconomic comparisons. Therefore, there is a need for caution in comparing some of the most frequently used macroeconomic indicators across countries. Analysts should not accept the “big picture” at a face value, but rather try to look at the details behind the headline indicators.

In this respect, both statisticians and economists (familiar with economic statistics), have a lot to do. There is an important task in educating not only the general public, but also the professional users of macroeconomic statistics. Globalisation

naturally implies that the macroeconomic performance of nations (in particular, growth and external imbalance) is assessed in international comparison, but this calls for much finer analysis than what is enabled by the headline data, in the focus of public discussions.

References

- BALASSA, B [1964]: The purchasing power parity doctrine: A reappraisal. *Journal of Political Economy*. Vol. 72. p. 584–96.
- BRADA, J. C. – TOMSIK, V [2003]: *Reinvested earnings bias, the ‘Five Percent’ rule and the interpretation of the balance of payments – with an application to transition economies*. William Davidson Institute Working Paper. No. 543. Michigan.
- GILBERT, M. – KRAVIS, I [1954]: *An international comparison of national products and the purchasing power of currencies*. OEEC. Paris.
- KSH [2007]: *Hungary, 2006*. Budapest.
- MILESI-FERRETTI, G. M. – RAZIN, A [1996]: *Sustainability of persistent current account deficits*. NBER Working Paper 5467. Cambridge, MA.
- OBLATH G. [2006]: *A note on the interpretation and comparison of external imbalances*. WIIW Monthly Report. No. 7. Vienna.
- SAMUELSON, P [1964]: Theoretical notes on trade problems. *Review of Economics and Statistics*. Vol. 46. p. 145–154.
- UN [2003]: *National accounts: A practical introduction*. New York.

An atypical relation between structural change and changes in labour input: Hungary in an international comparison

Andrea Szalavetz

PhD, senior research fellow,
Institute for World Economics
of the Hungarian Academy
of Sciences

E-mail: aszalave@vki.hu

The paper investigates the quality of Hungary's structural-upgrading performance with a novel approach. It compares the evolution of the output structure with changes on the input side, more specifically, with changes in the quantity and quality indicators of labour.

We find that despite the similarity between advanced and Central European economies (CEE) in terms of structural upgrading, the upgrading of CEE's labour input was lagging much behind that of advanced economies. Hungarian performance was the worst among CEE in this respect.

While technical change in advanced economies was skill-biased in the surveyed period, and demand for highly-skilled workforce increased considerably, in the surveyed CEE (and especially in Hungary) demand for the relatively-skilled labour declined, and the skill structure of persons engaged deteriorated. Transfer-driven technical change in CEE's manufacturing industries has thus been complementary to raw, low-skilled labour and the thesis of capital/skill complementarity did not apply.

KEYWORDS: International analyses, comparisons.
Labour statistics, price and income statistics.

Intertransitional country differences in the extent of structural change have been subject to a large number of analytical papers that related these countries' restructuring and competitive performance to foreign direct investment (FDI) involvement by branches and to the technological features of both the new industry mix and trade specialization (Soós [2000], Landesmann–Stehrer [2002]).

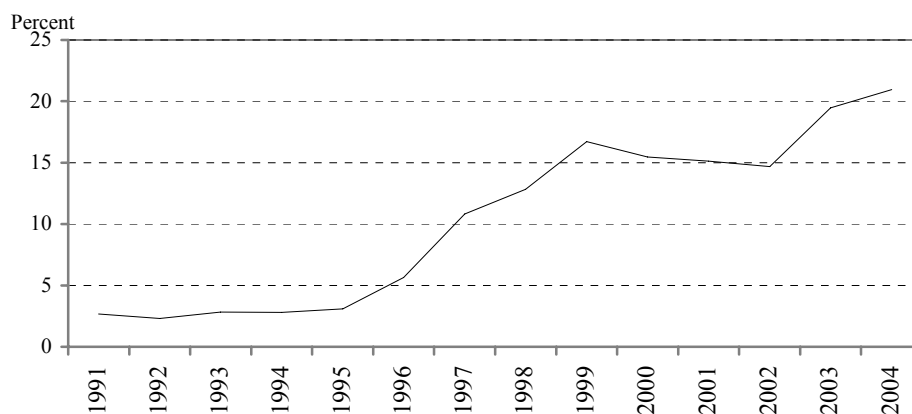
Early papers usually praised the countries with extensive structural change. The performance of transforming economies with an increasing specialization in high-technology industries was particularly acknowledged. Two main indicators were used to measure the quality of structural upgrading. The first one was the technological composition of production and exports, i.e. the share of high-growth, high-technological-opportunity industries. The second indicator structural upgrading performance was measured with, was the degree of export similarity. High values of export-similarity index suggested an advanced stage in the catching-up process.

Later papers have, however, pointed to substantial quality differences hidden behind the surprisingly high values of export-similarity indices of transforming countries (e.g. Dulleck *et al.* [2005]). Similarity of production structure may hide important quality differentials. Hence, these papers used other indicators to measure quality differences: export-unit values, quality-segment indicators, and indicators referring to the prevailing and very slowly diminishing productivity gap between the transforming and the advanced economies.

Realistic assessment of the quality of structural change is especially important for a small open economy like Hungary, with a spectacular and rapid foreign direct investment (FDI-) led structural-upgrading performance. The country's reintegration – following the political transition – into the global structure of world manufacturing, with the help of efficiency-seeking foreign investors, brought about a spectacularly increased share of high-tech products both in total Hungarian output and exports. The Figure uses office-accounting and computing machinery (NACE 30) and radio, television and communication equipment (NACE 32) as a proxy for high-tech industries and presents their increasing weight within total manufacturing output.

In spite of this spectacular shift to high-technology production (inter-industry upgrading), from time to time scholars have recalled that Hungary's competitiveness cannot be assessed as unambiguously positive. The evolution of the industry mix ought to be considered together with the country's technological potential, R&D indicators etc. to be able to provide realistic assessment. With poor performance in the latter field, the beneficial evolution of indicators in the former field reflects only cost competitiveness (Török–Petz [1999], Török–Borsi–Telcs [2005]).

The evolution of high-tech industries' share in total manufacturing output in Hungary, 1991–2004



Note. According to OECD and Eurostat classifications, high-tech manufacturing industries also comprise NACE Groups 24.4: Pharmaceuticals; 33: Instrument engineering and 35.3: Manufacture of aircraft and spacecraft.

Source: Here and in the following Tables the author's own calculations from EU KLEMS Database (www.euklems.net).

This study examines the quality of Hungarian structural upgrading performance with a new approach. It compares the evolution of the output structure with changes on the input side, more specifically, with changes in the quantity and quality indicators of labour. This method reconciles two usual approaches of development economics, 1. the accumulationist and 2. the structuralist. The former focuses on physical and human capital accumulation, considered as key drivers of development, catching up and productivity growth. The latter concentrates on the transformation of the sectoral and the industry composition of economic activity as a fundamental characteristic of growth and development. This paper deals with the interaction of changes in the composition of output with changes in the factor (labour)¹ use. With this method, the analysis of structural change is not restricted to the output side.

In principle, the upgrading of the composition of output ought to be in line with the evolution of inputs, i.e. with quality changes in factor use and in contribution of factors to growth. According to textbook theses, the correlation is very strong: quality changes in the structure of factor inputs imply increasing capital/labour ratios, as well as an increasing share of human capital within total inputs.

As opposed to this reasoning, in economies where FDI is the key driver of structural upgrading, the development of the input side may lag behind the upgrading of the output structure. The technological structure of these catching-up economies²

¹ The author analyzed the interaction between technical change and capital use and capital intensity in Szalavetz [2007].

output is similar to those of the advanced economies, while other indicators – capital/labour ratios, research and human capital intensities of production² – are comparable rather to those of the relatively underdeveloped economies.

This disharmony in the evolution of input and output indicators is puzzling, since in standard analyses that relate factor supplies to specialization or factor accumulation to structural change, the temporal sequence of the evolution of inputs and outputs is just the opposite. The traditional *Heckscher–Ohlin theory* states that countries' specialization patterns are determined by their relative factor endowments. In these analyses, changes in the structure of production (and exports) are preceded by changes in factor proportions. By Romalis ([2004] p. 67) “Countries that rapidly accumulate a factor see their production and export structures shift towards industries that intensively use that factor.”

Nonetheless, experiences of recently integrated economies that had undergone an FDI-driven structural upgrading justify an investigation “in the opposite direction”. In the following I will analyze whether the evolution of factor use has been in line with the FDI- and transfer-driven rapid upgrading of the composition of output. Can a growing similarity – beyond increased structural similarities between advanced economies and transforming economies – be detected in the structure of labour inputs as well?

I investigate four post-transforming economies: 1. Hungary, 2. the Czech Republic, 3. Slovakia and 4. Poland. I examine labour-input indicators in three industries, in the traditional industry of textile and textile products (TT), in a mature industry: transport equipment (TE) and in the emerging electrical and optical equipment industry (EOE).³

The analysis is based on EU KLEMS database. EU KLEMS project created a database on measures of economic growth, productivity, employment creation, capital formation and technological change at the industry level for all European Union member states from 1970 onwards. Data were made available for the public as of March, 2007 at www.euklems.net.

My investigation proceeds as follows. Section one examines intercountry labour-share differences, i.e. differences in the value-added share of labour compensation. This section analyzes whether this indicator can be regarded as a good proxy for la-

² The BERD / GERD ratio was 41.1 percent in Hungary, in 2004, compared to 70.1 percent in the U.S.; 70.4 percent in Germany; 57.8 percent in the Netherlands (*OECD* [1998]). According to Eurostat, in 2003, R&D expenditure/value added was 1.4 percent in manufacturing in Hungary. The respective value was 6.4 in the EU 25; 0.5 in Poland; 2.1 in the Czech Republic and 0.8 in Slovakia. R&D personnel intensity (R&D personnel/number of persons employed) was 0.7 percent in manufacturing while the respective indicators were 4.9 for the Netherlands; 6.7 for Finland; and 4.1 for Germany. This performance is similar at our CEE competitors: the respective indicators are 0.5 in Poland; 0.9 in the Czech Republic and 0.3 in Slovakia. (*Wilén* [2007]).

³ EOE is, of course, a much broader category than that of high-tech or emerging industries. Nevertheless, I use this aggregate since I intended to obtain a fairly large country coverage for comparison.

bour-intensity differences. Section two reviews the labour-input (quantity and quality) indicators of selected advanced and Central and Eastern European (CEE) economies. I scrutinize whether the evolution of labour use in the surveyed new member states has been in line with both their rapidly increasing development level and the advanced economies' respective evolution patterns. The analysis is characterised by a descriptive approach rather than an intention to make formal calculations.

1. Structural change and the evolution of labour share in total value added

It is not the purpose of this paper to provide a detailed analysis of CEEs' structural change performance. Simply for the sake of illustration we provide Table 1 that summarizes the increasing weight of electric and optical equipment industry in the surveyed countries' manufacturing value added.

Table 1

*EOE's share in total manufacturing value added
(percent)*

Country	1995	2004
Hungary	9.27	23.8
Czech Republic	7.41	11.9
Slovakia	5.88	11.0*
Poland	7.01	8.57

* 2005.

Note. Table 1 is restricted to NACE 30 and 32 since these two industries are the ones that were more or less newly established by efficiency-seeking foreign greenfield investments, and the performance indicators of which showed a spectacular evolution.

The question this paper investigates is whether the spectacular changes in the output structure, as shown in Table 1, have also been accompanied by similar changes in the quality of labour input.

As it was argued before, specialization in the fields of high-technology opportunity does not necessarily reflect technological competitiveness. With quickly increasing production fragmentation the previous strong relation between technological spe-

cialization and technological competitiveness has considerably weakened. Countries can feature high revealed comparative advantage in fast-growing technological fields without substantial own R&D activity and technological capabilities, i.e. capabilities that exceed production and technology assimilation (e.g. innovation-generation capability). Therefore, occupations, rather than industries, should be regarded as the basic units of analysis: a country's or a region's competitiveness and the real local human-capital intensity of apparently technology-intensive industries are reflected by its occupation mix rather than its industry mix (*Feser [2003]*).

Since detailed statistics on labour-force skills are available only in a few countries, I rather examined, whether the indicator of "labour compensation as a percentage of value added" can be applied to assess the quality of changes in the output structure. My working hypothesis was that a higher than the international industry-average value of this indicator would reflect a higher than the average labour intensity in a specific country. Table 2 presents the share of compensation of employees in the total value added of the three selected industries.

Table 2

Compensation of employees over value added, 2004
(percent)

Country	TT-industry	TE-industry	EOE	Deviation
Austria	49.8	51.2	59.0	5.0
Czech Republic	70.5	50.0	61.5	10.3
Finland	70.2	83.8	41.5	21.6
France	66.8	63.1	81.4	9.7
Korea*	62.4	61.7	41.6	11.8
Poland	68.1	44.1	45.2	13.6
Hungary	81.5	41.7	42.3	22.8
Mexico*	48.5	30.8	53.5	11.9
Germany	68.7	81.0	75.6	6.2
Spain	72.3	68.0	65.4	3.5
Slovakia	83.1	37.6	52.2	30.0
USA	71.2	80.2	80.8	5.4
Average	68.8	59.7	56.4	
Deviation	12.4	16.0	16.8	

* 2003. The source of these data: *OECD [2005]*.

As it can be seen, with the exception of some countries (Finland, Hungary, Slovakia) the intercountry dispersion of labour shares exceeds the interindustry devia-

tion of the indicator. Although the value-added share of the compensation of employees is higher on the average in the traditional labour-intensive TT industry than in the other two industries, intercountry differences are quite large even in this industry. It is puzzling that the relation between the surveyed indicator and the relative development level of the countries does not seem very strong. Data do not support my hypothesis of a larger-than-the-average labour share in the relatively underdeveloped countries which could be expected to specialize in unskilled labour-intensive screw-driver operations within industries classified as technology-intensive.

Analysis based on wage convergence or the lack of it would be misleading, since in relatively low wage countries such as Hungary or Slovakia the value of the indicator in the TT industry is much higher than the international average. Nevertheless in Austria – a country with a relatively high wage level compared to, say, Spain⁴ – the value of the indicator is systematically lower in all the three surveyed industries than the respective Spanish values. Therefore, explanation for the previous results ought to be found elsewhere.

In Korea the value of the indicator is quite high both in TT and TE industries. In recent decades Korean firms have implemented sizeable investment in modern production machinery embodying state-of-the-art technology (similarly to other South-east Asian economies) in order to compensate for increasing labour costs. According to *Lim* ([1999] p. 17.) the machinery and equipment stock per worker has increased 3.5fold at constant prices in the manufacturing sector between 1970 and 1990. Increase has been much higher in traditional industries: in the shoe industry a more than twenty-fold, in the textile industry a 5.3fold and in the food industry a 5.8fold increase can be observed. At the same time, significant changes took place in the employees' skill composition: the share of highly-skilled and well-paid technicians and employees with tertiary education increased considerably (*Loo* [2002]).⁵ As a consequence of these changes Korea has become similar to advanced economies in the sample. High labour share in the TT industry reflects a relatively high share of skilled workers, specialization in high value-adding activities and industry segments. In advanced economies, the restructuring of the textile and apparel industries has been marked by extensive investment in modern machinery, while changes in the composition of the labour force have been in line with the thesis of capital skill complementarity (*Griliches* [1969], *Goldin–Katz* [1998]).

As opposed to the foregoing reasoning, the outstanding high value of the indicator in Hungary's and Slovakia's TT industries is the result of completely different tendencies. Transformation recession as well as the collapse of the Council for Mu-

⁴ In industry and in services the Spanish wage level was 61-63 percent of the Austrian level in 2002. (Source: *Mittag* [2006] the author's own calculations).

⁵ *Loo's* [2002] data refer to TT industry in Hong Kong. Nevertheless, changes in employees' skill-composition were similar in the Korean TT industry as well.

tual Economic Assistance (Comecon) market and intensive import competition hit TT industries relatively harder than other manufacturing industries. Undercapitalized Hungarian actors failed to carry out the painful but efficient restructuring steps their advanced economy competitors had implemented. As the industry was unable to attract FDI, its deteriorating performance indicators hardly improved even after the transformation recession. TT industries in these countries are characterised by a relatively large weight of outward processing.⁶ In outward processing the compensation of employees accounts for the dominant part of value added, since the material to be processed (and in some cases also the machinery) is in the contractor's ownership. The contractor assumes responsibility for the design and the technical specifications; it organizes for logistics, marketing and sales. As a result, labour share accounts for a very high percentage of the processing firms' value added. The high value of the surveyed indicator therefore fails to reflect high competitiveness or high technology- and human-capital intensity of the industries in question. What the high value of the indicator suggests is just the opposite: adverse perspectives and vulnerability.

The evolution of the level of labour share in value added did not allow for unambiguous conclusions concerning the quality of production activity. I assumed that within technology-intensive industries, relatively underdeveloped economies would specialize in activities characterised by higher-than-the-average labour intensity, thus labour share in these countries will exceed the industry average. However, data in Table 2 show opposite results: labour share in the EOE industry is higher in the advanced economies, while in catching-up countries this share is lower than the international average.

The high value of the surveyed indicator in advanced economies can be explained with the fact that in these countries a large part of EOE industry value added stems from production-related services, including R&D, design, marketing, etc., rather than from manufacturing. These services feature much lower capital/labour ratios than processing activities, and their (skilled) labour intensity is higher than that of manufacturing. Physical processing activities are outsourced to relatively lower wage catching-up economies.

The indicator's lower-than-the-average value in these countries can be explained with the fact that although the processing activities local producers undertake are more labour-intensive than the international average in this industry, production activity started as a result of foreign greenfield investments and has been performed with high-value, state-of-the-art machinery (characterised by significant depreciation rate). Furthermore, the share of operating profit as well as the balance of taxes and subsidies can also be different from the ones prevailing in advanced economies which all have an impact on the value of the labour share.

⁶ Ninety percent of sales of some industries within the Hungarian apparel industry were realized within the frame of outward processing contracts even in the 2000s. (*Lázár* [2003]).

In sum, one can conclude that similar labour share values mask large differences in the quality composition of the labour force, as well as in the capital/labour ratios or in the skill levels of local operations. From comparative levels of the labour share – without complementary indicators (e.g. the share of white-collar workers or other, even more detailed occupational data and/or the R&D-intensity of production, unit value of exports, etc.) – no reliable conclusions can be drawn concerning the quality features of the output. Analysis of the relation between changes in the composition of output and labour input has to be carried out with the help of other indicators.

2. Quantity and quality indicators of labour input

In this section I will compare the evolution of simple quantity indicators of labour use (number of employees, number of hours worked). International comparison in Table 3 and 4 suggests that although there was an across-the-board reduction in manufacturing's labour use, substantial intercountry and interindustry differences can be observed in the extent of this reduction.

Table 3

*Changes in the number of employees in manufacturing, 1995–2004
(1995 = 100)*

Country	Changes in numbers
Austria	91
Finland	105
France	92
Germany	90
Spain	121
USA	85
Hungary	114
Czech Republic	92
Slovakia	86
Poland	80

According to *Amil-Giannoplidis-Lipp-Lingua* [2007], there is a strong correlation between the technology intensity of an activity and the rate of employment

growth. The referred authors established four groupings of manufacturing activities to reflect differing levels of technology intensity (1. high technology, 2. medium-high technology, 3. medium-low technology and 4. low technology). They showed that EU 27 manufacturing activities, classified into different groupings by technology intensity, exhibited different evolution patterns in terms of employment in the period between 1995 and 2006. Low-technology industries have experienced the largest reduction in employment. In technology-intensive industries employment started to fall only after 2000, but reduction was sharp from that time on.

As for intercountry differences, Table 4 reveals that the highest increase in labour input can be observed in the surveyed relatively underdeveloped economies pursuing an FDI-driven catching-up strategy. The number of employees or the hours worked increased much slower even in Finland which otherwise rapidly increased its specialization in EOE industries.

Table 4

Evolution of labour input in EOE and TE industries, 1995–2004
(1995 = 100)

Country	EOE	TE-industry	EOE	TE-industry
	Number of employees		Hours worked	
Czech Republic	141	122	135	116
Slovakia	143	115	143	118
Hungary	217	197	207	193
Poland	84	76	83	77
Austria	84	135	80	119
Finland	124	86	127	82
France	91	101	86	97
Germany	89	118	84	102
Spain	114	122	113	119
United Kingdom	74	99	72	98
United States	81	90	80	88
EU 15	91	107	89	100

Quantity indicators of labour input ought to be complemented with a review of intercountry differences in the skill intensity of production. In a dynamic setting, the evolution of labour use has to be examined together with changes in the skill mix of

the labour force. The (rising) share of non-production workers is a good proxy for (increasing) the skill intensity of production (*Berman–Bound–Griliches* [1994]). Since only a few countries publish industry-level data on the share of non-production workers I rely (partly) on anecdotal evidence when claiming that skill intensity – proxied by the previous indicator – of the surveyed industries in advanced economies has significantly increased in the last decade.

According to *Pilat and Wölfl* ([2005] p. 19.), in Austria and in Italy 40 percent of all manufacturing employees was in reality engaged in service activities rather than in physical processing in the early 2000s. In the Netherlands the respective figure was as high as 58 percent, while in less developed economies (e.g. Portugal, Greece) it was about 30 percent. *Nunnenkamp* [2005] documented the decline (from 76.2 percent in 1992 to 70.2 percent in 2003) of the share of production workers in the German vehicles industry. Changes were spectacular in the apparel industry of Canada. There was a significant (25%) reduction in the overall number of employees between 2003 and 2005, and in this short period the share of non-production workers almost doubled: from 45 to 84 percent. (The Canadian Apparel Industry: The Shape of the Future. Apparel Human Resources Council. www.conferenceboard.ca/education/symposium/partners2004/presentations/partners04_rivard.pdf) In the United States the share of production workers also declined between 1995 and 2005 (Annual Survey of Manufactures <http://www.census.gov/econ/overview/ma0300.html>): from 95.5 to 83.7 percent in the textile industry, from 95.5 to 76.5 percent in the apparel industry, from 91.7 to 71 percent in the transport equipment industry.

In contrast, the upgrading of employees' skill mix in manufacturing has been very slow in Hungary and in the other surveyed catching-up economies. Irrespective of the direction of the changes in employment, i.e. whether there was an expansion or a reduction in the employment of the given industry, the ratio of non-production/production workers hardly increased. Employment in TT industry, for example, fell by more than 50 percent between 1995 and 2005 in Hungary. Meanwhile the increase of the ratio of non-production/production workers was hardly noticeable: from 14.3 to 14.7 percent. However, employment in EOE industry doubled in this period. At the same time the surveyed ratio increased from 23.7 only to 27.5 percent. As for the TE industry data suggest even a deterioration of quality: 82 percent employment growth and a reduction in the non-production/production ratio from 37.4 percent in 1995 to 25.3 percent in 2005 (HCSO: *Statistical Yearbooks* [1996], [2006]. www.ksh.hu).

Crinó [2005] documented the evolution of the skill ratio (i.e. non-manual employment relative to manual employment) in selected Central European economies. According to his calculations, relative employment of skilled workers in manufacturing – proxied by the ratio between the number of non-manual and manual employees – has shown a decline in the case of Hungary and the Czech Republic (from 0.29 in 1993 to 0.25 in 2001 and from 0.38 to 0.33, respectively). In Poland, the ratio has

slightly increased since 1994 (0.28), and in 2001 it amounted to 0.31. The picture is gloomy at the industry level as well, with Hungary showing far the poorest results, as presented in Table 5.

Table 5

Ratio of non-production to production workers

Industry	Hungary		Poland		Czech Republic	
	1993	2001	1994	2001	1993	2001
Textile and textile products	0.16	0.13	0.18	0.16	0.25	0.21
Transport equipment	0.34	0.26	0.34	0.32	0.40	0.36
Electrical and optical equipment	0.39	0.23	0.39	0.43	0.48	0.32

Source: Crinó [2005].

The adverse changes documented by *Crinó* [2005] are attributable to foreign investors' strategic approach towards their newly acquired local subsidiaries. The new owners closed down the marketing and sales departments, design labs and R&D labs of the newly acquired subsidiaries since they considered them as unnecessary under the circumstances of exclusively intra-firm deliveries and manufacturing according to the owner's technological specifications. In most cases even the procurement function became superfluous as the owner-customer organized for the timely delivery of the raw material and components necessary for the subsidiary's production. In this way the local companies that used to perform each single corporate function have become single-functional production facilities within their owners' organization. This has led to substantial labour shedding of skilled, white-collar workers, in many cases in excess of relatively unskilled blue-collar workers. Although this strict division of tasks and corporate functions began to change at the end of the 1990s, changes are slow to manifest.

Another indicator – quantified in EU KLEMS Database (www.euklems.net) – that sheds light on the quality of labour inputs is the share of hours worked by high-skilled persons engaged, in total hours worked. Table 6 shows the evolution of this indicator.

The situation revealed in Table 6 is slightly less gloomy in the case of the surveyed catching-up economies than the one reported by *Crinó* [2005], probably because alongside to pure processing activities local subsidiaries in CEE have also assumed increasingly some relatively skill-intensive production-related services in the past couple of years (after 2000). Locally performed production-related services included product

and/or process R&D, logistics, customer-relationship management, etc. Nevertheless, the evolution of this indicator is far slower than in advanced economies.

Table 6

*Hours worked by high-skilled persons engaged in total hours worked
(percent)*

Country	Manufacturing			IT- industry		EOE		TE-industry	
	1990	1995	2004	1995	2004	1995	2004	1995	2004
Austria	3	4	7	1	4	5	9	5	9
Finland	18	23	28	16	18	27	35	27	35
France	5	6	8	4	4	8	10	8	10
Germany	6*	7	9	2	3	13	15	13	15
Spain	6	7,5	13	3	7	15	22	8	15
United Kingdom	5	8	13	5	9	8	13	8	13
United States	18	20	25	11	12	32	44	23	29
Hungary	.	8	10	4	5	9	10	9	10
Czech Republic	.	6	7	3	4	7	8	7	8
Slovakia	.	6	8	4	4	7	8	7	8
Poland	.	7	12	4	8	9	14	9	14

* 1991.

Source: EU KLEMS Database.

Another indicator suggesting the lagging quality improvement of employees' skill composition in the surveyed catching-up economies is the persisting large gap between advanced economies' and the CEEs' apparent labour productivity. (See Table 7.)

A further method to investigate quality changes in labour input is to compare the evolution of labour services – an indicator that combines both the quality and the quantity of labour as a production input – with the evolution of the pure quantity indicator of labour input (hours worked). In cases of skill upgrading, i.e. quality changes in employees' skill mix, increases in labour services exceed increases in hours worked. Similarly, if in a given industry total labour input decreases but in the meantime skill upgrading occurs, the reduction of labour services is inferior to the decrease in the hours worked. Table 8 compares the gap between the evolution of labour services and that of hours worked in the surveyed economies.

Table 7

Apparent labour productivity in the surveyed industries, 2004
(value added per employee, 1000 euros)

Country	TT-industry	EOE	TE-industry
Austria	53.8	76.3	87.9
France	48.2	56.9	74.8
Germany	43.3	67.1	72.5
Finland	40.2	116.6	45.0
Spain	22.8	41.6	46.7
Hungary	5.8	23.6	32.0
Czech Republic	8.3	14.4	21.0
Slovakia	5.9	12.5	26.5
Poland	7.3	18.4	17.5

Note: Slovakia and Hungary 2005. Applied euro-conversion rates: Hungary: HUF 248; Czech Republic: CZK 32; Slovakia: SKK 38.4; Poland: PLN 4.5.

Source: The author's own calculations from EU KLEMS Database.

Table 8

Labour services and hours worked, volume indices, 2004
(1995 = 100)

Country	TT-industry		EOE		TE-industry	
	Labour services	Hours worked	Labour services	Hours worked	Labour services	Hours worked
Czech Republic	61	54	139	135	118	116
Slovakia	82	80	143	143	119	118
Hungary	74	79	176	207	163	193
Poland	56	55	87	83	79	77
Austria	63	59	83	80	123	119
Finland	77	67	133	127	88	82
France	58	52	90	86	101	97
Germany	58	55	87	84	107	102
Spain	114	108	121	113	121	119
United Kingdom	45	37	80	72	108	98
United States	49	46	89	80	92	88

There are only two countries (Finland and the United Kingdom) where the gap between the two indicators is significant in each of the surveyed industries, pointing to an across-the-board skill upgrading and a switch to quality competition.

Catching-up economies' skill-upgrading performance lags much behind the one in advanced economies. In Hungary, the situation is even worse than the case of a simple time lag: the evolution of the surveyed indicators does not conform to the one in advanced economies. The increase in hours worked exceeds that of labour services (and similarly, the reduction of hours worked in the TT industry is smaller than that of labour services). Nevertheless this points to fairly good performance in employment creation. However, economic-policy decision makers ought to be concerned with the other side of the coin: with the increasing vulnerability of a strategy based purely on price competition. The other CEE economies fare a little better in this respect, nevertheless their performance still lags much behind the one in advanced economies.

3. Conclusions

From the foregoing, it emerges that despite advanced economics, CEE similarity in terms of structural upgrading – with Hungary being the best performer in this respect – the upgrading of CEE countries labour input, in contrast to advanced economies' experience, has not been in line with this development. Hungarian performance was the worst in the CEE countries in this respect.

While technical change in advanced economies was skill-biased in the surveyed period, and demand for highly-skilled workforce increased considerably, in the surveyed CEE countries (and especially in Hungary) demand for the relatively skilled labour declined, and the skill structure of persons engaged deteriorated.⁷ Transfer-driven technical change in CEE manufacturing industries has thus been complementary to raw, low-skilled labour and the thesis of capital/skill complementarity did not apply for several reasons.

First, the newly installed high-technology production equipment simplified processing tasks. The new, modern machines required routine skills that could be assimilated and mastered within two or three weeks of shopfloor learning-by-doing. Secondly, the deterioration of the skill structure can also be explained with the fact that similarly to the accumulated physical capital stock, part of the human capital stock also became suddenly obsolete following the political transition. Furthermore, as it

⁷ This development is in puzzling contrast with the substantial upsurge in the skill premium that can be observed in CEE countries as well. Note, that the quantity and quality of skills in each of the skill categories has undergone sizeable changes in this period.

was already mentioned, FDI-driven structural change and modernization had a negative side effect: production-related human-capital-intensive activities, especially R&D, were abandoned in the privatized entities.

Nevertheless, interindustry disparities in the quality upgrading of labour input calls for caution concerning the working hypothesis of this paper. I assumed that changes in the output mix are strongly correlated with changes in the structure of inputs. When, for example, a shift towards technology-intensive industries becomes manifest in the composition of output, the quality structure of labour input will improve as well, at least in advanced economies. However, data suggest remarkably large input-quality changes in low-technology industries, which question the hidden assumption of our hypothesis that the larger a shift towards higher-tech industries, the more improvement in the structure of labour input can be expected. We may conclude that the correlation of changes in input and output structures is more complex than it was originally assumed.

A model that describes this correlation would contain variables quantifying the extent of structural change as well as the extent of the shift towards high-tech industries. These variables ought to be weighed with the given countries' potential to attract outsourced processing activities (OPA potential). OPA potential is a narrower category than the well-known FDI-attraction potential, quantified in the annual UNCTAD World Investment Reports (www.unctad.org/wir).

OPA potential focuses on manufacturing activities, at a time when the services sector is characterised by sizeable and increasing FDI-attraction potential.⁸ OPA potential excludes FDI transactions with the purpose of technology acquisition as well as other M&A (materials and applications) deals with the purpose of market extension; product or service extension; various defensive purposes, etc. The gap between FDI-attraction potential and OPA potential that can be explained with this latter reason is significant only in advanced economies: in catching-up countries the annual flows of manufacturing FDI can more or less allow for estimating the given country's OPA potential.

Using OPA potential as a weight to correct for distortions caused by large shifts towards high-technology industries is necessary because in countries with a large OPA potential, the correlation between changes in input and output structures is weaker than the one in countries with insignificant OPA potential.

The other variables of the model quantify the extent of changes in the quality and quantity of labour input. However, similarly to measurement problems related to intangible capital, measuring the quality of labour presents non-negligible difficulties. Recall *Corrado–Hulten–Sichel* [2006] estimates of the scope of intangible investment in the United States. According to the cited authors, intangible business in-

⁸ According to *UNCTAD World Investment Report* ([2004] p. 97), world FDI stock in the services sector has quadrupled between 1990 and 2002.

vestment in the U.S. amounted to about USD 1000 billion in 1999. Nevertheless, only 15 percent of this amount was included in the national accounts with the capitalization of investment into software. Capital intensity of production quickly increased as a result of this reform. Since software investment is only a fragment of total intangible investment the authors conclude that the capital intensity of value-added creation is higher than calculated.

Nevertheless, measurement problems related to the other source of growth should not be neglected either. Capital/labour ratios are hard to estimate, not only as a reason of unmeasured intangible investment but also because of unmeasured human capital. Calculating the exact extent and the value of human capital is even more difficult than that of intangible capital, so the real labour intensity of value-added creation may also be higher than its officially calculated value.⁹

An indicator that indirectly refers to increasing labour input in manufacturing is the increase both in the volume of intermediate-service inputs and their share within total intermediate inputs.¹⁰ Of course, capital/labour ratios calculate only direct labour input, but in contrast to the past when dominant part of purchased intermediate inputs consisted of raw materials, parts and components (the labour input of which is accounted for in other manufacturing industries), at present an increasing volume of labour input in manufacturing, i.e. the one related to purchased services, is accounted for in the services sector not in manufacturing. The human-capital intensity of purchased services is difficult to estimate, since a part of purchased services consists of low-skilled outsourced services. However the share of high-skilled business services is also rapidly increasing (*Alajääskö* [2007]).

It also can be seen that the elaboration of a complex model that describes the relation between changes in input and output structures, driven by technological change, as well as the realistic assessment of individual industries' capital/labour ratios and of factors that influence these ratios requires substantial further research.

References

ALAJÄÄSKÖ, P. [2007]: *EU 27 Business services: Thriving in the wake of outsourcing and liberalisation*. Eurostat Statistics in Focus, Industry, Trade and Services, No. 76. http://epp.eurostat.ec.europa.eu/portal/page?_pageid=0,1136118&_dad=portal&_schema=PORTAL

⁹ Although substantial efforts have been made to improve the measurement of human capital (*Fitzenz* [2000]), it remains much to be done.

¹⁰ We provide some data to illustrate this statement. The volume of purchased intermediate services in German manufacturing increased by 44 percent between 1995 and 2004 accounting for altogether 24.8 percent of total intermediate inputs at the end of the surveyed period. Respective data for the U.S. were 20 percent growth and a share of 27.6 percent; for Hungary 107 percent growth and a share of 16.7 percent. (Source: EU KLEMS Database. www.euklems.net)

- AMIL, D. – GIANOPLIDIS, A. – LIPP–LINGUA, C. [2007]: *Evolution of high-technology manufacturing and knowledge-intensive services*. Eurostat, Statistics in Focus, Industry, Trade and Services. No. 68. http://epp.eurostat.ec.europa.eu/portal/page?_pageid=0,1136118&_dad=portal&_schema=PORTAL
- BERMAN, E. – BOUND, J. – GRILICHES, Z. [1994]: Changes in the demand for skilled labour within U.S. manufacturing: Evidence from the annual survey of manufactures. *Quarterly Journal of Economics*, Vol. 109. No. 2.
- CORRADO, C. A. – HULTEN, C. R. – SICHEL, D. E. [2006]: *Intangible capital and economic growth*. NBER Working Papers, No. 11948. National Bureau for Economic Research Cambridge, MA.
- CRINÓ, R. [2005]: Wages, skills and integration in Poland, Hungary and the Czech Republic: An industry-level analysis. *Transition Studies Review*. Vol. 12. No. 3.
- DULLECK, U. ET AL. [2005]: Dimensions of quality upgrading. Evidence from CEECs. *Economics of Transition*. Vol. 13. No. 1.
- FESER, E. J. [2003]: What regions do rather than make: A proposed set of knowledge-based occupation clusters. *Urban Studies*. Vol. 40. No. 10.
- FITZ-ENZ, J. [2000]: *The role of human capital: Measuring the economic value of employee performance*. AMACOM. New York..
- GOLDIN, C. – KATZ, L. F. [1998]: The origins of technology-skill complementarity. *Quarterly Journal of Economics*. Vol. 113. No. 3.
- GRILICHES, Z. [1969]: Capital-skill complementarity. *Review of Economics and Statistics*. Vol. 51. No. 4.
- LANDESMANN, M. A. – STEHRER, R. [2002]: Evolving competitiveness of CEECs in an enlarged Europe. *Rivista di Politica Economica*. Vol. 92. No. 1.
- LÁZÁR, K. [2003]: A bér munkavégzés hatása a magyar kötőipar fejlődésére. *Magyar Textiltechnika*. Vol. 56. No. 1.
- LIM, Y. [1999]: *Technology and productivity: the Korean way of learning and catching up*. MIT Press. Cambridge.
- MITTAG, H. J. [2006]: *Earnings disparities across European countries and regions*. Eurostat Statistics in Focus, Population and Social Conditions. No. 7. http://epp.eurostat.ec.europa.eu/portal/page?_pageid=0,1136118&_dad=portal&_schema=PORTAL
- NUNNENKAMP, P. [2005]: *The German automobile industry and Central Europe's integration into the international division of labour: Foreign production, intra-industry trade and labour market repercussions*. www.euroframe.org/fileadmin/user_upload/euroframe/docs/2005/session4/eurof05_nunnenkamp.pdf
- OECD [1998]: *Human capital investment*. Paris.
- OECD [2005]: *National accounts of OECD countries*. Vol. II 1992–2003 Detailed tables. Paris.
- PILAT, D. – WÖLFL, A. [2005]: *Measuring the interaction between manufacturing and services*. OECD STI Working Paper. No. 5. OECD. Paris.
- ROMALIS, J. [2004]: Factor proportions and the structure of commodity trade. *American Economic Review*. Vol. 94. No. 1.
- SOÓS, K. A. [2000]: Strukturális fejlődés a feldolgozóiparban a piacgazdasági átmenet idején. *Kül-gazdaság*. Vol. 46. No. 7–8.

SZALAVETZ, A. [2007]: Structural transformation of the capital stock and capital-saving technical change. *Acta Oeconomica*, Vol. 57. No. 3.

TÖRÖK, Á. – BORSI, B. – TELCS, A. [2005]: *Competitiveness in research and development. Comparisons and Performance*. Cheltenham: Edward Elgar Publishing Ltd. London.

TÖRÖK, Á. – PETZ, R. [1999]: Kísérlet a K+F-intenzitás és az exportszerkezet közötti összefüggések vizsgálatára a magyar gazdaságban. *Közgazdasági Szemle*. Vol. 46. No. 3.

WILÉN, H. [2007]: R&D in enterprises. *Eurostat Statistics in Focus, Science and Technology*. No. 39. http://epp.eurostat.ec.europa.eu/portal/page?_pageid=0,1136118&_dad=portal&_schema=PORTAL

UNCTAD [2004]: *World Investment Report*. UNCTAD. New York.

Trends in external trade of the new member countries after three years of membership with special reference to their intra-trade

András Inotai

DSc., Director of the Institute for World Economics of the Hungarian Academy of Sciences

E-mail: ainotai@vki.hu

The first three years of membership in the EU have had substantial impact on the trade of the new member countries (NMS) in general, and on that of Hungary, in particular. Trade creation, an obvious tendency from the early 1990s on, has stopped in NMS exports to the EU 15. Even more, EU 15 share started to diminish substantially, between 2.2 and over 20 percentage points. In turn, EU 15 share in total imports reveals a more controversial picture of trade creation and trade-diversion effects. By far the biggest change is represented by the dramatic increase of intra-NMS trade. Its volume more than doubled from less than EUR50 billion in 2003 to almost EUR 100 billion in 2006. Thus, intra-NMS trade flows did not only become the most dynamic factor of EU 25 trade but they played a fundamental role in replacing previous commodity flows to, and partly from, the EU 15. Hungary's exports and imports from the EU 25 grew slower than those of other NMS but much quicker than the EU 25 average. Two important new trends have to be highlighted. First, Hungary's intra-NMS-trade has been characterised by a strong increase of the share of NMS in total exports (from 7.5 to 13 percent in a four-year period). Second, and not less importantly, Hungary's traditional trade deficit with the NMS turned into a remarkable and sustainable surplus and contributed by EUR 1.7 billion to the improvement of the country's overall trade balance. This figure points to sustained competitiveness. It is the task of forthcoming studies to shed light on the main factors that had been driving exports and fostered competitiveness in intra-NMS-trade.

KEYWORDS: Service and trade statistics. International analyses, comparisons.

For external-economy-dependent countries, foreign trade is one of the most evident macro-economic indicators of successful or failed adjustment, growing or decreasing competitiveness. In this context, all new member states (NMS) that joined the European Union in May 2004, belong to this category. Thus, their foreign trade performance in the EU 25 may provide important guidance in assessing their adjustment process in the last three years of membership.

Moreover, such a survey offers several challenging issues related to traditional theoretical hypotheses and approaches. First, establishment of or accession to a regional integration is expected to produce trade-creation and trade-diversion effects, particularly if the given integration is not only a free-trade area but a customs union as well. Second, what is the impact of accession on intra-NMS trade, particularly if it became fully liberalized just at the moment of accession to the EU? Third, free trade between differently developed countries used to produce high trade surplus for more developed and high trade deficit for less developed member countries of the given integration. Fourth, and in continuation of the previous line of thinking, the commodity pattern of trade relations between more and less developed member countries of the same integration is expected to represent bilateral commodity flows of high value-added and high technology-content of exports from more to less developed countries and, at the same time, low value added and low(er) technology-content exports from the less to the more developed member states.

To what extent, if at any, can the given – still deeply-rooted – theoretical assumptions (or, even more, stereotypes) be verified or refuted in the special context of “Eastern” enlargement characterised by

- rapidly expanding globalization,
- foreign trade and investment flows predominantly driven by global activities of transnational companies (with differently strong positions in the NMS),
- free trade in all industrial and most agricultural products several years before membership (in contrast to previous enlargements by less developed new members),
- a new pattern of strategic decision-making on the level of transnational companies from the traditional vertical towards a future-oriented horizontal structure of organization and international division of labour.

Based on this theoretical background and considering the changing framework conditions, the statistical analysis offered in this paper sheds light on some important

trends that can be observed as a result of a three-year membership in the EU.¹ The basic fields covered by statistical figures and own calculations include:

- the evidence of trade creation and trade diversion,
- the impact of membership on intra-NMS trade (as a priority area of this paper),
- development of competitiveness of the NMS mainly based on growing or declining shares on different markets,
- bilateral trade balances and finally,
- the commodity pattern of NMS exports.

The period covered by the survey includes the years from 2003 to 2006. The initial date represent the last year of pre-accession, while 2006 offers the most recent annual figures. For unbiased comparison, all statistical data are taken from different publications of Eurostat (“External and intra-European trade”), on which own calculations are also based. The analysis incorporates respective trade figures of all NMS that joined in 2004, excepting, for their negligible impact both on total and intra-NMS trade, Cyprus and Malta.²

The analysis of the growth of exports and imports, trade balance, individual country shares, as well as commodity pattern focuses not only on overall figures but tries to distinguish between intra- and extra-EU trade, with particular reference to intra-NMS trends of trade flows. As a last remark, the basic approach is focused on the performance of the NMS 8 group, however, in most cases, with special attention to Hungary, both as compared to overall EU trade developments and to the basic trends that could be identified in other NMS countries, as – at least – short-term competitors of Hungary.

The paper is divided into four major parts. First, overall trends of the NMS trade within the EU 25 will be elaborated on. Second, special attention will be paid to some characteristic features of intra-NMS trade between 2003 and 2006. Third, some basic elements of the commodity pattern of trade, with special emphasis on the structure of exports, will be highlighted. Finally, as a concluding section, important and at least partly surprising changes in the geographic distribution of NMS trade will be illustrated.

¹ Due to the obvious limitations of the paper, several background statistical tables and own calculations based on Eurostat figures could not be included into the printed form, even if reference has been made on selected relevant developments verified by statistics. The complete statistical material can be consulted on the internet Supplement of this article. Reference to each additional table can be found in the appropriate section of the paper.

² Therefore, a category of NMS 8 was created (Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovakia, Slovenia). Bulgaria and Romania, although partly included in EU trade statistics retrospectively (EU 27), have not been considered, since in the period of the survey they had not yet been members of the EU.

1. The new member countries in the EU 25 trade developments

Following the full-fledged membership, trade of the NMS 8 kept on developing dynamically. Between 2003 and 2006, total exports grew from EUR 172 billion to EUR 298 billion, while imports increased from EUR 199 billion to EUR 325 billion. Both intra-EU and extra-EU trade experienced high growth rates. However, calculations based on Table 1 reveal some remarkable features that need further explanation.

Table 1

Development of NMS 8 trade
(EUR billion)

Year	Total exports	Intra-EU 25 exports	Extra-EU ex-ports	Total imports	Intra-EU 25 imports	Extra-EU im-ports
NMS 8						
2003	171.97	139.57	32.40	199.39	136.83	62.56
2004	211.12	169.59	41.53	237.59	177.34	60.25
2005	246.29	193.43	52.86	269.18	200.99	68.19
2006	297.96	231.33	66.63	325.32	237.76	87.56
EU 25						
2003	2.761	1.878	883	2.729	1.788	941
2004	2.997	2.028	969	2.983	1.951	1.032
2005	3.236	2.164	1.072	3.276	2.092	1.184
2006	3.608	2.428	1.180	3.698	2.346	1.352

Note. For individual country data see Tables S1, S2, and S3.

Source: Eurostat. *External and intra-European Union trade*. Monthly Statistics, various issues.

1. Total exports and imports of the NMS 8 group indicate much stronger growth than the EU 25 average (of which, of course, this group is also part of). The difference in cumulative growth rates is particularly evident in exports that grew more than twice as quicker than the overall export growth of the EU 25 (73.3 vs. 30.7 percent).

2. Exports to extra-EU countries experienced a much higher growth than to the EU 25, which is an indicator of trade diversion instead of trade creation following accession. In turn, trade creation did take place to some extent in imports, where intra-EU imports grew much quicker than extra-EU imports.

3. The EU 25 indicated a cautious (much less dynamic) shift to external geographic orientation. This was much less accentuated in exports than in imports (4.3

percentage point difference between the growth rate of intra-EU and extra-EU exports, and 12.2 percentage point difference in the respective imports).

How can the discussed and partly surprising trends be explained? Evidently, one reasonable explication is that the NMS 8 group had implemented free trade covering almost 100 percent of the total exports several years before membership (in fact, as of 2001). Consequently, most trade-creation impacts had been working prior to membership, practically over a period of more than one decade (from the entering in force of the trade section of the association agreement between 1992 and the mid-1990s). Another argument can be linked to the low growth rate of the traditional EU markets as compared to other markets. This development may have been strengthened by the impact of globalization that opened up new market opportunities in rapidly growing non-EU countries, particularly in Asia but also in Eastern and South Eastern Europe. Moreover, to some extent EU support can also be taken into account, particularly in the context of agricultural exports, since the new member countries started to enjoy the export-subsidy mechanism of the EU. This may have had a positive impact on agricultural exports to neighbouring countries, particularly Russia (it is not by chance that Poland could accumulate the highest agricultural-export surplus among the NMS 8 in the last years). Nevertheless, the most plausible explanation seems to be that transnational companies rooted in the NMS (although with rather different macroeconomic weights and role in total exports) several years before institutional membership, started to make full use of the enlargement by having the legal, institutional and also political support derived automatically from the fact of accession.

In turn, statistical figures confirm trade creation in NMS 8 imports. This has been happening in contrast to EU 25 developments that indicate a higher dynamism of extra-EU imports than intra-EU imports. The latter can relatively easily be explained both by growing competition from China and other emerging economies as well as by higher energy prices. However, the particular case of the NMS 8, again, requires some elaboration. First, as already mentioned, the trade-related impacts of free trade had been working not only in exports but also in imports well before membership. In addition, the immediate harmonisation of national import duties to the level of the EU customs union could have resulted in higher extra-EU imports, since national customs duties used to be higher than the customs level of the Union. Moreover, the first years of membership were accompanied by rapidly increasing fuel prices. Since most NMS (excepting Slovenia) are heavily dependent on Russian deliveries, extra-EU imports should have experienced an increasing share in total imports, just because of the price factor. Lacking fundamental analysis, some speculations only can be made in order to explain trade creation in imports of the NMS 8. On the one hand, institutional membership seems to have created a qualitatively new status for the new members. Thus, legal certainty, EU-level transparency and institutional adequacy

may have fostered not only exports to the NMS 8 by large Western European transnational companies but, increasingly, by small- and medium-sized firms, too. On the other hand, rapid and sustained economic growth (three to five times higher than the average growth rate in the EU 15) may have created additional demand for intra-EU exports. Finally, also rapidly growing intra-NMS trade has to be reckoned with (although, as it will be shown, this effect can be clearly identified in export developments as well). Detailed figures, including the performance of the individual new members have been summarized in Table 2.

Table 2

Dynamics of NMS 8 trade, 2003–2006
(Index: 2003 = 100.0)

Country	Total exports	Total imports	Intra-EU 25 exports	Intra-EU 25 imports	Extra-EU 25 exports	Extra-EU 25 imports
Czech Republic	175.9	162.3	171.2	182.9	205.9	111.9
Estonia	188.0	178.7	149.8	201.9	367.1	136.1
Latvia	189.8	195.0	172.4	196.6	256.6	190.4
Lithuania	182.5	180.3	184.4	201.7	179.2	153.3
Hungary	155.7	145.0	142.0	153.5	214.9	130.6
Poland	184.2	164.8	176.1	171.1	218.4	150.6
Slovenia	164.2	156.9	163.7	159.0	165.1	150.3
Slovakia	172.2	183.3	173.0	185.8	167.6	176.1
NMS 8	173.3	163.2	165.7	173.8	205.6	140.0
EU 25 total	130.7	135.5	129.3	131.2	133.6	143.4

Source: Here and in Tables 3-6 the author's own calculations based on *Eurostat: External and intra-European Union trade*. Monthly Statistics, various issues.

A cross-country survey reveals that with a few and remarkable exceptions, all NMS 8 countries produced much higher growth rates in their total, intra- and extra-EU trade, respectively than overall EU 25 figures. The only exception is represented by three countries in extra-EU imports that are responsible for the lower NMS 8 average than the EU 25 total (Estonia, Hungary and, particularly, the Czech Republic). However, the trend of intra-EU import creation was a strong and common feature for all new members. (Differences in growth rates between intra-EU and extra-EU imports were particularly high in the Czech Republic, Estonia, Lithuania, Hungary and Poland). At the same time, cross-country comparison indicates a differentiated picture of the dynamics of intra- and extra-EU exports. In general terms, as already stated, the latter registered a much higher dynamism (trade diversion, or extra-EU

trade creation), however, it did not characterise all countries of the group. This outward tendency was very strong for the Czech Republic, Estonia, Latvia, Hungary and Poland, while intra- and extra-EU export dynamism was similar in the case of Slovenia. In contrast, Lithuania and Slovakia became more EU-oriented (here, the trade-creation effect worked).

It is interesting to analyse the differences between export and import growth rates. In total, the NMS 8 group achieved higher total export than total import growth, which can be considered not only a positive impact on trade balance (see later), but also as an indicator of growing competitiveness. However, the overall figure is the result of two contrasting developments. On the one hand, extra-EU exports grew much more dynamically than imports, while in the intra-EU framework, import growth proved to be higher than export growth. Still, country-specific figures largely differ. Higher growth of total exports vs. imports can be attributed to Poland (with a growth rate difference of 20 percent), the Czech Republic (13.6%), Hungary (10.7%), Estonia (9.3%), Slovenia (7.3%) and Lithuania (2.3%). In turn, total imports grew more dynamically than total exports for Slovakia (11.1%) and Latvia (5.2%). Concerning intra-EU trade, excepting Poland and Slovenia, all new member states experienced higher import than export growth. Finally, as far as extra-EU trade is considered, all new members show a much higher export than import growth, with the only exception of Slovakia.

Looking at the difference in dynamism of exports and imports of the individual countries, Hungary reveals the relatively lowest level of growth (although still clearly higher than the average of the EU 25). While total Hungarian exports grew by 56 percent in a four-year period, the main competitors of the region increased their exports by 72 (Slovakia), 76 (Czech Republic) and 84 percent (Poland). Even Slovenia could expand exports by 64 percent, let alone the Baltic states with almost doubling their certainly modest exports between 2003 and 2006. The basic picture is similar in imports; however, here the differences are not as much stressed. Due to the dominant share of the EU in total trade, the pattern holds for intra-EU trade as well, being Hungary the least dynamic new member country again (but still more dynamic than total EU 25 trade figures). This picture is substantially modified if we look at the extra-EU indicators. Extra-EU exports grew most dynamically for Hungary (excepting two small Baltic states), while imports revealed a relatively sluggish growth (but still higher than the Czech Republic and similar to Estonia).

These developments already predict changes in the share of the NMS 8 and of the individual countries in total, intra- and extra-EU trade of the EU 25. Three main trends have to be underlined.

1. Although from a low level, however, in all comparisons, the share of NMS 8 kept on further growing after accession. In total EU 25 exports the share increased

from 6.23 (2003) to 8.26 (2006) percent, or a more than 2 percentage points “market gain” in four years. In total imports, the 7.31 percent share experienced an increase to 8.80 percent.

2. The share of NMS 8 in intra-EU trade was substantially higher than in extra-EU trade. As a consequence of continuous dynamic increase, the share of the NMS 8 in intra-EU exports grew from 7.43 to 9.53 percent, while in imports it reached the 10 percent level (from 7.65 to 10.13 percent in a four-year period). In contrast, the NMS 8 is still underrepresented in extra-EU trade, even if shares were rapidly increasing in exports (from 3.67 to 5.65 percent), but not in imports (slight decline from 6.65 to 6.48 percent). In other words, and as a first and maybe superficial approach, the new countries have a relatively higher intra-EU orientation and seem to be less prepared to global competition. (For shares of individual countries see Tables S4., S5. and S6.)

3. Despite higher growth rates of exports than imports, NMS 8 participation in exports resulted still lower than in imports. However, the original (2003) “gap” could be substantially narrowed in total trade (from 1.08 percentage points to 0.54), and in extra-EU trade (from almost 3 percentage points to 0.87). In contrast, and due to the already mentioned “trade creation in intra-EU imports”; the share of the NMS 8 group in intra-EU exports grew slower than in imports (2.10 percentage points vs. 2.43 percentage points).

Turning attention to the individual countries, all of them participated in the higher export and import shares. Of course, there were some differences in dynamism, since the 2.03 percentage point share increase was mainly generated by Poland (0.71) and the Czech Republic (0.54). Hungary’s contribution was 0.26 percentage points, similar to half-sized Slovakia (0.22). Similar trends can be observed in total imports, with the difference that Slovakia’s share was more quickly increasing than that of Hungary.

A not less interesting approach compares export and import shares of the individual countries. In this context, the NMS 8 group shows rather diverging features. The Czech Republic is the only country that in 2006 showed a higher share in total EU exports than imports. The second group consists of the “balanced” countries, including Hungary, Slovenia and partly Slovakia. All others reveal a much higher share in imports than in exports, anticipating substantial trade deficits. In intra-EU trade Hungary joins the Czech Republic in having higher share in exports than in imports. All others (excepting “balanced” Slovakia) register higher import than export shares. In turn, extra-EU trade is characterised by much higher import than export shares (with the clear exception of Slovenia having its ex-Yugoslav “hinterland” and, to a much smaller extent, Estonia).

Detailed statistics on the share of the individual NMS in total, intra- and extra-EU trade have also been prepared. (See Tables S7, S8 and S9.) Some remarks only on Hungary should be made here. First, over the four-year period, Hungary has been the third largest trading country (following Poland and the Czech Republic). Second, its share has been constantly decreasing in total exports and imports of the NMS 8 (over a four-year period from 22.2 to 19.9 percent in exports and from 21.2 to 18.8 percent in imports). The relative position of the Czech Republic, with some annual fluctuations, remained constant, while Poland could increase its share (to about 30 percent of the group). Third, in contrast to the previously mentioned general trends, Hungary was the second largest country in extra-EU trade (after Poland but clearly ahead of the Czech Republic). More importantly, its relative share could be increased in exports (from 22.1 to 23.1 percent). In turn, its share in imports registered a decrease (similarly to the Czech Republic and in contrast with all other NMS).

Table 3

Trade balance of the NMS with the world

Country	2003	2004	2005	2006	Cumulative 2003–2006	Coverage export/import 2006	Coverage export/import 2003–2006
	in EUR billion						
Czech Republic	-2.67	-1.02	+1.28	+1.54	-0.87	102.1	99.6
Estonia	-1.75	-1.90	-2.03	-2.76	-8.44	73.1	72.7
Latvia	-2.07	-2.49	-2.85	-4.17	-11.58	53.8	56.1
Lithuania	-2.37	-2.48	-3.01	-4.14	-12.00	73.1	74.1
Hungary	-4.16	-3.99	-2.90	-1.98	-13.03	96.8	93.7
Poland	-12.83	-11.78	-9.81	-11.91	-46.33	88.0	85.2
Slovenia	-0.96	-1.12	-0.87	-0.68	-3.63	96.5	94.2
Slovakia	-0.61	-1.69	-2.70	-3.26	-8.26	91.1	92.4
NMS 8	-27.42	-26.47	-22.89	-27.36	-104.14	91.6	89.9

Concerning competitiveness, an important indicator is the total, intra- and extra-EU-based trade balance as well as the export/import coverage ratio of the group, in general, and of the individual members, in particular. Tables 3, 4 and 5 contain annual and cumulative figures of the trade balance. Taking the four-year period, the NMS 8 has accumulated a trade deficit of more than EUR 100 billion, as a result of transformation costs, modernization efforts and higher energy prices (or deterioration of terms-of-trade). Almost half of it concentrates on Poland, while Hungary's cumulative deficit is similar to that of Latvia or Lithuania (much smaller economies but with a much larger imbalance between export performance and import needs). The

best performer is the Czech Republic that registered not only negligible cumulative deficit but resulted the only new member country that could change its trade balance from negative to positive in the first years of EU membership. Another encouraging development took place in Hungary, a country that could substantially reduce its original trade deficit year by year. Poland's deficit, on a very high level, remained constant, while that of the Baltic countries and especially that of Slovakia were rapidly growing. As far as trade balance can be considered a factor of competitiveness of the given economy, the Czech Republic, Hungary and Slovenia provide the best results. Similar conclusions can be drawn from the coverage ratios. On a four-year basis (2003 to 2006) the Czech Republic shows a practically balanced pattern (imports have been covered by exports to 99.6 percent). The next and adequately performing group consists of Slovenia, Hungary and Slovakia (with coverage ratios of 92 to 94 percent). They are followed by Poland and the Baltic states, having the latter very low coverage ratios.³

Table 4

Trade balance of the NMSs with the EU 25

Country	2003	2004	2005	2006	Cumulative 2003–2006	Coverage export/import 2006	Coverage export/import 2003–2006
	in EUR billion						
Czech Republic	+4.68	+2.49	+2.99	+4.22	+14.38	107.1	107.7
Estonia	-0.43	-1.07	-1.45	-2.58	-5.53	65.6	75.3
Latvia	-1.46	-1.82	-2.09	-3.36	-8.73	51.0	56.2
Lithuania	-0.91	-1.30	-1.21	-2.50	-5.92	74.0	78.9
Hungary	+4.28	+2.89	+2.46	+3.01	+12.64	107.4	109.3
Poland	-3.32	-6.21	-5.60	-3.76	-18.89	94.7	91.7
Slovenia	-1.71	-2.92	-2.50	-2.36	-9.49	84.0	80.4
Slovakia	+1.61	+0.19	-0.19	+0.90	+2.51	103.3	103.1
NMS 8	+2.74	-7.75	-7.59	-6.43	-19.03	97.3	97.5

An analysis of the trade balance with the EU can be particularly interesting, since it reflects the result of free trade between differently developed countries. At least for some countries, both cumulative and annual figures contradict traditional theories. Namely, three countries: the Czech Republic, Hungary and Slovakia register surplus in their intra-EU trade over the whole period (excepting Slovakia in 2005). Moreover,

³ Naturally, high trade deficits can be financed by the exports of services or other incomes, including foreign capital, international loans, private remittances, etc. Still, the balance of trade in commodities used to be seen as a major indicator of international competitiveness of the given country.

Hungary reveals the highest (positive) coverage ratio, followed by the Czech Republic and Slovakia. At the other end of the scale, Latvia, a country with China-like growth rate, can cover a bit more than half of its imports by exports. Intra-EU trade balance and coverage ratios positively correlate with different levels of involvement in global trade and investment flows. Also, it supports the view that, in the era of globalization, different development levels do not automatically play a decisive role in the evolution of bilateral trade balances. Overall competitiveness and geographic orientation of large transnational companies located in the given country affects trade performance and balance more essentially than traditional factors, including national business cycles.⁴ In turn, the Baltic countries and Slovenia seem to be much less involved in the international network of manufacturing, with obvious impacts on their trade balance and global competitiveness (at least in the tradeable sector).

Table 5

Trade balance of NMSs with the extra-EU 25 region

Country	2003	2004	2005	2006	Cumulative 2003–2006	Coverage export/import 2006	Coverage export/import 2003–2006
	in EUR billion						
Czech Republic	-7.35	-3.51	-1.71	-2.68	-15.25	81.9	70.1
Estonia	-1.32	-0.83	-0.58	-0.18	-2.91	93.5	65.7
Latvia	-0.61	-0.67	-0.76	-0.81	-2.85	62.7	55.8
Lithuania	-1.46	-1.18	-1.80	-1.64	-6.08	71.6	66.8
Hungary	-8.44	-6.88	-5.36	-4.99	-25.67	75.5	63.0
Poland	-9.51	-5.57	-4.21	-8.15	-27.44	70.9	67.9
Slovenia	+0.75	+1.80	+1.63	+1.68	+5.86	137.5	142.8
Slovakia	-2.22	-1.88	-2.54	-4.16	-10.80	54.4	58.1
NMS – 8	-30.16	-18.72	-15.33	-20.93	-85.14	76.1	69.4

Finally, in extra-EU trade all countries, with the evident exception of Slovenia, indicate huge imbalances and low level of coverage ratios (even if the latter was slightly improving during the observed period). High deficit in extra-EU trade can be the result of three – partly interconnected – developments. First, all countries are

⁴ For instance, Hungary's key trading partner is Germany. A decade ago, upswing or recession in the German economy was considered to be a key external factor of the growth rate of the Hungarian economy. Certainly, this correlation did not ceased to exist, however, it is much weaker than before. As a large part of Hungary's exports to Germany does not have its final destination on the German market, but represents a growing input into German production for exports, the most important external driving force is shifting from the growth of the respective national economy to the global competitiveness of (German or in Germany located international) companies.

substantial energy importers, and most of the imports come from extra-EU sources (predominantly from Russia). Second, increasing openness, as a consequence of implementing the customs union, may enhance global competition to which domestic economic actors are not prepared. Third, and in a more positive approach, high imports can also be the consequence of a qualitatively different level of becoming involved in the global network of transnational companies. While the first factor affects all NMS (excepting Slovenia), the last one can only be clearly identified in Hungary and the Czech Republic (and most recently in Slovakia, too). As compared to the size of the economy and total trade, the growing deficit of the other countries (mainly the Baltic states) can be explained by missing or “deficient” industrial competitiveness.

Finally, the exceptional case of Slovenia needs some remarks. The surplus is due to two factors, namely the different geographic orientation of energy imports on the one hand, and, more importantly, to having maintained traditional trade contacts with ex-Yugoslav republics, on the other. In the short and, perhaps, medium term this can be considered as an intelligent decision; its longer term impacts are much more ambiguous. In principle, there are two different extra-EU orientations in the exports of the NMS 8. One is based on global competitiveness, partly reinforced by successful market access to the huge internal market (in most cases in the framework of the exports of transnational companies located in several NMS). The other can be considered as exports to a “captive” market that, although it offers traditional opportunities and keeps production and allocation networks, is unable to create a competitive environment. In fact, most Western Balkan countries possess a large number of protectionist measures, inherited from the former Yugoslav Federation. It is not yet clear to what extent the Slovenian orientation to the ex-Yugoslav markets will be able to keep or (re)generate the international competitiveness of Slovenian firms heavily engaged in this area. Already anticipating the next part of the study, it has to be stressed that growing regional orientation of the new member countries is embedded into a different environment, since most countries in question have open markets and free trade with the EU. Thus, they have to conquer new markets in keen and healthy European (and increasingly global) competition.

2. The impact of membership on intra-NMS trade

One of the most predictable and positive consequences of the accession of the new member countries was the dramatic increase of intra-NMS trade. It was not difficult to anticipate this trend due to

- the high level of protectionism practiced by all acceding countries over several years, despite the existence of CEFTA,⁵
- the sustainable and rapid growth in the NMS 8 group,
- regional strategies of transnational companies, and
- a different quality of confidence-building towards new and more cautious market players (small- and medium-sized enterprises, non-European investors) as a result of accession.

Not less importantly, it was expected that the liberalisation of trade among the NMS 8 countries would create a high level of transparency concerning the regional (and partly European and global) competitiveness of the respective economies. Despite the generally justified expectations, some developments may have caused surprise (and mainly positive shocks).

1. Intra-NMS trade turnover more than doubled in four years (from EUR 45.5 billion to EUR 97.9 billion, or by 115 percent, see Table S10, as well as corresponding figures for overall intra-exports and intra-imports of individual countries for Table S11).⁶ Thus, it became by far the most dynamic factor not only of the trade development of the NMS, but also that of the EU 25. Although there is no quantitative assessment as of today, this development has definitely contributed to the strengthening of EU 25 competitiveness (accompanied by corresponding capital flows).

2. New member countries could make use of the opening-up of regional opportunities at various degrees. Above-average export growth was reported in all Baltic countries and in Hungary. The latter could increase its NMS-exports by 168 percent, the second largest increase after the small Latvia (231 per cent). In turn, other NMS countries registered lower than average, although higher than global and EU 25 growth rates. (See Table 6.)

3. A completely different picture developed in intra-NMS imports. The most dynamic increases happened in the Baltic countries and in Slovenia, while the Czech data remained about the average. In turn, Slovenian, Polish and Hungarian imports registered lower-than-average growth rates.

4. As a continuation of the previous paragraphs, the liberalisation of regional trade upon accession was used differently from country to country. Some of them could achieve much higher export than import growth rates (mainly Hungary and Latvia, but also Slovenia and Poland), while others reported higher import than ex-

⁵ In its name, CEFTA was a free-trade area among more or less similarly developed (or underdeveloped, in some cases more mis-developed) countries. In ideas, it looked much better than in practice. Bilateral trade barriers to a large number of commodities could never have been abolished. However, joining the EU on May 1, 2004, all obstacles were immediately lifted and the way for unrestricted free trade was cleared.

⁶ Bilateral (cross-country) export and import data are provided in Tables S12. and S13.

port growth (mainly Lithuania, but also Estonia, Slovakia and to a lesser extent also the Czech Republic). However, contrary to some other regional integrations (e.g. Mercosur – South American Common Market or ASEAN – Association of Southeast Asian Nations), different export and import growth rates do not necessarily lead to a classification of the NMS 8 into primarily exporters (“unilateral beneficiaries” of EU membership) and importers (“unilateral losers” of membership).

5. “Intra-NMS trade propensity” differs from country to country. This is due both to historical links, as represented by the surviving strong economic linkages between the Czech Republic and Slovakia, and to geographic proximity (Baltic countries⁷). Therefore, it is not surprising that the highest share of intra-NMS exports and imports (as measured in total trade) can be identified for Latvia, Lithuania and Slovakia, followed by a second group consisting of the Czech Republic and Estonia. In turn, the share of intra-NMS exports remains between 11 and 14 percent for Slovenia, Hungary and Poland. Similar pattern can be observed in imports.

6. The dynamics of intra-NMS trade does not necessarily correspond to the previous description. In fact, all NMS have increased the share of intra-NMS exports and imports in their total trade. In other words, within the enlarged EU, a definitive trade creation occurred among the NMS 8 group and, consequently, a trade diversion from other markets (whether EU 15 or extra-EU markets, see more details later in this section and Section 4.). The largest degree of orientation towards the NMS markets can be found in Latvia, a country that not only has the highest share of intra-NMS exports in total exports (above 30 percent), but increased the share of NMS-related exports from 17.3 to 30.2 percent in four years. In addition, high increase of NMS share in total exports characterises Lithuania, Hungary Estonia and Slovakia, while the Czech Republic, Poland and Slovenia reported lower, but still unanimous increase in the share of NMS in their respective total exports. In imports, by far the biggest increase was registered in Slovakia, most probably not independently of the (belated) high economic growth and foreign direct investments that are increasingly relying on inputs to be imported from the neighbouring EU countries.⁸

7. In a four-year period a clear export- and import-related pattern of intra-NMS trade had been evolving. The Czech Republic, Hungary, Poland and Slovenia first of all benefitted from intra-NMS trade on the export side, being the share of intra-NMS

⁷ Although the Baltic countries over almost half a century belonged to the ex-Soviet Union, central planning did not allow deeply-rooted regional (Baltic) cooperation, since each ex-Soviet republic was given a specialization pattern considering all-Soviet and not regional (Baltic) advantages and requirements.

⁸ In the last years, most politicians and economic-policy experts were focusing on how to acquire large-scale foreign direct investments. Much less attention was given to the foreign-trade-related consequences of such investments, particularly additional import requirements. It is an open question, whether it is better to attract a large-scale investment from abroad or to build a strategy on supplying this project with high-quality and high value-added inputs.

trade much higher in their exports than in their imports. On the other side, Slovakia registered a more import-related linkage to intra-trade (although also its export-related link was the second highest). Finally, the Baltic countries indicated a more balanced picture between intra-NMS export and import shares. (See Table 7.)

Table 6

Dynamics of intra-NMS 10 trade, 2003–2006
(Index: 2003 = 100.0)

Country	Exports	Imports
Czech Republic	196.4	212.9
Estonia	231.1	283.6
Latvia	331.1	252.0
Lithuania	236.3	320.2
Hungary	267.7	192.1
Poland	209.3	187.3
Slovenia	202.9	161.3
Slovakia	198.1	242.2
NMS 8 average	214.3	216.5

Table 7

*Intra-NMS 10 trade in total trade of the NMS 8 countries (including Malta and Cyprus)**
(percent)

Country	Exports				Imports			
	2003	2004	2005	2006	2003	2004	2005	2006
Czech Republic	16.5	17.3	18.0	18.4	12.1	13.2	14.5	15.9
Estonia	14.1	17.8	17.5	17.4	11.3	15.2	16.9	17.9
Latvia	17.3	21.9	29.1	30.2	24.4	27.9	31.5	31.5
Lithuania	19.4	21.4	22.9	25.2	11.6	18.3	18.2	20.5
Hungary	7.5	8.7	11.0	13.0	8.1	9.1	10.0	10.7
Poland	12.0	11.8	12.2	13.6	8.0	9.2	9.4	9.1
Slovenia	8.5	8.8	9.3	10.5	8.3	8.9	8.9	8.6
Slovakia	23.9	25.2	27.7	27.5	22.4	27.5	29.4	29.6

* Total exports and total imports, respectively, 100

Source: Own calculations based on Eurostat [2007]: *External and intra-European Union trade*. Monthly Statistics. No. 4.

Another calculation based on the share of intra-NMS trade within the increment of total trade in the period between 2003 and 2006 provides further interesting data. In total, new intra-NMS exports generated in the first years of membership approached EUR 27 billion, of which about half was accounted for by the Czech Republic and Poland (for more detailed data see Table S14.). Further important “contributors” were Hungary (18%) and Slovakia (17%), while the share of the Baltic countries (despite the dramatic increase of intra-NMS trade) and Slovenia remained rather modest.

Looking at the most important bilateral flows within the intra-NMS trade, traditional economic relations, geographic proximity and the size of the respective economies (both as an exporter and importer) proved to be decisive. (For detailed figures on the share of the individual NMS in total intra-NMS exports, imports and turnover see Table S15. Cross-country trade flows have been summarized in Table S16.) As another and qualitatively new factor, the development of cross-country clusters mainly generated by transnational companies can be added. However, robust statistical evidence is still missing, even if some investment and trade flows are likely to support this assumption. According to the 2006 figures, there have been altogether 14 bilateral trade flows, both in exports and in imports that exceeded the volume of EUR 1 billion. (See Table 8.)

Table 8

*Most important bilateral trade flows among the new member countries, 2006**

Exporting country	Importing country	Amount (million EUR)
Czech Republic	Slovakia	6.378
Poland	Czech Republic	4.759
Slovakia	Czech Republic	4.653
Czech Republic	Poland	4.310
Poland	Hungary	2.668
Hungary	Poland	2.366
Hungary	Slovakia	2.278
Czech Republic	Hungary	2.267
Slovakia	Poland	2.057
Hungary	Czech Republic	2.039
Slovakia	Hungary	1.913
Poland	Slovakia	1.812
Poland	Lithuania	1.292
Lithuania	Latvia	1.249

* Bilateral export/import items over EUR 1 billion.

Source: Eurostat [2007]: *External and intra-European Union trade*. Monthly Statistics. No. 4.

Excepting two channels (Poland–Lithuania and Lithuania–Latvia, and vice versa), all of them have been registered among the four Visegrád countries. In turn, Slovenia does not appear in any of these bilateral trade flows. Based on export and import figures, bilateral trade can be divided into four categories. The first is represented by close trade relations between the Czech Republic and Slovakia (with a turnover of EUR 11 billion). The second category is occupied by Czech–Polish trade relations (turnover above EUR 9 billion). All major bilateral trade relations of Hungary (as well as Polish–Slovak trade) belong to the third section with a turnover of EUR 4 to 5 billion with each of the Visegrád countries. Finally, the lowest category is represented by unilateral Polish exports to Lithuania and Lithuanian exports to Latvia (respective imports do not reach the limit of EUR 1 billion).

Generally, the most important bilateral relations indicate high growth rates between 2003 and 2006 as well. Thus, the initial position was in most cases further strengthened by EU membership. Still, some specific developments have to be highlighted. First, the four-year cumulative growth of bilateral trade between the Czech Republic and Slovakia (87%) lagged behind the overall growth rate of intra-NMS trade (115%). This can be explained by the initial high level of trade but also by the growing and successful competition by other NMS, mainly Poland and Hungary. This development is underlined by the fact that Hungarian exports to Slovakia more than trebled and also Polish exports to this country grew by 135 percent. Also, trade between the Czech Republic and Hungary has shown above-average growth rates both in exports and imports. Even more dynamic growth could be observed in Latvian exports both to Estonia and Lithuania, as well as Lithuanian exports to Poland. Interestingly, the growth rate of Slovenian trade remained relatively modest (it only exceeded the NMS average in exports to Hungary). (For details see Table S17.) Some bilateral relations, mainly characteristic of the smaller new member countries, remaining in the volume between EUR 500 million and EUR 1 billion have revealed partly even higher growth rates. (See Table S18.)

One of the most interesting trends of intra-NMS trade can be identified in the development of trade balance of the member countries. Although, by far, it does not cover the whole trade, trade surplus and deficit positions provide some indication concerning the structure of the given economy, and to a not lesser extent, its competitiveness. Since intra-NMS trade is an integral part of intra-EU trade, surplus and deficit positions in general, and relevant changes in these positions, in particular, can be considered as an indicator of changing competitiveness. Table 9 summarizes the most important figures.

Table 9

*Intra-NMS trade balance of NMS 8**
(EUR million)

Country	2003	2004	2005	2006	Change 2003–2006
Czech Republic	+1548	+2123	+2415	+2125	+577
Estonia	–84	–170	–284	–534	–450
Latvia	–686	–890	–994	–1378	–692
Lithuania	+211	–228	–93	–329	–540
Hungary	–537	–550	+190	+1140	+1677
Poland	+861	+506	+1111	+2869	+2008
Slovenia	–66	–113	–10	+292	+358
Slovakia	+142	–926	–1232	–688	–830

* Including trade with Cyprus and Malta.

Source: See table 1 and the author's own calculations.

Several important conclusions can be drawn from the figures. First, from the very beginning, the Czech Republic and Poland could build up strong surplus positions. While it remained stable for the Czech Republic, Poland could substantially increase its trade surplus in the last years. Second, traditional deficit countries include the Baltic states that raises some dilemmas (and contradictions) between high economic growth and international (regional) competitiveness. In other terms, the obvious difference between nominal and real convergence to the EU can be identified, at least based on intra-NMS trade figures. Third, Slovakia has lost its initial (slight) surplus position and started to accumulate heavy deficits, most probably as a consequence of rapid growth on one hand, but ambiguous and “one-sided” modernization on the other. Fourth, two countries, Hungary and Slovenia could change their original deficit position into a surplus. This change was relatively smooth and small for Slovenia but remarkable for Hungary. Between 2003 and 2006 the Hungarian trade balance with the NMS improved by almost EUR 1.7 billion. It can hardly be questioned that this has been an important indicator of enhanced competitiveness. However, the factors of the improvement have not yet been analysed in detail. Therefore, one can only speculate whether the dramatic change was the result of trade liberalisation in the other new members so that previous protectionism affected Hungarian exports very adversely. Or we can see behind the positive trend, a well-designed and longer-term regional strategy of transnational companies functioning in Hungary. Another factor, mentioned by some company leaders is that Hungary is able to produce up-market products that find growing demand in neighbouring countries without equivalent quality of domestic production. Moreover, it is unknown to what extent Hungarian

and Hungary-located small- and medium-sized companies started to profit from EU membership of the Central and North Eastern European countries. Furthermore, the favourable impact on Hungarian exports of high growth rates in the neighbouring countries has not been quantified. Finally, the role of the exchange rate, i.e. the devaluation of the Hungarian currency against the Czech or Slovak crown or, to a smaller extent, the Polish zloty should also be taken into account.⁹

It is not less noticeable that Hungary's bilateral trade balance with most NMS countries indicated surplus in 2006, being the only exception Poland and Malta. Developments between 2003 and 2006 are illustrated in Table 10. (Additional coverage ratios are included in Table S19.)

Table 10

Hungary's trade balance with the new member countries
(EUR million)

Country	2003	2004	2005	2006
Czech Republic	-234	-315	+20	+270
Estonia	-8	-5	-46	+9
Latvia	+27	+40	+58	+75
Lithuania	+26	+55	+90	+124
Poland	-303	-288	-384	-206
Slovenia	+66	+144	+298	+259
Slovakia	-75	-117	+248	+629
NMS 7	-501	-486	+284	+1.160
Malta	-47	-77	-130	-58
Cyprus	+12	+13	+36	+38
NMS 9	-536	-550	+190	+1.140
Bulgaria	+ 85	+150	+241	+341
Romania	+421	+683	+839	+751

* Based on Hungarian statistics (partly available corresponding Eurostat data indicate much lower values).

Source: The author's own calculations based on *Eurostat*: External and intra-European Union trade, various issues and the Hungarian Central Statistical Office's Monthly Report. *KSH* [2004]: *A KSH jelenti*. No. 12. Budapest.

Figures for the first half year of 2007 seem to reconfirm both high growth rate and sustainability of Hungary's surplus position in trade with the NMS. Exports in

⁹ Figures of 2006 do not reflect the potential export-generating impact of the Hungarian stabilization package. Due to the (almost) stagnating domestic consumption, a higher share of production is expected to look for and hopefully find new markets, including those in the NMS.

the first half year of 2007 were almost EUR 1.5 billion higher than in the comparable period of 2006, while imports increased by more than EUR 1 billion. Trade surplus reached almost EUR 600 million with the nine countries that joined in 2004, and were more than doubled if Bulgaria and Romania, two new members as of January 2007 are taken into account (EUR 1411.5 million against EUR 989 million a year earlier). Moreover, exports to NMS 12 (including Bulgaria and Romania) grew quicker than imports as compared to the first half-year figures of 2006 (31 vs. 28 percent). Finally, exports in the first half of 2007 were 29 percent higher than imports (as compared to 26 percent in the first half year of 2006). (For detailed statistical information see Table S20.)

3. Commodity pattern of NMS 8 trade after membership

The commodity structure of the EU 25 reflects the theoretically supported characteristics of trade of an integration consisting mainly of highly developed countries (at least as compared to most of its trading partners). Machinery and transport equipment (generally covering the overwhelming part of high-tech goods) accounts for more than 40 percent of total exports (and 35 percent of total imports). It also corresponds to the theory that this difference disappears in intra-EU trade, being machinery exports and imports (SITC 7) practically on the same level (37%). At the same time, the different levels of development are clearly manifested in the fact that in extra-EU exports the share of machinery exports represent a much higher share of total exports than in imports (44 vs. 30 percent). In addition, mainly fuel (almost a quarter of total extra-EU imports), raw materials and labour-intensive consumer goods account for a higher share in imports than in exports.

At the first glance, exports by NMS 8 reveal the same commodity pattern. However, some interesting contradicting theoretical assumptions can also be identified. First of all it may surprise that the share of machinery and transport equipment in total, intra-EU and extra-EU exports have a higher share than both in EU 25 exports and in the exports of (much) more developed members of the integration (47 percent in total, 48 in intra- and 45 percent in extra-EU exports). Second, chemicals (SITC 5) amount to a lower share in case of NMS 8 as compared to EU 25. Third, and this seems to underline theoretical assumptions, the share of manufactured goods classified by material (SITC 6) and other consumer goods (SITC 8), predominantly containing material- and labour-intensive products slightly exceeds the figures of EU 25 (excepting the share of SITC 8 in extra-EU exports of the NMS 8).

Table 11

*Comparison of the commodity structure of exports by EU 25 and NMS 8
(in percent of total exports)**

Commodity group	EU 25			NMS 8		
	Total	Intra	Extra	Total	Intra	Extra
SITC 0	5.8	6.5	3.4	5.6	5.4	6.0
SITC 1	1.3	1.1	1.6	0.6	0.5	0.9
SITC 2	2.6	2.7	2.2	2.8	3.0	2.1
SITC 3	5.8	6.1	4.6	4.6	4.5	5.1
SITC 4	0.3	0.4	0.2	0.1	0.1	0.1
SITC 5	15.0	13.8	15.8	7.2	6.0	11.4
SITC 6	16.0	16.7	14.4	19.5	19.6	19.2
SITC 7	40.6	36.7	43.8	47.3	48.0	44.8
SITC 8	10.8	10.6	11.3	11.6	12.1	9.7

* Deviations from 100 due to omission of SITC 9 and eventual roundings.

Source: Table 1 and the author's own calculations.

A comparison of the import structure of EU 25 and NMS 8 reflects the modernization efforts of the latter, since the share of machinery in total imports amounts to 40 percent (EU 25 35 percent). Similarly, manufactured products classified by material, a major input to industrial production and exports has a higher share (19 vs. 16 percent). In turn, the share of consumer goods, chemicals and energy are somewhat, but not significantly lower. Intra- and extra-EU trade pattern indicates features reflected in total trade pattern. Machinery exports of NMS 8 represent always a higher share than for EU 25. The higher share of SITC 6 in intra-EU imports of NMS 8 and the lower share of the same group in extra-EU imports of the group as compared to EU 25 means that the new members in their imports of manufactured goods overwhelmingly rely on intra-EU deliveries. Another smaller difference can be found in the underrepresentation of agricultural goods (SITC 0) in NMS 8 trade on each of the three levels (1. total, 2. intra, 3. extra). This is obviously the consequence of the Common Agricultural Policy, the main (exporting) beneficiaries of which are among the old member countries. Detailed figures have been collected in Tables 11 and 12. (Additional statistics in value terms have been attached on the overall commodity pattern of exports and imports of the EU 25 and the NMS 8 group in Tables S21., S22. and S23.)

Table 12

*Comparison of the commodity structure of imports by EU 25 and NMS 8
(in percent of total imports)**

Commodity group	EU 25			NMS 8		
	Total	Intra	Extra	Total	Intra	Extra
SITC 0	6.1	7.0	4.5	4.7	5.3	2.9
SITC 1	0.9	1.2	0.4	0.7	0.7	0.4
SITC 2	3.5	3.1	4.2	2.9	2.2	4.8
SITC 3	13.4	6.9	24.7	11.6	4.1	31.9
SITC 4	0.4	0.4	0.4	0.2	0.3	0.2
SITC 5	12.6	15.3	8.0	11.1	13.3	5.2
SITC 6	14.7	16.2	12.0	18.8	21.8	10.6
SITC 7	34.6	37.4	29.7	39.6	42.2	32.4
SITC 8	11.3	9.7	13.9	9.3	9.6	8.4

* Deviations from 100 due to omission of SITC 9 and eventual roundings.

Source: Table 1 and the author's own calculations.

Overall figures, however, hide substantial differences among the individual countries. Similar to the old members, the new members also have different groups of countries once the survey goes more into country-specific details. The pattern of exports in general, but the rather different share of machinery in particular sheds light on different levels of development, different technology content and different types (stages) of involvement into the global division of labour driven by transnational companies. Taking total exports of the NMS 8, and based on the share of machinery in total exports, at least four groups can be identified. The first and most developed category is represented by Hungary, with machinery exports reaching 62 percent of total exports. The second group includes the Czech Republic (53%) and Slovakia (48.5%). To the third group belong Poland (40.2%) and Slovenia (38.0%), although with rather different "fine structures". Finally, the bottom line is represented by the Baltic countries (between 16.6 percent for Latvia and 30.9 percent for Estonia). Almost similar categorisation can be made in intra- and extra-exports.¹⁰ Table 13 provides basic information that will not be further elaborated here in detail. (For more information on overall and intra-NMS commodity structure of the new members consult Tables S24. and S25., as well as Tables S26. and S27., respectively.) Here, just some important differences will shortly be highlighted.

¹⁰ In intra-exports of machinery Estonia would rather belong to the third group, together with Poland and Slovenia, while in extra-EU exports of machinery the figure for the Czech Republic approaches the corresponding figure for Hungary.

Table 13

Commodity pattern of NMS exports
(percent, total exports = 100.0)*

Country	SITC 0+1	SITC 2+4	SITC 3	SITC 5	SITC 6	SITC 7	SITC 8
Czech Republic							
intra	3.5	2.7	3.4	5.3	20.4	53.0	11.2
extra	2.8	1.6	0.5	8.3	23.0	53.0	9.8
total	3.4	2.6	2.9	5.8	20.8	53.0	11.0
Estonia							
intra	6.4	9.9	4.5	5.0	18.5	36.8	18.6
extra	7.1	8.1	35.6	6.2	13.3	19.8	9.8
total	6.6	9.4	15.1	5.4	16.7	30.9	15.6
Latvia							
intra	10.9	23.5	4.6	6.5	27.1	13.7	13.6
extra	15.4	8.5	6.6	11.5	22.3	23.9	11.6
total	12.2	19.3	5.2	7.9	25.8	16.6	13.0
Lithuania							
intra	13.6	5.7	23.1	10.0	11.9	16.6	19.1
extra	13.1	3.5	25.0	8.0	9.3	31.5	9.5
total	13.4	4.9	23.8	9.2	10.9	22.1	15.6
Hungary							
intra	4.8	1.9	1.0	6.3	9.9	64.2	9.2
extra	6.6	1.0	3.9	13.4	10.3	56.2	6.4
total	5.3	1.7	1.8	8.1	10.0	62.1	8.5
Poland							
intra	9.1	2.7	4.9	6.0	22.7	40.5	14.2
extra	9.4	1.6	2.8	11.0	24.7	39.3	11.1
total	9.1	2.5	4.4	7.1	23.2	40.2	13.5
Slovenia							
intra	3.6	3.3	3.1	8.3	25.6	41.1	14.9
extra	3.9	3.7	1.9	21.8	22.6	32.0	14.1
total	3.8	3.4	2.7	12.8	24.6	38.0	14.6
Slovakia							
intra	3.9	2.6	7.3	5.3	23.8	46.9	9.5
extra	2.9	1.4	1.1	6.7	21.9	57.5	8.3
total	3.8	2.4	6.4	5.5	23.5	48.5	9.3

* Deviations from 100 due to the omission of SITC 9

Note. One-digit SITC classification.

Source: Author's own calculations based on Eurostat [2007]: *External and intra-European Union trade*. Monthly Bulletin. No. 4.

Firstly, agricultural exports occupy a substantial share of total, intra- and extra-EU exports in Latvia and Lithuania. Secondly, exports of raw materials seem to be important items mainly for Latvia (almost a quarter of total exports to the EU) and Estonia. Energy exports are the most important single item in the commodity pattern of Lithuania as well as in extra-EU exports of Estonia. Thirdly, exports of chemicals represent a stout share in extra-EU exports of Slovenia. Fourthly, Hungary (and Lithuania) indicate strong deviation from the general pattern of NMS 8 concerning the share of manufactured goods classified by materials. The much lower share seems to indicate much less material-intensive production and export structures. Fifthly, final manufactured goods (mainly labour-intensive products) have a similarly clear underrepresentation in Hungarian and Slovakian exports.

Furthermore, Table 13 provides interesting information on the differences in the commodity pattern of intra-EU and extra-EU exports. However, for a more detailed and unbiased analysis further statistical figures are required that can be found in the share of the EU in total exports of the respective commodity groups. (See Table 14.)

Table 14

Share of intra-EU and extra-EU exports by NMS 8, classified into one-digit SITC categories, 2006
(percent)

Country	SITC 0	SITC 1	SITC 2	SITC 3	SITC 5	SITC 6	SITC 7	SITC 8	Total
Czech Republic									
intra	87.0	86.0	89.7	97.1	76.9	82.3	84.0	85.7	84.0
extra	13.0	14.0	10.3	2.9	23.1	17.7	16.0	14.3	16.0
Estonia									
intra	67.2	49.6	69.2	19.6	60.6	72.7	78.1	78.5	65.8
extra	32.8	50.4	30.8	80.4	39.4	27.3	21.9	21.5	34.2
Latvia									
intra	71.1	41.9	87.6	64.3	59.3	75.8	59.8	75.2	72.0
extra	28.9	58.1	12.4	35.7	40.7	24.2	40.2	24.8	28.0
Lithuania									
intra	64.9	59.2	72.6	61.3	68.2	68.5	47.4	77.4	63.1
extra	35.1	40.8	27.4	38.7	31.8	31.5	52.6	22.6	36.9
Hungary									
intra	67.1	75.2	86.0	43.5	57.3	73.4	76.5	80.5	74.0
extra	32.9	24.8	14.0	56.5	42.7	26.6	23.5	19.5	26.0
Poland									
intra	77.6	65.7	85.0	85.6	64.7	75.8	77.8	81.3	77.3
extra	22.4	34.3	15.0	14.4	35.3	24.2	22.2	18.7	22.7

(Continued on the next page.)

(Continuation.)

Country	SITC 0	SITC 1	SITC 2	SITC 3	SITC 5	SITC 6	SITC 7	SITC 8	Total
Slovenia									
intra	69.0	21.2	65.2	76.4	43.3	69.4	72.1	67.9	66.7
extra	31.0	78.8	34.8	23.6	56.7	30.6	27.9	32.1	33.3
Slovakia									
intra	88.3	88.9	91.2	97.3	81.7	86.1	82.3	86.8	85.1
extra	11.7	11.1	8.8	2.7	18.3	13.9	17.7	13.2	14.9
NMS 8 average									
intra	76.0	64.3	83.5	75.1	64.6	78.0	78.8	81.3	77.6
extra	24.0	35.7	16.5	24.9	35.4	22.0	21.2	18.7	22.4

Source: Author's own calculations based on Eurostat [2007]: *External and intra-European Union trade*. Monthly Statistics. No. 4.

Similar to the EU-orientation of total exports, almost all one-digit commodity group exports indicate a strongly integration-focusing structure. Considering the most important product groups, only a few deviations from the general rule can be observed. More than half of Slovenia's chemical exports and Lithuania's machinery exports are directed towards extra-EU markets. Moreover, Estonian (and Hungarian) energy exports are extra-EU-focused. Taking NMS 8 average figures, exports have a particularly heavy concentration on EU markets in raw materials, final consumer goods, machinery and also other manufactured products (all of them reveal higher shares than the average intra-EU share of 77.6 percent). It may also be noted that Hungarian agricultural exports indicate a relatively strong extra-EU orientation (33 percent as compared to a 26 percent share of extra-EU exports in total exports). The fundamental task of this section and the tables included was to analyse differences and similarities in the export structure of NMS, because it calls attention not only to structural differences but also to the factors of competitiveness and, consequently, to the sustainability of current processes. Of course, import structures are also influencing this process but to a less intensive and manifest way. Therefore, corresponding import statistics have been included into the internet Supplement. (See Tables S28. and S29.). In the same way, a more detailed list of the main double-digit commodity groups in total, intra- and extra-EU exports by the individual new member countries in 2006 (based on a threshold of EUR 1 billion for each double-digit group) has been attached to the Supplement. (See Table S30.)

Statistical figures on under- and overrepresentation of the NMS 8 exports, as compared to the corresponding EU 25 shares in different one-digit commodity groups have been summarized in Table 15.

Table 15

*Share of NMS 8 in EU 25 exports by main one-digit commodity groups**

Commodity group	In total EU 25 exports	In total intra-EU exports	In total extra-EU exports
SITC 0	7.9	7.5	9.9
SITC 3	6.6	6.6	6.4
SITC 5	4.0	3.9	4.1
SITC 6	10.1	11.2	7.5
SITC 7	9.6	11.7	5.8
SITC 8	8.8	11.0	4.8
SITC 0–9 (total average)	8.3	9.5	5.6

* Total exports being always 100.0.

Source: Table 1 and the author's own calculations.

The most important message of the figures is that the exports of the new member countries have a clear specialisation on manufactured goods. More importantly, they are clearly specialised on machinery exports in intra-EU exports (followed by specialisation on other manufactured goods as well). In contrast, they are underspecialised in agricultural exports. In contrast, extra-EU exports reveal the highest specialisation in agricultural products and in material-intensive manufactures. Machinery exports are only slightly “overrepresented”, while there is a “negative specialisation” on final consumer goods. (Country-specific details can be found in Table S31.)

Finally, the trade balance by major commodity groups deserves attention. (See Table 16.) Again, some countries strongly challenge the theoretical background, since the Czech Republic, Hungary and Slovakia have substantial surplus in their total and intra-EU trade of machinery and transport equipment. While, however, the Czech Republic and Slovakia show positive balance of machinery trade both in intra- and extra-EU relations, Hungary's large intra-EU surplus is accompanied by deficit in extra-EU machinery trade. This is not necessarily lacking competitiveness in extra-EU markets but a different micro-level structure of this sector in Hungary that underlines the intensity of global involvement of machinery-producing companies located in Hungary (and the consideration of locational advantages of Hungary not only in the European but in the global context). In contrast to Central European new members, high deficits in machinery trade characterise all Baltic countries. From the many interesting aspects the figures offer for deeper analysis, one more only has to be highlighted here. Looking at the agricultural trade of the new members, Poland, Hungary and Lithuania register surplus, while the other countries report deficit. This deficit is mainly or completely due to agricultural trade with EU countries and the

comparative advantage of the old members in this area, either due to the unilaterally beneficial impacts of the Common Agricultural Policy or to the different structures of agriculture (and the marketing organizations dealing with food products). In extra-EU agricultural trade all new members, excepting Slovenia, have a surplus (by far the highest surplus registered by Hungary). Hungarian figures refute the frequently expressed but mistaken view that following membership Hungary stopped to be a net agricultural exporter. Certainly, the traditional trade surplus with the EU countries had been declining in recent years (to EUR 152 million surplus in 2006), but surplus with extra-EU partners is substantial (and most probably enjoy the export-subsidy mechanism of the Common Agricultural Policy).

Table 16

Trade balance of total, intra-EU and extra-EU trade of NMS, 2006*
(EUR million)

Country	SITC 0	SITC 3	SITC 5	SITC 6	SITC 7	SITC 8	Total SITC0-9
Czech Republic							
total	-915	-4.910	-3.315	+671	+9.716	+398	+1.542
intra	-971	-280	-3.618	-631	+8.553	+742	+4.225
extra	+56	-4.630	+303	+1.302	+1.163	-344	-26.83
Estonia							
total	-170	-383	-572	-584	-1.546	+203	-2.765
intra	-235	-174	-614	-524	-1.385	+99	-2.583
extra	+65	-209	+42	-60	-161	+104	-182
Latvia							
total	-230	-930	-583	-408	-2.121	-379	-4.175
intra	-282	-280	-560	-257	-2.127	-354	-3.364
extra	+52	-650	-23	-151	+6	-25	-811
Lithuania							
total	+252	-799	-726	-1.134	-2.324	+633	-4.131
intra	+2	+1.514	-771	-1.030	-2.792	+476	-2.498
extra	+250	-2.313	+45	-104	+468	+157	-1.633
Hungary							
total	+873	-5.691	-1.024	-2.968	+5.879	+379	-1.979
intra	+152	-1.030	-2.232	-3.045	+7.650	+756	+3.012
extra	+721	-4.661	+1.208	+77	-1.771	-377	-4.991
Poland							
total	+2.394	-6.609	-7.318	-461	-166	+3.864	-11.900
intra	+1.932	+1.062	-7.795	-2.022	-408	+3.549	-3.757
extra	+462	-7.671	+477	+1.561	+242	+315	-8.143

(Continued on the next page.)

(Continuation.)

Country	SITC 0	SITC 3	SITC 5	SITC 6	SITC 7	SITC 8	Total SITC0-9
Slovenia							
total	-499	-1.592	+110	+267	+778	+783	-674
intra	-335	-923	-851	-289	-19	+446	-2.356
extra	-164	-669	+961	+556	+797	+337	+1.682
Slovakia							
total	-377	-3.021	-1.394	+1.600	+1.970	-570	-3.253
intra	-385	+686	-1.383	+1.215	+1.303	-469	+908
extra	+8	-3.707	-11	+385	+667	-101	-4.161

* According to selected one-digit SITC commodity groups.

Note. For corresponding coverage ratios see Table S31.

Source: Author's own calculations based on Eurostat [2007]: *External and intra-European Union trade*. Monthly Statistics. No 4.

4. Trade diversion – trade creation. Summary figures and conclusions

Following the description and analysis of intra-NMS trade features as well as some structural characteristics of the commodity pattern of exports (and partly imports), in the last part I return to the “mainstream” issue. How did the geographic orientation of NMS trade change as a result of the three years of membership in the EU?

In order to consider major geographic proportions and, at the same time, to call attention to the changes occurred, figures have been placed in two tables. Table 17 summarizes the share of intra- and extra-trade (with special reference to trade among the NMS, as part of EU trade), while Table 18 offers a dynamic picture by illustrating the percentage changes in trade orientation between 2003 and 2006. (For more detailed figures see Tables S32. and S33.)

Contrary to trade creation theories of regional integrations, the share of NMS 8 exports to the EU 25 in total exports was falling between 2003 and 2006. The average fall by 3.6 percentage points does not truly reflect the rather heterogeneous developments in the respective new member countries. Namely, a very dramatic reorientation of exports to extra-EU markets took place in Estonia (16.8 percentage points), but also in Hungary (7.1 percentage points) and Latvia (7.3 percentage points). Much more modest export reorientation to non-EU markets characterised Poland, the Czech Republic and Slovenia. In turn, two countries, Lithuania and Slovakia slightly increased the share of EU 25 in their total exports.

Table 17

Main geographic areas of NMS trade, 2003–2006
(percent, being total exports and imports, respectively, 100.0)

Country	Geographic area	Exports		Imports	
		2003	2006	2003	2006
NMS 8	Intra-EU	81.2	77.6	68.6	73.1
	EU 15	67.6	60.8	57.5	58.4
	NMS 10	13.6	16.8	11.1	14.7
	Extra-EU	18.8	22.4	31.4	26.9
Czech Republic	Intra-EU	86.3	84.0	71.0	80.0
	EU 15	69.8	65.6	58.9	64.1
	NMS-10	16.5	18.4	12.1	15.9
	Extra-EU	13.7	16.0	29.0	20.0
Estonia	Intra-EU	82.5	65.7	64.8	73.2
	EU 15	68.4	48.3	53.5	55.3
	NMS 10	14.1	17.4	11.3	17.9
	Extra-EU	17.5	34.3	35.2	26.8
Latvia	Intra-EU	79.3	72.0	75.4	76.0
	EU 15	62.0	41.8	51.0	44.5
	NMS 10	17.3	30.2	24.4	31.5
	Extra-EU	20.7	28.0	24.4	24.0
Lithuania	Intra-EU	62.5	63.2	55.8	62.4
	EU 15	43.1	38.0	44.2	41.9
	NMS 10	19.4	25.2	11.6	20.5
	Extra-EU	37.5	36.8	44.2	37.6
Hungary	Intra-EU	81.2	74.1	63.1	66.7
	EU 15	73.7	61.1	55.0	56.0
	NMS 10	7.5	13.0	8.1	10.7
	Extra-EU	18.8	25.9	36.9	33.3
Poland	Intra-EU	80.8	77.3	69.1	71.8
	EU 15	68.8	63.7	61.1	62.7
	NMS 10	12.0	13.6	8.0	9.1
	Extra-EU	19.2	22.7	30.9	28.2
Slovenia	Intra-EU	66.9	66.7	75.7	76.7
	EU 15	58.4	56.2	67.4	68.1
	NMS-10	8.5	10.5	8.3	8.6
	Extra-EU	33.1	33.3	24.3	23.3
Slovakia	Intra-EU	84.7	85.1	74.0	75.0
	EU 15	60.8	57.6	51.6	45.4
	NMS 10	23.9	27.5	22.4	29.6
	Extra-EU	15.3	14.9	26.0	25.0

Note. Intra-EU is equivalent to EU 25, while extra-EU includes all countries outside EU 25 (in conformity with the number of EU members as of the end of 2006).

Source: Table 1 and the author's own calculations.

Table 18

Shifts in the trade orientation of NMS, 2003–2006
(changes in percentage points)

Country		Exports	Imports
NMS 8	Intra-EU 25	-3.6	+4.5
	EU 15	-6.8	+0.9
	NMS 10	+3.2	+3.6
	Extra-EU 25	+3.6	-4.5
Czech Republic	Intra-EU 25	-2.3	+9.0
	EU 15	-4.2	+5.2
	NMS 10	+1.9	+3.8
	Extra-EU 25	+2.3	-9.0
Estonia	Intra-EU 25	-16.8	+8.4
	EU 15	-20.1	+1.8
	NMS 10	+3.3	+6.4
	Extra-EU 25	+16.8	-8.4
Latvia	Intra-EU 25	-7.3	+0.6
	EU 15	-20.2	-6.5
	NMS 10	+12.9	+7.1
	Extra-EU 25	+7.3	-0.6
Lithuania	Intra-EU 25	+0.7	+6.6
	EU 15	-5.1	-2.3
	NMS 10	+5.8	+8.9
	Extra-EU 25	-0.7	-6.6
Hungary	Intra-EU 25	-7.1	+3.6
	EU 15	-12.6	+1.0
	NMS 10	+5.5	+2.6
	Extra-EU 25	+7.1	-3.6
Poland	Intra-EU 25	-3.5	+2.7
	EU 15	-5.1	+1.6
	NMS 10	+1.6	+1.0
	Extra-EU 25	+3.5	-2.7
Slovenia	Intra-EU 25	-0.2	+1.0
	EU 15	-2.2	+0.7
	NMS 10	+2.0	+0.3
	Extra-EU 25	+0.2	-1.0
Slovakia	Intra-EU 25	+0.4	+1.0
	EU 15	-3.2	-6.2
	NMS 10	+3.6	+7.2
	Extra-EU 25	-0.4	-1.0

Source: Table 1 and the author's own calculations.

Even more interesting is the composition of export-share changes if we take into account the old EU 15 and intra-NMS trade separately. Since intra-NMS exports increased their share in total exports in all NMS, logically, the share of exports to EU 15 had to experience an even sharper decline than the previously mentioned average figures. Intra-NMS exports produced a particularly important increase in Latvia (12.9 percentage points), but also in Lithuania (5.8 percentage points) and Hungary (5.5 percentage points). As a result, EU 15 shares dropped dramatically in two Baltic countries (Estonia and Latvia, both with a percentage decline of more than 20 per cent) and in Hungary (12.6%). The main beneficiaries of this structural reorientation of exports were both new member countries and extra-EU partners. In case of Estonia but evidently in Hungary too, the main driving force consisted in extra-EU orientation of exports (although in Hungary NMS exports also played an important role). In other countries, higher NMS shares of exports could only partly compensate for the loss of EU 15 shares (excepting Slovakia).

In this context, some key strategic questions emerge that affect both structural characteristics and the assessment of overall international competitiveness of the individual NMS. To be sure, the rapidly growing non-EU orientation is a clear sign of enhanced global competitiveness (particularly, and rejecting widespread negative views, in the case of Hungary). Excepting, of course, the case if export reorientation takes place towards less competitive, protected and, at the end of the day, captive markets (in this context, the Estonian case needs further analysis). Moreover, reorientation of exports towards NMS markets can mostly be explained by the immediate lifting of protectionist barriers as of May 01, 2004, as well as the regional strategies of leading transnational companies located in selected NMS countries.

In contrast to exports, trade-creation theory could be verified by the developments in the geographic orientation of imports after membership. In total NMS 8 imports the share of the EU 25 grew by 4.5 percentage points. Much higher intra-EU orientation (at the same time, lower level of global resource seeking) can be identified in the case of the Czech Republic but also in two Baltic countries (Estonia and Lithuania). However, there is a big difference even in this case since the Czech orientation towards the EU 25 was largely driven by the growing share of EU 15 imports, while the Baltic countries (including Latvia) have achieved higher EU 25 shares due to much stouter shares of intra-NMS imports exclusively (look at the similar and not less interesting figures for Slovakia). Since the three small Baltic countries' intra-NMS trade is heavily concentrated on this trilateral flow, and the presence of large transnational companies is limited as compared to Hungary or the Czech Republic, intra-Baltic trade may easily turn out to be focused on "captive" and small markets. At least, growing regional-market orientation cannot be linked to stronger EU 15 orientation as an indicator of European (or global) competitiveness. In the most developed, increasingly competitive and structurally diversified Central

European countries both EU 15 and NMS shares were growing during the observed period (strongly in the Czech Republic and moderately in Hungary, Poland and Slovenia).

This paper tried to look at one of the most evident areas of the accession of 2004. First consequences on the geographic orientation and structure of trade can already be detected. Although they do not tell the full story, but can and should be used as important indicators (proxies) to explain the pattern of economic growth (high growth rates in themselves do not throw light on structure and sustainability), mezo- and micro-structural developments and, last but not least, competitiveness of the individual countries. In this context, the Hungarian performance should be assessed not only because of a number of misleading and superficial views but, more importantly, because only such an objective basis can support medium- and longer-term economic-strategy decisions.

Social-policy dilemmas in Hungary within the context of EU membership: Some problems of poverty

Klára Fóti

PhD, senior research fellow,
Institute for World Economics
of the Hungarian Academy
of Sciences

E-mail: kfoti@vki3.vki.hu

Recent research on poverty and social exclusion in Hungary concluded that despite the economic growth of the last couple of years (more than 3 percent annually), large disparities in the living conditions of society have not been eliminated and the most vulnerable groups seem not to have been reached by the benefits of growth. Although most recent data provide some evidence that the process of impoverishment may have eased to some extent, caution is still required before drawing straightforward conclusions for a longer run, since the chronic poverty is still stagnant. Data from various sources (TÁRKI Social Research Inc. and the Hungarian Central Statistical Office) show that the proportion of the poor has remained consistently in the range of 10-13 percent since 1997 (calculating with the most widely used poverty thresholds, i.e. with 50 and 60 percent of median income). It is evident that labour-market problems constitute an important source of poverty and social exclusion. Although unemployment in Hungary does not stand at a particularly high level (around 7.5 percent), the share of those who are in working age but inactive, is still very high (more than 40 percent). It is clear that future economic prospects will heavily influence not only the labour market, but also the scope of manoeuvre for social policy. Although currently it seems that the EU policies have an impact on shaping this policy, it remains to be seen to what an extent its influence could be translated into concrete actions, and whether they could be efficient enough to change the current situation to a considerable extent.

TÁRGYSZÓ: Social statistics.
Poverty and social deprivation.

Although in Hungary the economic growth resumed in the late 1990s after the deep “transformational” recession of the early 1990s, there are still considerable disparities in living conditions, and the consequences of the massive impoverishment during the recession remain apparent. Poverty has been deepening and persisting during the period of economic transformation. Although the most recent data provide some evidence that the process of impoverishment may have eased to some extent, caution is still required before drawing straightforward conclusions for a longer run, since chronic poverty is still stagnant. Calculating with the most widely used poverty thresholds (50 and 60 percent of median income), data from various sources (TÁRKI Social Research Inc. and Hungarian Central Statistical Office – HCSO) show that the proportion of the poor has remained consistently in the range of 10-13 percent since 1997.

Especially in the light of economic growth of the late 1990s, standing at an annual average at around 5 percent between 1997 and 2000, these trends are astonishing. What does explain the fact that economic recovery has failed to improve the income situation of many people, who may indeed have fallen irrevocably behind?

The “transformational” recession was very deep: until the mid-1990s GDP fell by about 20 percent. It had far-reaching consequences not only for the economic structure as such, but also to the sphere of social welfare. The crisis narrowed considerably the scope for manoeuvre in fiscal and social policy. But the shortage of adequate financial resources is obviously only part of the explanation. It is still, however, a relevant question why a comprehensive strategy for social policy, encompassing a system of supports for the poor, has not been set up.

Within this context, it seems justified to ask whether poverty was a matter of political concern at all. It seems that this issue has not been among the top priorities of successive governments (*Ferge* [2001]). Obviously, one reason for this is of an ideological nature. It roots in the neo-liberal ideology that gained ground after the political changes, according to which an efficient market economy requires the state to play only a minimal role.¹ This is reflected, among other things, in the legislation

¹ Its acceptance was also strongly supported by the World Bank, which played an influential role in shaping not only the economic but social policy too. As pointed out by *Ferge–Juhász* [2004] p. 234. the main elements of the Washington consensus included “strengthening of individual responsibility,... the emphasis on targeted assistance of the truly needy”, the shift from social insurance to private one, and “the abolition of universal benefit as wasteful”. It was in the austerity measures of 1995 (named after the finance minister at that time ‘Bokros package’), where this philosophy was most directly and visibly seen. For example, at that time the universal family allowance was abolished (later reestablished).

on social provisions adopted in 1993, which assigned increasing responsibility to local government, parallel with a withdrawal by the central state. As a result, successive governments have expected local-government authorities to alleviate poverty at a local level, although their inadequate institutional, financial and human resources have left them ill-equipped to carry out the responsibilities stipulated in the legal regulations.

Another factor contributing to the negligence of the issue of social exclusion has been increasing competition for funding from a dwindling quantity of state funds, which has tended to prevent attention focusing on deprived people, even the ones most in need. (The weak position of the “losers” makes it almost impossible for their voices to be heard (*Szalai* [1999]).

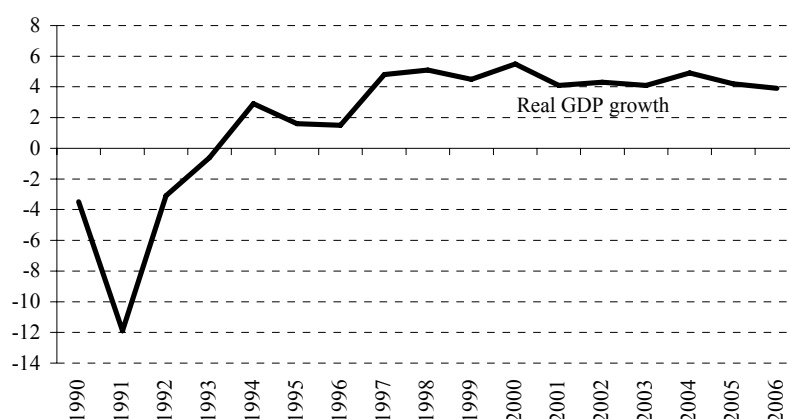
After three years of the Hungarian EU membership, the role of the EU in influencing social policy of the new members seems also relevant. If the accession process itself is considered, “the ideals and practices related to the European Social Model paid an unduly modest role in shaping CEE social policy during the enlargement” (*Ferge–Juhász* [2004] p. 234.) This is connected with the fact that social policy in the EU remained a subsidiary area, especially up to the late 1990s. In these days, however, the fight against social exclusion and poverty has become high on the agenda, especially since 2001. From then on, the member states had to prepare their own national action plans in order to translate the most important EU requirements into national practice. (In 2002 the 10 candidate countries prepared a “Joint Inclusion Memorandum” on this topic, which served as a basis for their national action plans, devised after their accession, in 2004.) In addition, the EU decision, taken in December 2001, to measure poverty and social exclusion on a permanent basis could also exert an indirect pressure on improving the effectiveness of social policies in all the members of the European Union. With the help of the 18 Laeken indicators, it will become not only possible to measure poverty and make cross-country comparisons, but with these tools the countries are able to analyse and monitor the progress they achieved within a certain period of time. Some of the results for Hungary are to be described in the following.

This paper is to deal with those social policy dilemmas which the country should face, especially as a member of the European Union. It outlines briefly the trends and the extent of poverty situation in Hungary as well as its main features. Therefore, the first section gives a general overview on the main economic and employment trends since the early 1990s; the second describes trends in poverty, based on macro-data and the results of some recent surveys. The third section is to be concerned with the frameworks provided by the European Union, and within this context the general strategy of Hungarian social policy. This section is also to deal with the current dilemmas and future perspectives of Hungarian social policy, with special regard to some of the problems of the social-assistance system.

1. Main economic and employment trends

In terms of GDP growth, the most recent period since 1990, known as the period of economic transformation, can be divided into four phases, as Figure 1 shows. The first (1990–1993) brought the collapse of the state-socialist economy and an aggregate GDP decrease of more than 18 percent. In the second (1994–1996), the recession gave way to a modest rate of expansion: aggregate GDP growth of 5.8 percent, which was equivalent to an annual average of almost 2 percent. In the third phase (1997–2000), the annual average growth was almost 5 percent, which can be regarded as outstanding compared with the historical performance of the Hungarian economy and with the performance of EU members and other Central and Eastern European (CEE) countries at the time. The fourth phase, which began in 2001 and seems to be persisting in 2007, has seen a deceleration of growth.

Figure 1. Annual real GDP growth, 1990–2006

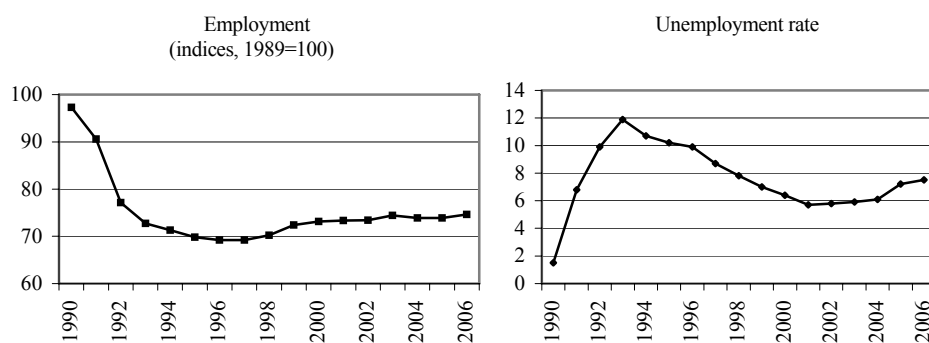


Source: Hungarian Central Statistical Office (HCSO). www.ksh.hu

As regards labour-market performance, it followed more or less the trend of GDP with a slight time lag. (See Figure 2.) This is reflected especially in the employment figures although it has to be noted that the employment level, even when it recovered slightly in the late 1990s, has never approached that of the year 1990. (This is understandable since full employment has been given up and high inactivity characterises the Hungarian labour market). Of course, unemployment shows an opposite trend to employment, but its peak was reached earlier (in 1993) than the nadir in employment (around 1995–1996). The reason for this disparity is assumed to lie mainly in the tighter eligibility conditions for unemployment benefit, which were

introduced already in 1992, when the rapid increase in unemployment put strong pressure on government spending. The entitlement period was cut initially from two years to 18 months and then in late 1992 to one year, which caused large falls in registration. In addition, the ratio of benefit to last wage was reduced. So the more restrictive system offered less incentive for the unemployed to register.

Figure 2. Trends in employment and unemployment, 1990–2006



Source: HCSO, Budapest. www.ksh.hu

As Figure 2 shows, the fall in the number of unemployed continued towards the end of the 1990s. An undoubted contribution to the impressive improvements in the unemployment figures came from a further cut in the entitlement period for unemployment benefit in 2000, to only nine months. Since 2001, however, employment seems to stagnate and slightly increase (from 2003), but unemployment increased, from 2004 by more than 1 percentage point.

When examining the labour market, it should be emphasised that growing imbalances led not only to unemployment, but also to a sharp fall in the population's participation rate in economic activity at the beginning of the transition. The CEE countries, including Hungary, in the state-socialist period had participation levels far higher than those in the developed market economies. In the case of Hungary, participation has fallen to an even lower level than in the "old" members of the EU,²

² The big fall in women's activity also contributed to this, which has been greater than men's, leading largely to the decreasing total participation mentioned already. One of the main reasons is that women faced with the difficulty of finding a job were more inclined to choose early-retirement schemes as a preferred way of withdrawing from the labour market: several hundred thousand took early retirement or simply became housewives. (Partly as a result of changed value judgments about women's role in the society, shown by a survey carried out during the 1990s (see Tóth [2000]). The fact that the retirement age used to be low under the planned economy (55 years for women, 60 years for men) contributed to the widespread use of these schemes. (Data also reflect these developments: the gender gap is the largest in the activity rate of the 55–59 age group, where it stands at 45.9 per cent for men and only 16.6 per cent for women.)

being at about 60 percent, whereas the average of the EU 15 is around 69 percent. This happened due to some measures against unemployment and also because a massive number of people voluntarily withdrew from the labour market. Examples of the former are “soft” methods of laying off workers, widespread resort to pre-retirement and early-retirement schemes and to disability pensions, especially in the first half of the last decade. Since the beginning of transition, it has also been a conscious policy to admit more students into higher education by giving them more places, financed by the state budget, and this tendency was reinforced by the emerging new private colleges and universities. (By reducing the available labour supply, this also contributed to a decline in the participation rate).

In 2007, however, not only do direct measures against unemployment affect adversely the participation rate, but other factors, as well. The poor performance is derived partly from the particularly low employment rate of the older population. This feature does not apply only to Hungary. In the “new” EU members of the region the average employment rate of the 55–64-year-old age group is lower than in the “old” EU members. (For example, in 2002, among males, the employment rate stood at around only 36 percent in Hungary, 41 percent in the new members, whereas it was 50 percent in the old members.) (<http://epp.eurostat.ec.europa.eu/>) Reasons for this lie not only in some inherited institutional effects, like the lower retirement age, which featured all these countries during the planned economy but also in other factors (see Footnote 2). One of the most important out of these is the poor health status of the population. It seems especially true for Hungary, where until very recently the average life expectancy at birth stood at a low level even by East-European standard. Under these circumstances, it can be even concluded that to some extent the low retirement age may be justified. The fact that employment rate of this age group is still low even when the retirement age was raised³ in itself indicates that there should be reasons other than just institutional, or problems of inheritance. In Hungary the very low figure is obviously due to labour market reasons too, namely to the sluggish demand towards older people. (Indeed, examining wages, a Hungarian labour economist (*Köllő* [2002]) proved that during the 1990s on the labour market in Hungary the accumulated experiences seemed to have been devalued against such “skills” as adaptability and flexibility, generally featuring the competencies of young people). As a response, disability-pension schemes became widespread: for example, among males even in the younger age group (50–55)

³ The process of increasing the retirement age began in 1997 when it was decided that it would have been raised on a gradual basis to 62 years by 2009 for both males and females. Women’s retirement age stood at a low level of 55 in 1997, so its increase started already then by elevating the retirement age by one year in every two years from then on. In the case of men, however, the increase began later, in the year of 2000, since their retirement age stood at a higher initial level of 60 years. (As a result, their retirement age has already reached the targeted 62 years.)

around 20 percent are in such pension, and in the next age group this share is even higher (being 27 percent) (*KSH* [2004]).

The process of economic transition from a planned to a market economy had catastrophic consequences especially for the Roma people, the largest ethnic minority in the country (their share is about 5-6 percent of the population) (*Fóti* [2003]). These effects are most apparent in the labour market. The industrialization process that took place under the planned economy facilitated the integration of Roma into a modern, industrial society, although their inclusion remained unstable even at that time, mainly because it occurred with some delay compared to the majority, and due to the discrimination against the Roma population. This meant that they stayed at the bottom end of the labour market, which made them vulnerable to any kind of changes there. Predictably, therefore, Roma were among the first to become unemployed in the late 1980s, when the first signs of economic crisis appeared, before the transition from a planned to a market economy. Most of those who lost their jobs found themselves unable to re-enter the labour market, and most of those who managed to nonetheless lost their chances of permanent employment (*Fóti* [2002]). These trends are clearly reflected in the data available. Representative surveys of the Roma show that between the mid-1980s and mid-1990s their employment rate dropped from 75 to 30 percent. A survey in the mid-1990s also indicated that Roma employment had characteristically high inflow and outflow rates and “an employment pattern – familiar from the Third World – of unstable employment and short employment spells emerging” (*Kertesi* [2002] p. 25.).

Despite the low unemployment figures a massive number of Hungarians do not have a job. Besides the aforementioned facts, it is explained also by high economic disparities across regions, small areas and different types of settlements. Labour mobility is low (due to various reasons, such as for example underdeveloped road network, high petrol prices, inadequate housing market, etc.), so the unemployment differentials across regions, emerged in the early 1990s, remained stubbornly large. The eastern part of the country and remote villages are especially adversely affected by the high regional economic disparities. (At the same time in some Western regions labour shortages can be observed.) It seems that absence from the labour market constitutes one of the most important risk factors in the incidence of poverty.

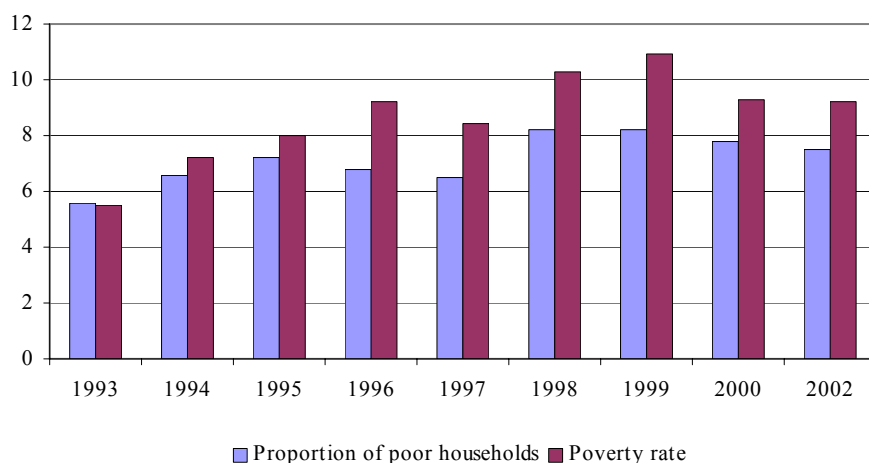
2. Overview on trends, extent and some features of poverty

In light of the mentioned economic and labour-market developments, it is not surprising that inequalities have widened further between the highest and lowest

income groups during the period of the late 1980s until the mid-1990s. The difference in average income between those in the uppermost and lowermost income deciles widened from 4.6fold in 1987 to 7.5fold in 1995. Rising income inequalities have certainly contributed to impoverishment and increase especially in income poverty over this period. Since then, obviously as a result of the economic growth of the late 1990s, the income inequalities have been stagnating. In 2004 the difference was estimated to stand at 7.6 (*KSH* [2007]).

As can be seen from Figure 3 and mentioned in the introduction, the proportion of the population living in income poverty stood at about 10 percent at the turn of the new millennium.⁴ There was a continuous rise up to 1996 and some fluctuations since then (but rather an increase can be observed from the level of 9.2 percent in 1996). According to *Havasi* [2003] the fluctuations are connected with the stop-go policies of successive governments. She pointed out that “government measures affecting the system of social provisions have not rested on a uniform, consensus-based welfare-policy concept. Instead, successive governments devise their policy on poverty according to altering values and interests, with restricted budgetary scope for its implementation” (*Havasi* [2003] p. 64.). The latter is reflected in a decrease of 30-40 percent in real value of social provisions and services between 1989 and 1998. Since then they have been stagnating. The exception is the election year of 2002, when some improvement could be observed (*Ferge–Juhász* [2004]).

Figure 3. Trends and extent of poverty



Source: *Kapitány–Sépter* [2004].

⁴ It is calculated as 60 percent of median income (using the OECD 1 equivalence scale).

A more recent survey of *Kapitány–Spéder* [2004], carried out in 2001/2002, estimates the poverty rate (based on income poverty⁵) to more than 11 percent, so in order of magnitude it does not differ very much from the Household Budget Survey (*Havasi* [2003]) although the authors emphasise that the results of the two surveys cannot be compared not only due to the entirely different methods applied, but also to considerable disparities in the sample. Other (income) data also confirm that the poverty rate in Hungary stands at around 10 percent (TÁRKI data, quoted by *Bass–Ferge–Márton* [2003]), and more recent figures for the years of 2002/2003 show a similar level: 10.9 percent (though this was calculated with just 50 percent of the median income based on per capita income, and cannot be compared with previous data (see *Szivós–Tóth* [2004]). According to *Ferge et al.* [2002], the rate increased from 10 percent to 15 percent between 1990 and 2001. The poverty threshold in this case was 50 per cent of the average income.

Most recent data also show similar order of magnitude: according to the Household Monitor Survey, carried out by TÁRKI (*Szivós–Tóth* [2004]), it stood at 12 percent in 2005, whereas another survey (*KSH* [2007c]), conducted within the framework of the EU-SILC programme (“Statistics on Income and Living Conditions”) in 2004 it was 13.4 percent. (Although the two surveys were based on similar methodology, with poverty threshold calculated as 60 percent of median income, and using OECD2 equivalence scale,⁶ they could hardly be compared directly due to other differences.

The concept and definition of poverty is subject of many debates. The notion of poverty is most often associated only with income poverty. In Hungary, however, there are long traditions of approaching poverty from the “needs” side.⁷ One of the problems with measuring it only with income is that those data are not very reliable. This is the reason why usually other dimensions are also included and compared with each other, even within one survey in order to gauge its extent. One of these dimensions is the so-called “subjective poverty threshold”, i.e. people are asked to estimate their own income situation. According to this definition, the poor are those who class themselves as such.

⁵ The threshold is defined as 50 percent of the average income per consumption unit (using a 0.73 equivalence scale) (*Kapitány–Spéder* [2004]).

⁶ When analysing income positions of people, it is the household which can be chosen as a relevant unit, but in order to compare their positions, their size and composition, i.e. consumption needs of the individual members of households should also be considered. This could be done with the help of the equivalence scales. The OECD constructed two. According to OECD1, the following values are set: 1 to the first adult, 0.7 to further adults and 0.5 to children (aged 0–14). In OECD2 the respective values are: 1, 0.5 and 0.3. Apparently, the applied equivalence scale has an impact on the results. As *Éllető* and *Havasi* [2002] have shown on the example of the Hungarian Household Budget Survey of 2000, the income inequality is wider when the OECD1 is applied, than using the OECD2. The authors elaborated a special Hungarian equivalence scale which they found more appropriate under the specific Hungarian conditions than the OECD scales (especially the OECD2).

⁷ On the traditions of poverty measurements in Hungary and on poverty measurement with various poverty thresholds see details in *Havasi* [2003].

Based on this definition, the Household Budget Survey (*Havasi* [2003]) found that 6.5 percent of households (240 000 households), almost 2 million people (less than 20 percent) can be regarded as poor. It is remarkable that most other surveys found similar results, i.e. about 20 percent.⁸ (The exception is one survey, commissioned by the ILO and the French government, which showed double of the usual 20 percent, but this had been designed to focus specifically on poor people since one of the sample-selection criteria of the survey was low income which was equivalent with the income of the poorest third of the population, identified by another survey (*Ferge–Tausz–Darvas* [2002])).

Not only is the extent of poverty a cause for concern in Hungary, but also its depth. There have been some fluctuations in its indicator (poverty gap) since the second half of the 1990s. The Household Budget Survey (HBS) (*Havasi* [2003]) carried out by the Hungarian Central Statistical Office (HCSO), showed even an increase during this period. In order to obtain an approximate picture about its trend, it is worthwhile to present the results of both the HBS and Household Panel, as well as Household Monitor surveys. In HCSO Household Budget Surveys (*Havasi* [2003]) poverty gap was 16.8 percent in 1997; 19.5 percent in 1998; 22.6 percent in 1999 and 21.7 percent in 2000 calculated as 60 percent of median income (using the OECD 1 equivalence scale). Meanwhile in TÁRKI Hungarian Household Panel and Household Monitor surveys (*Szivós–Tóth* [2006]) poverty gap was measured 16.8 percent in 1996; 19.1 percent in 2000; 18.9 percent in 2003 and 22.0 percent in 2005 calculated as 60 percent of median income, using the OECD 2 equivalence scale.

As can be seen, despite the meaningful economic growth of the late 1990s, there seems to be even some increasing trend. Although another recent survey (EU-SILC) (*KSH* [2007c]) shows that in 2004 the poverty gap stood at 18.8 percent, the preliminary data of 2005 suggest an increase.⁹ In Hungary it is well known that there is a group of poor people who are cut off from the labour market and deprived in many respects.¹⁰ In order to avoid reproduction of such a group, their social inclusion is of vital importance, meaning a real challenge for social policy. One of the key prerequisites to devise adequate policy measures is to know more about this group, its size and main characteristics. The data have continuously shown that poverty risk is especially high among children, i.e. in the lowest age group (0–15 years). Similarly to the previous years, in 2004 for

⁸ As *Ferge–Tausz–Darvas* [2002] made it clear the results were very similar in various separate research projects.

⁹ Data was calculated with the same method as by TÁRKI, i.e. 60 percent of the median income, using the OECD 2 equivalence scale.

¹⁰ According to an estimate, between 1992 and 1997 about 6.1 percent of the population lived continuously in poverty, below 50 percent of the average income for four or more years (based on TÁRKI data 2002, quoted by *Ferge–Tausz–Darvas* [2002]).

example, their risk exceeded the national average by 46 percent. If household types are considered, poverty rates of single-parent and large families (with three or more children) stand also higher than the national poverty rate: 38.9 percent and 33.2 percent as against 13 percent (*KSH* [2007c]). So apart from the labour-market position of the head of the household, the number of children and the household type are all decisive factors in determining whether a family falls below the poverty threshold. Researchers have long been warning of the particularly harmful effects of child poverty, as chances of the affected children are much lower for their social inclusion and labour-market participation. Being aware of the importance to prevent the reproduction of a new underclass, upon request of the current Prime Minister, elaboration of a new programme to fight against child poverty was launched in the autumn of 2005.

In Hungary, there have been some attempts to apprehend social exclusion¹¹ empirically, and to measure it (e.g. *Szivós-Tóth* [2004]; *Ferge-Tausz-Darvas* [2002]; *Kapitány-Spéder* [2004]; *Fóti* [1998] and *Fóti* [2003]). One of the most recent ones identified social exclusion not with the isolation process, but “with the ‘outcome’: cumulative poverty and deprivation... To capture cumulative poverty empirically, five fields of ‘deprivation’ considered important were examined: (1) income poverty, (2) consumption poverty, (3) subjective poverty, (4) housing poverty, and (5) housing-equipment poverty.”¹² According to this measurement attempt, those are classed as cumulative poor, who suffer from poverty in at least three out of the five dimensions. It can be estimated that about 12-13 percent of the population live in cumulative poverty in Hungary.¹³

The Table shows the position of the bottom income decile of the population as compared to the top income decile with respect of their expenditure. As can be seen, the expenditure pattern of the two groups is widely different. There are two of these differences which are the most conspicuous and important (but not surprising): 1. the bottom decile spend more than half of their income to food and to housing costs, so they have no choice but to spend the majority of their income to basic needs. As a consequence, their expenditure is lower in all other items.

¹¹ On the concept and definition on social exclusion see the works by *A. Atkinson* and *A. Sen*.

¹² The various dimensions were defined as follows. Income poverty: the threshold has been set at the lowermost quintile of personal net income; consumption poverty: if 45 percent or more was spent out of the total expenditure of a household; housing: a set of variables of the following three main factors: 1. social environment of the dwelling, 2. the condition of the dwelling, and 3. the standard of facilities in the dwelling; housing-equipment: provision of households with consumer durables; subjective: self-categorization (*Havasi* [2003]).

¹³ The Household Budget Survey found 416 thousand such households (1.1 million people). However, two groups, the so-called “institutional households” (people living in homes for the elderly, in prisons, etc.) and the homeless are not included in the survey. If they are added, the total amount of people living in cumulative poverty can be put at 1.2-1.3 million people. In the late 1990s (in 1998, 1999, and 2000) at least two dimensions of poverty were present in about 28 percent of all Hungarian households (*Havasi* [2003]).

*Structure of household spending in the lowest (1st) and the top (10th)
population deciles by main expenditure groups, 2005*
(percent)

Main expenditure groups	1 st decile	10 th decile	Proportion of decile 10 to decile 1
Food and comestibles	37.0	20.7	2.52
Clothing	5.2	5.3	4.52
Housing costs	22.3	15.6	3.15
Domestic and housing equipment	4.3	5.0	5.14
Health and body care	5.0	5.6	5.02
Transport and telecommunications	13.7	25.1	8.22
Culture, holidays and entertainment	5.9	10.9	8.27
Other personal expenditure	1.7	4.5	12.20
Housing investment (mortgage repayment)	4.9	7.3	6.7
<i>Total expenditure</i>	<i>100.0</i>	<i>100.0</i>	<i>4.49</i>

Source: KSH [2007a].

2. Apart from food, there is also a very wide gap in expenditure for transport and telecommunication. This reflects the fact that among households with the lowest income (1st decile) those living in villages are overrepresented.¹⁴ At the same time, the low transport expenditure also shows the isolation many of them (and their members) should suffer from. Especially in the case of working-age people, low share of transport costs could be regarded as a symptom of low labour mobility which, as mentioned, is one of the reasons of high regional labour-market differences. Another alarming phenomenon is that the gap is also wide in the case of the expenditure for culture, holidays and entertainment. It does not only demonstrate huge differences in the access to various cultural goods, but a virtual lack of chances for upward mobility, especially for children and young people. In addition, lower expenditure for holidays reflects less opportunity for members of households in the first income decile for recreation, thus preventing ill-health.

It can be well assumed that the Roma are especially exposed to cumulative poverty. Their aforementioned poor labour-market position shows in itself their particular vulnerability. Although it is problematic of analysing their situation

¹⁴ A previous survey, carried out in 2000, revealed similar differences between the non-poor and the excluded poor. According to that survey, 53 percent of the latter live in villages, whereas of the national population only 33.8 percent live there (*Havasi [2003]*).

separately,¹⁵ some quite recent surveys made an attempt to compare it to that of the majority of the population. Their findings confirmed that the Roma are overrepresented among those who live in cumulative poverty. For example, in *Ferge-Tausz-Darvas* [2002], the survey carried out in mid-2001 and focused on poor people (called by the authors “the sample of the poor”), the Roma became heavily overrepresented (more than 200 households out of about 1000), although this had not been the original intention.¹⁶ This certainly happened because a low income threshold¹⁷ was defined for the sample. In addition, the majority of the households, having at least one Roma member (60 percent), belonged to the bottom income third of the “sample of the poor” (i.e. the poorest group even among the poor people). The *Kapitány-Spéder*[2004] survey carried out more or less at the same time (late 2001), found that more than half of the Roma population¹⁸ can be regarded as poor, whatever dimension is examined (income poverty, bad housing conditions, absolute deprivation, etc.). Their share among those who have bad housing conditions is especially high, more than 20 percent (in the whole sample share of the Roma stands at only 4.4 percent), and this highlights that the Roma are especially exposed to persisting poverty. In addition, in one of the sub-samples of *Kapitány-Spéder* [2004] i.e. of families with three or more children, the majority of respondents from families with no working members at all are Roma, and in the majority of Roma families none of the members are employed. This highlights their extremely poor labour-market position, which is closely connected with their social exclusion.

As regards the main causes of poverty, all the surveys have unanimously found that apart from these ethnicity and labour-market reasons (and other factors relating to the latter, such as low educational attainment), it is mainly large families (with three or more children) who are at high risk of becoming poor.¹⁹ This fact in itself highlights those challenges that the social-assistance policy and the family-benefit system have to face.

¹⁵ For example, the Household Budget Surveys do not register the respondents by ethnicity, and this is understandable in light of the difficulties when collecting data on the Roma. Reasons lie not only in the problems of definition (who can be regarded as Roma), but also in the sensitivity of this issue and provisions of the law on personal-data protection.

¹⁶ The sample can be regarded as representative along age, gender and size of settlement, so it was emphasised that all deviation from the national average (e.g. higher number of those living in villages), apart from the possible sampling errors, can be attributed to the fact that the given group is overrepresented among the poor (*Ferge-Tausz-Darvas* [2002]). The large weight of the Roma is one example for this.

¹⁷ HUF 20 thousand (about 80 euros), which was at that time equivalent with the income threshold of lowermost third population (*Ferge-Tausz-Darvas* [2002]).

¹⁸ In this survey, two groups of the Roma are distinguished: those who identify themselves as Roma, and those who are regarded as Roma by the interviewers, but there is not significant difference in their poverty (*Kapitány-Spéder* [2004]).

¹⁹ According to the latest TÁRKI data, the poverty rate of families with three or more children is about 26 percent, four and a half times higher than families with two children (6%) (*Szivós-Tóth* [2004]).

3. Social-policy dilemmas within the context of EU membership, with special regard to social assistance

Some of the main constraints of and problems with social policy have already been mentioned. The topic of poverty and social exclusion has become an important part of public discourse by the early years of the new millennium in Hungary (relating partly to visible signs of deep poverty and partly to recent interests in these issues at the EU level, mentioned in the introduction). Data on the extent and trends of poverty, however, provide ample evidence on the current situation, which is still paradoxical. Although at present the EU encourages convergence towards the European Social Model, in the early and mid-1990s they approved “the changes in the new member states that promoted the ‘Americanization’ rather than the Europeanization of social policy” (Ferge–Juhász [2004] p. 235.).

The social-assistance system has serious shortcomings, making it unable to fulfil its function in an adequate way. Many of the problems are connected with the fact that there is no declared “official poverty line” in Hungary. In addition, although the level for entitlement under welfare programmes (the minimum pension or some proportion of that sum) is guaranteed by the state, it is lower than any of the poverty threshold defined and examined in this paper.²⁰ For example, in 2000 it stood at only 87 percent of the 60 percent median income threshold (Fóti [2003]), and since then it has even lost its real value.

Another problem is that since each benefit is tied to a specific target group, there are very poor families who fall through the welfare net because they do not fit into any of these groups (like, for example, large families with children,²¹ unemployed, etc.). Current inefficiency obviously derives from the fact that the Hungarian benefit system does not have a general benefit that gives support below a certain level of income. Now there seems political will to remedy this problem: There is “...a need to ensure, within a relatively short period of time, a socially accepted minimum level of subsistence for all...” (Ministry of Health, Social and Family Affairs [2003]). Experts suggest that this should be modified from time to time, adjusted to changes in living conditions and circumstances (Ferge–Tausz–Darvas [2002]).

²⁰ This is the reason why share of households and population living below the minimum pension is lower than the poverty rate, calculated at any of the thresholds. In 2000 these shares were 4.8 percent and 7 percent, respectively (Havasi [2003]).

²¹ For example, according to a survey by the Hungarian Central Statistical Office, large families seem to be preferred by the system but “the preference is not discernible with all poverty thresholds”. At the same time, the survey found that among “families with children, the targeting of benefits increased with the number of children” (Monostori [2003] p. 83) As pointed out by König [2004], however, this does not show an adequate provision for large families, but rather the fact that the adult population in income poverty is undersupported.

If the categorised system were supplemented with this rather general category, other disadvantages such as uncertainty and unpredictability (experienced over the last 15 years) could also be removed (*Fóti* [2003], *Monostori* [2003]). This problem seems currently a very topical issue because over the past five years the social-assistance system has been shrinking. (The number of beneficiaries has decreased by more than 200 thousand, and spending was cut by 10 percent (*Ferge–Juhász* [2004], *König* [2004]). This happened at a time when poverty has not been eased as evidence presented in this paper has shown.

Another shortcoming of the benefit system is that it ignores the economies of scale within families, considering individual family members, instead of the cohabiting community to which the individual belongs. For example, an investigation shows that households in which adult offspring cohabit with their parents are insufficiently assisted by comparison with their poverty risk. Hence it is necessary to set different entitlement thresholds for different types of family/cohabiting community (*Ferge* [1996]).

Reasons for inefficiency of social assistance lie, however, not only in the aforementioned arrangements. Data indicate that there are also other reasons than the mentioned ones explaining why the welfare assistance covers only a fraction of the poor households (*Monostori* [2003]). The reason for this lies partly in the lack of information from the part of the public,²² partly in the role local governments play in social assistance. As mentioned before the legislation on social provisions of 1993 assigned increasing responsibility to them. These changes led to over-decentralisation, as recognised also by the “Joint Memorandum on Social Inclusion of Hungary” (*Ministry of Health, Social and Family Affairs* [2003]). In 2007 central regulations on welfare benefits are too broad and vague. They only provide guidance, putting excessive burdens and responsibilities on local-government authorities, which tend to over-regulate their systems (*Szalai* [2004]), and exercise continuous pressure to increase discretion (*Ferge–Juhász* [2004]). To improve the efficiency of the system, central regulations and state funding need to be strengthened. The latter is also important as evidence shows that local-government authorities in poorer regions are themselves poor in resources. In principle, the system of social standards could help in this respect, which takes into account a number of indicators that measure how depressed a given region is. It is an open question, however, whether the system can effectively reflect the potential number of benefit recipients (*Fóti* [2003]). The government seems to have recognised this problem, which is reflected in recent simplification of the family-benefit scheme (after various suggestions for its

²² It is true that it is much to be done in informing the public about the welfare benefits that can be claimed (*Ferge–Tausz–Darvas* [2002]). *Havasi* [2003] emphasised that the absence of necessary channels between the potential claimants and the authorities is still a problem, and *Fóti* [2003] suggested that here the role of NGOs needs increasing and churches could also be involved in order to help in outreach.

transformation).²³ The budgetary sources for the family-benefit scheme, however, have increased only by 10 percent (*Darvas–Tausz* [2006]).

As mentioned previously, the elaboration of a new programme against child poverty was launched in 2005. General objectives of the programme include the eradication of the extreme forms of social exclusion, the reduction of the number of poor households with children. The programme envisages integrated measures of improving the parents' labour-market position, development of skills for young children, decreasing segregation, providing better social services, easier access to health care and securing more favourable housing. The programme plans to take affirmative actions for reducing discrimination (ethnic and against other disadvantaged groups, like disabled children).

Undoubtedly, these goals are very impressive, and if only partly implemented, they can improve chances of future generations to a considerable extent. It remains to be seen, however, whether amidst strict budgetary considerations current decision-makers will show such a long-term vision and political determination which make possible to perform this large-scale programme, and whether future governments will continue these efforts.

4. Conclusions

It is beyond doubt that future economic prospects will heavily influence the scope of manoeuvre for social policy. Although currently it seems that the EU would have an impact on shaping it, it remains to be seen to what an extent its influence could be translated into concrete actions. It is true that from the part of the EU it is a "major achievement to have put the issue of poverty and social exclusion on the political agenda". It is an open question, however, whether "the 'Social Model' of the EU will be considered a model for the poorer and more recent member countries" (*Ferge–Juhász* [2004] p. 234.). Within this context, it is also a relevant question how the EU requirements concerning convergence towards the European Social Model could be harmonised with other needs, formulated also at EU level (for example, fulfilling the

²³ See for example *Ferge–Tausz–Darvas* [2002] and *Darvas–Mózer* [2004]. The latter authors suggest that, among other things, in order to meet the aforementioned requirements, i.e. the system should be based more on normative support and for the sake of higher transparency, the three main family benefits 1. the universal family allowance, 2. the regular income-tested child-protection benefit (recently called supplementary family allowance), and 3. the family-tax allowance should be amalgamated. (See details in *Darvas–Mózer* [2004]) However, the family-tax allowance and the regular income-tested child-protection benefit still exist, although they lost their importance, and the family allowance was raised.

Maastricht criteria, which require very strict budgetary control, limiting further the social-policy expenditure).

In addition, in the new members, including Hungary, a discernible social model has not been developed. As regards Hungary, with the expression of Zsuzsa Ferge, it could be called rather a hybrid model, where the measures do not constitute a coherent system (quoted by Tausz [2006]). Linked to the lack of a clear-cut, long-term vision, in Hungary there is no consensus nowadays on some crucial questions, which have important implications on social policy. For example, there are still debates about not only “whom”, but also “how” to support those who are in need (possible shifts towards means-tested allowances from universal ones, whether the tax system should include social-policy considerations, etc.). In a broader sense, so far there has been no consensus about the role of the state in general and in supporting the poor.

References

- ÁGOSTON L. ET AL. [2006]: *Gyermekszegénységi programok – Legjobb gyakorlatok*. www.demos.hu/Letoltes
- BASS L. – FERGE ZS. – MÁRTON I. (eds.) [2004]: [2004]: *Gyorsjelentés a szegényedéstről, 2000–2003*. Szociális Szakmai Szövetség. Budapest.
- DARVAS Á. – MÓZER P. [2004]: Kit támogassunk? *Esély*. Vol. 15. No. 6. p. 64–99.
- DARVAS Á. – TAUSZ K. [2006]: *Gyermekszegénység*. Budapest. www.demos.hu/Letoltes
- ÉLTETŐ Ö. – HAVASI É. [2002]: Impact of choice of equivalence scale on income inequality and on poverty measures. *Review of Sociology*. Vol. 8. No. 2. p. 137–148.
- FERGE ZS. [1996]: A magyar segélyezési rendszer reformja. *Esély*. Vol. 7. No. 1. p. 25–33. No. 2. p. 3–24.
- FERGE ZS. [2001]: A magyarországi szegénységről. *INFO-Társadalomtudomány*. Vol. 17. No. 54. p. 17–26.
- FERGE ZS. – TAUSZ K. – DARVAS Á. [2002]: *Fight against poverty and social exclusion. Vol. I. Case study on Hungary*. ILO, Central and East-European Team. Budapest.
- FERGE ZS. – JUHÁSZ G. [2004]: Accession and social policy: The case of Hungary. *Journal of European Social Policy*. Vol. 14. No. 3. p. 233–251.
- FÓTI K. (ed.) [1998]: *Human development report for Hungary, 1998*. Institute for World Economics of the Hungarian Academy of Sciences and United Nations Development Programme. Budapest.
- FÓTI K. [2002]: *Problems with equality at work in Hungary – Current situation, concepts and policy* (background paper prepared for the 2004 ILO Global Report on the Elimination of Discrimination). Manuscript. Budapest, Geneva. Working paper.
- FÓTI K. (ed.) [2003]: *Alleviating poverty: Analysis and recommendations, human development report for Hungary 2000–2002*. Institute for World Economics of the Hungarian Academy of Sciences and United Nations Development Programme. Budapest.

- FÓTI K. [2004]: *Néhány gondolat a szociálpolitika mozgásteréről, jövőbeli alternatíváiról, lehetőségeiről* (elméleti háttér, általános és konkrét stratégiák). Manuscript. Budapest. Working paper.
- HAVASI É. [2003]: Poverty and social exclusion in Hungary today. In: Fóti K. (ed.): *Alleviating poverty: Analysis and recommendations, Human Development Report for Hungary 2000–2002*, Budapest, Institute for World Economics of the Hungarian Academy of Sciences and United Nations Development Programme. Budapest.
- MINISTRY OF HEALTH, SOCIAL AND FAMILY AFFAIRS [2003]: *Joint memorandum on social inclusion of Hungary (JIM)*. Hungary. Brussels.
- KAPITÁNY B. – SPÉDER ZS. [2004]: *Szegénység és depriváció (Társadalomszerkezeti összefüggések nyomában)* Working Papers No. 4. NKI KSH. Budapest.
- KERTESI G. [2002]: *The decline and structural change of Romany employment between 1984 and 1994 (a longitudinal analysis)*. Manuscript. Budapest. Working paper.
- KÖLLŐ J. [2002]: Tudásavulás és „öregedés” a rendszerváltozás utáni Magyarországon. *Magyar Tudomány*. Vol. 109. No. 4. p. 440–446.
- KÖNIG É. [2004]: A segélyezés Bermuda-háromszöge. *Esély*. Vol. 15. No. 1. p. 38–53.
- KSH [2004]: *Társadalmi helyzetkép, 2003*. Budapest.
- KSH [2007a]: *Társadalmi jellemzők, 2006*.
<http://portal.ksh.hu/pls/ksh/docs/hun/xftp/idoszaki/pdf/tarsjell.pdf>
- KSH [2007b]: *Társadalmi helyzetkép, 2005*. www.ksh.hu
- KSH [2007c]: *A társadalmi kirekesztődés nemzetközi összehasonlítása (Laekeni indikátorok)*. www.ksh.hu
- MONOSTORI J. [2003]: Poverty and social assistance. In: Fóti K. (ed.): *Alleviating poverty: Analysis and recommendations, Human Development Report for Hungary 2000–2002*. Budapest, Institute for World Economics of the Hungarian Academy of Sciences and United Nations Development Programme.
- SZALAI J. [1999]: *Power and poverty*. Manuscript. Budapest. Working paper.
- SZALAI J. [2004]: A jóléti fogda – I., *Esély*. Vol. 15. No. 6. p. 19–36.
- SZALAI J. [2005]: A jóléti fogda – II., *Esély*. Vol. 16. No. 1. p. 3–32.
- SZIVÓS P. – TÓTH, I. GY. (eds.) [2004]: *Stabilizálódó társadalomszerkezet*. TÁRKI, Monitor-jelentés. Budapest. www.tarki.hu
- SZIVÓS P. – TÓTH, I. GY. (eds.) [2006]: *Feketén, fehérén*. TÁRKI, Monitor-jelentések, 2005. Budapest. www.tarki.hu
- TAUSZ K. [2006]: A jóléti állam Európában és Magyarországon. In: *Vízi E. Sz. – Teplán I. – Szentpéteri J.* (eds.): *Előmunkálatok a társadalmi párbeszédhez (a Gazdasági és Szociális Tanács felkérésére készített tanulmányok)* Gazdasági és Szociális Tanács. Budapest. <http://econ.core/doc/parbeszed/parbeszed/.html>
- TÓTH O. [2000]: *Changing role of women in the transition period*. Manuscript. Budapest. Working paper.

The impact of EU accession on the agricultural trade of the Visegrád countries*

Judit Kiss

DSc., professor of economics,
research director of the Institute
for World Economics
of the Hungarian Academy
of Sciences

E-mail: jkiss@vki.hu

The main aim of the article is to analyse how agricultural trade of the Visegrád countries has changed after EU accession. Whether the Czech Republic, Hungary, Poland and Slovakia managed to increase their market shares in the enlarged EU or struggled with import penetration? Which countries are in the winning position and which are the victims of the increasing competition. What are the underlying causes and what are the prospects?

KEYWORDS: Agricultural statistics.
International analyses, comparisons.

* The author would like to thank for *Gábor Túry*, research fellow of the Institute for World Economics of the Hungarian Academy of Sciences for collecting data and to *Ms. Annamária Paksai* for formulating tables and figures.

The Visegrád countries (the Czech Republic, Hungary, Poland and Slovakia), the so-called V 4 had great expectations towards the EU accession in 2004. They had especially great assumptions of the impact of joining the EU on their agricultural sectors. All the more, as agriculture – despite significant structural changes – played and still plays a more significant role in their economies than in the EU 15. While in the EU 15 agriculture produces less than 2 percent of the GDP, in case of the new member states the contribution of agriculture to GDP is 3.8 percent.¹ (Kiss [2005b]) Furthermore, the share of agriculture in employment in the new member states is still significant: it was 12.5 percent in 2004 compared to 3.8 percent in the old member states, indicating lower labour productivity and efficiency in the new member states.

Nevertheless, agriculture was one of the most sensitive issues of the accession negotiations, because after the joining of the 8 CEECs (Central and Eastern European Countries) agricultural land in the EU has increased by 25 percent (38 million hectares²), agricultural production by 10 percent and the number of agricultural producers by 50 percent (*Enlargement, two years after ...* [2006]).

One of the aspects of agricultural accession is the impact of (almost full-fledged) EU membership on agricultural production, on consumer prices and on the income of agricultural producers. The other aspect concerns trade in agricultural products. With due regard to the complexity of the issue, this paper deals only with the impact of EU accession on V 4 agricultural foreign trade.³ Though already more than three years have passed since the accession, it is a very short period of time for drawing longer-term conclusions. In addition, data are not available for the whole period, and the change of the statistical system also makes analysis and comparison somewhat difficult. However, these three years might be sufficient to make a first-hand analysis, to draw preliminary conclusions and to accomplish the necessary corrections.

1. Agricultural trade of the Visegrád countries after accession

Between 2003 and 2006 the total agricultural exports of the Visegrád countries increased by 81 percent, from 8.7 billion euros to 15.7 billion euros. (See Eurostat data.

¹ On the agriculture of the new member states see Kiss [2005b].

² 28.5 million hectares out of the 38 million hectares can be found in the Visegrád countries (*Lukas–Mladek* [2006]).

³ The CEECs' agricultural foreign trade prior to accession was analysed by Fertő [2006].

www.epp.eurostat.ec.europa.eu). As total agricultural exports grew more dynamically than total exports, the share of agricultural products in total exports increased slightly, by 0.3 percentage point (from 5.9 percent to 6.2 percent). (See Table 1.)

Table 1

Agricultural trade of the Visegrád countries, 2003–2006
(million euros)

Year	Imports	Exports	Balance
2003	8 301	8 707	406
2004	10 574	10 786	212
2005	12 897	13 658	761
2006	14 744	15 765	1 021

Source: Here and in the following tables (where not indicated) the author's own calculations based on Eurostat database. <http://epp.eurostat.ec.europa.eu>

At the same time agricultural imports grew less dynamically than agricultural exports; they increased by 77.7 percent and their value changed from 8.3 billion euros to 14.7 billion euros. However, as agricultural imports grew more dynamically than total imports, the share of agricultural products in total imports in case of the V 4 countries grew from 4.9 percent to 5.4 percent between 2003 and 2006 (Eurostat data). With agricultural exports increasing at a higher speed than agricultural imports, the region managed to keep and even improve its net agricultural export position.

It is self-evident that the positions of the individual Visegrád countries differ at a significant extent. (See Table 2.) The most dynamic export growth occurred in case of Poland, the leading agricultural exporter of the region. While Polish agricultural exports doubled between 2003 and 2006, Hungarian agricultural exports increased only by 23 percent in the same period of time. Even the Czech Republic – which is not a typical agricultural exporter – managed to increase its agricultural exports by 83 percent. Comparing agricultural export- and import-growth rates, the greatest difference can be revealed in case of Hungary: this country is the only one among the Visegrád countries where agricultural-export growth lagged significantly behind agricultural-import growth.

As far as agricultural-trade balances are concerned, two countries (the Czech Republic and Slovakia) remained net agricultural importers, while the other two Visegrád countries, namely Poland and Hungary are still net agricultural exporters. However, while Poland managed to increase its agricultural-trade surplus (from 459 million euros to 2.1 billion euros), Hungary's agricultural-trade balance deteriorated

and trade surplus has been halved. The main issue is whether these changes are due to EU accession or not.

Table 2

Agricultural trade of individual Visegrád countries
(million euros)

Year	Imports	Exports	Balance
Czech Republic			
2003	2394	1495	-899
2004	2929	1884	-1045
2005	3430	2538	-892
2006	3906	2733	-1172
Hungary			
2003	1461	2677	1216
2004	2007	2927	920
2005	2360	2965	605
2006	2624	3297	674
Poland			
2003	3510	3968	459
2004	4404	5204	801
2005	5447	7095	1648
2006	6307	8441	2134
Slovakia			
2003	933	567	-367
2004	1234	771	-463
2005	1660	1060	-601
2006	1907	1294	-613

Source: The author's own compilation based on Eurostat database.

As a consequence of the mentioned changes the significance of agricultural products in the individual countries' foreign trade has also changed. While in case of Poland the share of agricultural products in total exports have increased definitely,⁴ in case of Hungary it has decreased. As far as imports are concerned, the share of agricultural goods has increased in all the Visegrád countries. (See Table 3.)

⁴ It is nearly 10 percentage points yet.

Table 3

*The share of agricultural products in the individual countries' foreign trade
(percent)*

Year	Imports	Exports
Czech Republic		
2003	5.2	3.5
2004	5.2	3.4
2005	5.6	4.0
2006	5.3	3.6
Hungary		
2003	3.5	7.0
2004	4.1	6.6
2005	4.4	5.9
2006	4.3	5.6
Poland		
2003	5.8	8.3
2004	6.1	8.6
2005	6.7	9.9
2006	6.3	9.6
Slovakia		
2003	4.7	2.9
2004	5.1	3.5
2005	5.8	4.1
2006	5.2	3.9

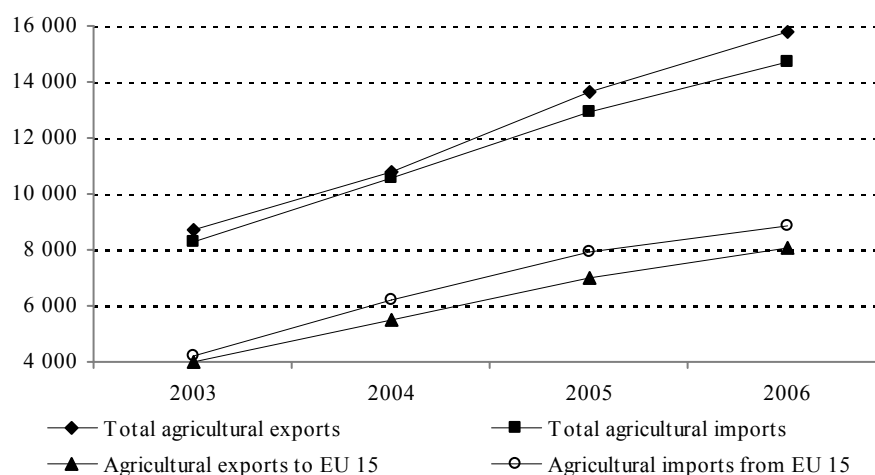
2. Agricultural trade with the old member states (EU 15)

As Eurostat data show between 2003 and 2006 the agricultural exports of the Visegrád countries to the EU 15 almost doubled. Their volume has increased more dynamically than total exports to the EU 15 and at a faster pace than total agricultural exports. At the same time agricultural imports have also increased very dynamically: between 2003 and 2006 they grew by 2.1 times. (See the Figure.)

With agricultural imports growing more dynamically than agricultural exports, the V 4 countries' agricultural-trade balance in relation to the EU 15 has deteriorated

further: while before accession the deficit stood at 182 million euros, by 2006 it reached 788 million euros.

*Total agricultural trade of the Visegrád countries
and their agricultural trade with the EU 15, 2003–2006
(million euros)*



Source: The authors own calculations based on Eurostat database.

Of course, the situations of the individual V 4 countries are different. (See Table 4.) The most dynamic export growth has occurred in Slovakia, while the greatest increase in absolute terms has been reached by Poland. Even the Czech Republic managed to have increased its agricultural exports at a higher rate than Hungary. That is, Hungary was the very country out of the V 4 which could not make proper use of the improving market-access opportunities (possibilities). One of the main causes is the lower than the Polish price competitiveness of Hungarian agricultural products due to higher production costs, including higher labour costs. The other cause has a temporary nature and relates to the insufficient preparedness of Hungarian administration for EU accession. This shortcoming can be eliminated in the short run.

In contrast to exports, agricultural imports from the old member states have (almost) doubled in each Visegrád countries. As a consequence of the aforesaid trends, agricultural-trade balances in the Visegrád countries – with the exception of Poland – have deteriorated. In case of Hungary – having been the only net agricultural exporter prior to accession – agricultural-trade surplus has almost vanished (Kiss [2007]).

Table 4

Agricultural trade of individual V 4 countries with the EU 15
(million euros)

Year	Imports	Exports	Balance
Czech Republic			
2003	1255	570	-685
2004	1784	790	-993
2005	2142	1059	-1083
2006	2440	1181	-1259
Hungary			
2003	774	1307	533
2004	1218	1529	311
2005	1530	1538	8
2006	1634	1643	9
Poland			
2003	1853	2036	184
2004	2778	2974	196
2005	3673	4115	442
2006	4161	4903	742
Slovakia			
2003	325	112	-213
2004	444	212	-233
2005	558	316	-242
2006	619	339	-280

Source: The author's own compilation based on Eurostat database.

2.1. The share of the old member states in the Visegrád countries' agricultural trade

As a result of the mentioned trade flows, the relational structure of the Visegrád countries' agricultural trade has also changed. In case of agricultural exports, the share of the EU 15 has increased by 5 percentage points. (See Table 5.) It indicates that in agricultural trade significant pre-accession market-access barriers remained in effect, despite the Association Agreement of 1991 and other measures of trade liber-

alisation. In contrast to industrial products, trade in agricultural goods has been liberalised to the extent of 92 percent only before accession.

Table 5

*The share of the EU 15 in the Visegrád countries' agricultural trade
(percent)*

Year	Exports	Imports
2003	46.3	50.7
2004	51.0	58.9
2005	51.5	61.3
2006	51.2	60.1

At the same time, after accession the Visegrád countries' agricultural markets have also been fully opened for the old member states. Before accession agricultural markets of the Visegrád countries have been liberalised to an extent of 85 percent (Kiss [2005b]). This provides a partial explanation for the 10-percentage-point increase of the old member states' share in the Visegrád countries' agricultural imports. The other explanatory factor is embedded in the change of the statistical system: as far as import statistics are concerned, the basis of registration is not the country of origin, but the country of sender (forwarder). Consequently, agricultural imports items originating from overseas or from developing countries appear in the statistics as German or Dutch imports.

Of course, the individual Visegrád countries managed to make use of the slightly improving market-access opportunities at various extents. Furthermore, the degrees of import penetration were also different in case of the individual V 4 countries. According to data in Table 6, before accession the EU market was more significant for Poland and Hungary: at that time around 50 percent of their agricultural exports was directed to the market of the EU 15. However, the EU market was less significant for the Czech Republic, and especially for Slovakia, as the majority of their agricultural trade was conducted between themselves in the framework of a customs union. Albeit, after accession all the Visegrád countries – with the exception of Hungary – managed to increase their market shares in the EU 15 by 5-6 percentage points.

As far as agricultural imports are concerned, in case of three countries (Poland, the Czech Republic and Hungary) the share of the EU 15 has increased significantly, by 13.1, 10.1 and 9.2 percentage points, respectively. In case of Slovakia the share of the EU 15 has decreased, which might be due to increasing purchases from the new member states.

Table 6

*The share of the EU 15 in individual Visegrád countries' agricultural trade
(percent)*

Year	Exports	Imports
Czech Republic		
2003	38.0	52.4
2004	41.9	60.9
2005	41.7	62.4
2006	43.2	62.5
Hungary		
2003	48.8	53.0
2004	52.2	60.7
2005	51.9	64.8
2006	49.8	62.3
Poland		
2003	51.3	52.8
2004	57.1	63.1
2005	58.0	67.4
2006	58.1	66.0
Slovakia		
2003	19.8	34.8
2004	27.5	36.0
2005	29.8	33.6
2006	26.2	32.4

2.2. The share of the Visegrád countries' in the EU 15' agricultural trade

As it has been proved by the previous analysis, the old member states play an increasing role both in the agricultural exports and, especially, in the agricultural imports of the Visegrád countries as a consequence of accession. The main issue is how the share of the Visegrád countries has changed in the old member states' agricultural trade after accession.

According to Table 7, between 2003 and 2006 the Visegrád countries were more important as markets for the EU 15 than as sources of supply. Though after accession the significance of the V 4 countries has increased, they still play a marginal role in

the old member states' agricultural trade. While the share of the Visegrád countries has increased both at the export and import side, the rise was slightly higher in case of agrarian exports (1.49 percentage point) than that of imports (1.21 percentage point).

Table 7

*The share of the Visegrád countries in the agricultural trade of the EU 15
(percent)*

Year	Exports	Imports
2003	1.84	1.75
2004	2.65	2.29
2005	3.18	2.76
2006	3.33	2.96

2.3. The commodity structure

The commodity structure of the Visegrád countries' agricultural trade with the EU 15 will be analysed on a country-by-country basis during the period between 2003 and 2006 in most product groups according to the SITC nomenclature.

The Czech Republic. According to data in Table 8 in relation to the EU 15 the most dynamically increasing Czech export items were dairy products, beverages and cereals. Products of the sugar industry were also important.

Table 8

The commodity structure of Czech agricultural exports to and imports from the EU 15, 2003–2006

Commodity groups	2003	2004	2005	2006	2003	2004	2005	2006
	million euros				percent			
	Exports							
0 Food and live animals	420	622	886	952	73.7	78.7	83.7	80.6
00 Live animals	23	55	81	90	4.0	7.0	7.6	7.6
01 Meat and meat preparations	21	47	39	40	3.7	5.9	3.7	3.4
02 Dairy products, eggs	44	112	171	247	7.7	14.2	16.1	20.9
03 Fish	26	28	29	31	4.6	3.5	2.7	2.6
04 Cereals and cereal preparations	89	56	175	178	15.6	7.1	16.5	15.1

(Continued on the next page.)

(Continuation.)

Commodity groups	2003	2004	2005	2006	2003	2004	2005	2006
	million euros				percent			
05 Vegetables and fruits	43	53	71	67	7.5	6.7	6.7	5.7
06 Sugars, sugar preparations	66	153	168	118	11.6	19.4	15.9	10.0
07 Coffee, tea, cocoa, spices	39	43	61	74	6.8	5.4	5.8	6.3
08 Feeding stuff for animals	26	27	40	41	4.6	3.4	3.8	3.5
1 Beverages and tobacco	100	115	108	145	17.5	14.6	10.2	12.3
11 Beverages	86	95	97	114	15.1	12.0	9.2	9.7
12 Tobacco	13	19	12	31	2.3	2.4	1.1	2.6
4 Animal and vegetable oils	11	12	30	43	1.9	1.5	2.8	3.6
Total agricultural exports to EU 15	570	790	1059	1181	100.0	100.0	100.0	100.0
	Imports							
0 Food and live animals	945	1346	1644	1910	75.3	75.4	76.8	78.3
00 Live animals	7	10	17	19	0.6	0.6	0.8	0.8
01 Meat and meat preparations	61	170	264	303	4.9	9.5	12.3	12.4
02 Dairy products, eggs	42	63	110	141	3.3	3.5	5.1	5.8
03 Fish	25	32	48	57	2.0	1.8	2.2	2.3
04 Cereals and cereal preparations	74	97	116	144	5.9	5.4	5.4	5.9
05 Vegetables and fruits	299	429	490	616	23.8	24.0	22.9	25.2
06 Sugars and sugar preparations	41	54	67	67	3.3	3.0	3.1	2.7
07 Coffee, tea, cocoa, spices	106	149	186	188	8.4	8.4	8.7	7.7
08 Feeding stuff for animals	171	207	201	205	13.6	11.6	9.4	8.4
1 Beverages and tobacco	115	215	265	277	9.2	12.1	12.4	11.4
11 Beverages	92	144	160	181	7.3	8.1	7.5	7.4
12 Tobacco	23	71	105	96	1.8	4.0	4.9	3.9
4. Animal and vegetable oils, fats	88	97	97	107	7.0	5.4	4.5	4.4
Total agricultural imports from EU 15	1255	1784	2142	2440	100.0	100.0	100.0	100.0

Note. Here and in the following tables total agricultural exports/imports include not only the analysed product categories (0+1+4), but the non-analysed product category 29 (crude animal and vegetable materials) as well, consequently, the sum of 0+1+4 is less than the total figure.

Source: Here and in the following tables the author's own compilation and calculations based on Eurostat database.

As far as Czech agricultural imports from the EU 15 are concerned, the most important items were vegetables and fruits due to the increasing tropical-fruit deliveries from third countries via the EU 15 countries. In addition, imports of coffee, tea, spices have also increased significantly. Feeding stuff for animals and meat and meat preparations were also substantial import items. (See Table 8.)

Hungary. In contrast to Czech agricultural exports – in which the value of all export items has increased without exception – in case of Hungarian agricultural exports to the EU 15, there were 3 commodity groups, whose export value has decreased in absolute terms. (See Table 9.) These were the meat and meat preparations, fruits and vegetables, and the beverages commodity groups. The decrease is mainly due to the low competitiveness of these products. In spite of the significant decrease, even now, a quarter of Hungarian agricultural exports still consists of meat and meat products. The main question is whether Hungary will manage to stop the process of market loss to regain its previous markets. In addition, there are several product categories (for example, coffee, tea, spices, feeding stuff, animal fat and vegetable oil) in which case the value of exports has stagnated. The only product group whose exports have increased dynamically were cereals. In their case the value of exports almost tripled between 2003 and 2006, and for the moment 20 percent of Hungarian agricultural exports to the EU 15 is given by this product category. The significant growth of cereals exports is mainly due to the rapidly increasing domestic production. However, data in Table 9 indicate that Hungarian commodity structure in relation to the EU 15 has not changed in a desirable direction after accession.

Table 9

The commodity structure of Hungarian agricultural exports to and imports from the EU 15, 2003–2006

Commodity groups	2003	2004	2005	2006	2003	2004	2005	2006
	million euros				percent			
	Exports							
0 Food and live animals	1161	1351	1411	1504	88.8	88.4	91.7	91.5
00 Live animals	59	71	81	87	4.5	4.6	5.3	5.3
01 Meat and meat preparations	419	425	401	384	32.1	27.8	26.1	23.4
02 Dairy products, eggs	31	35	39	56	2.4	2.3	2.5	3.4
03 Fish	5	4	13	4	0.4	0.3	0.8	0.2
04 Cereals and cereal preparations	112	193	297	349	8.6	12.6	19.3	21.2
05 Vegetables and fruits	292	278	251	288	22.3	18.2	16.3	17.5
06 Sugars, sugar preparations	65	82	101	101	5.0	5.4	6.6	6.1
07 Coffee, tea, cocoa, spices	33	28	26	34	2.5	1.8	1.7	2.1
08 Feeding stuff for animals	126	138	139	118	9.6	9.0	9.0	7.2
1 Beverages and tobacco	60	58	52	55	4.6	3.8	3.4	3.3
11 Beverages	58	50	44	41	4.4	3.3	2.9	2.5
12 Tobacco	2	6	7	12	0.2	0.4	0.5	0.7
4 Animal and vegetable oils	9	13	9	9	0.7	0.9	0.6	0.5
Total agricultural exports to EU 15	1307	1529	1538	1643	100.0	100.0	100.0	100.0

(Continued on the next page.)

(Continuation.)

Commodity groups	2003	2004	2005	2006	2003	2004	2005	2006
	million euros				percent			
	Imports							
0 Food and live animals	578	938	1220	1263	74.7	77.0	79.7	77.3
00 Live animals	9	34	60	26	1.2	2.8	3.9	1.6
01 Meat and meat preparations	60	134	198	185	7.8	11.0	12.9	11.3
02 Dairy products, eggs	44	60	94	116	5.7	4.9	6.1	7.1
03 Fish	9	11	16	19	1.2	0.9	1.0	1.2
04 Cereals and cereal preparations	40	70	86	98	5.2	5.7	5.6	6.0
05 Vegetables and fruits	145	187	230	246	18.7	15.4	15.0	15.1
06 Sugars and sugar preparations	14	16	26	35	1.8	1.3	1.7	2.1
07 Coffee, tea, cocoa, spices	65	101	125	151	8.4	8.3	8.2	9.2
08 Feeding stuff for animals	92	144	187	186	11.9	11.8	12.2	11.4
1 Beverages and tobacco	68	114	103	145	8.8	9.4	6.7	8.9
11 Beverages	55	84	93	106	7.1	6.9	6.1	6.5
12 Tobacco	14	25	4	28	1.8	2.1	0.3	1.7
4 Animal and vegetable oils, fats	50	50	59	49	6.5	4.1	3.9	3.0
Total agricultural imports from EU 15	774	1218	1530	1634	100.0	100.0	100.0	100.0

Fruits and vegetables remained the most important Hungarian import items from the old member states, though their share has decreased after accession. At the same time the imports of meat and meat preparations, and that of dairy products have almost tripled. Their share has also increased significantly. (See Table 9.) These developments might give a serious warning to Hungarian meat and dairy industries. Feeding stuff also remained a significant import commodity group. Its import value has increased due to the changing registration system, namely that overseas shipments are registered as EU imports.

Poland. In case of Poland both the value and the share of meat and meat preparations, and that of milk and dairy products have increased significantly in the country's agricultural exports to the EU 15. These trends are due mainly to the high and increasing competitiveness of the products concerned. Between 2003 and 2006 the value of the Polish dairy exports to the EU 15 increased by 6 times. At the same time the share of vegetables and fruits decreased though their export value was at an increase. In case of Poland one can reveal the same tendency like in case of the Czech Republic, namely that the exports of all the products have increased in absolute terms. (See Table 10.)

There were no radical changes in the commodity structure of Polish agricultural imports from the EU 15, though the value of agricultural imports has increased in all

the commodity groups. The most important import items were fruits and vegetables, representing around a quarter of total agricultural imports from the EU 15. The other three quarters of imports were distributed rather evenly. A slight increase has occurred in case of meat and meat preparations, representing less than 10 percent of total agricultural imports from the EU 15. (See Table 10.)

Table 10

The commodity structure of Polish agricultural exports to and imports from the EU 15, 2003–2006

Commodity groups	2003	2004	2005	2006	2003	2004	2005	2006
	million euros				percent			
	Exports							
0 Food and live animals	1850	2711	3744	4392	90.9	91.2	91.0	89.6
00 Live animals	112	169	212	239	5.5	5.7	5.2	4.9
01 Meat, meat preparations	339	493	745	984	16.7	16.6	18.1	20.1
02 Dairy products, eggs	101	315	569	613	5.0	10.6	13.8	12.5
03 Fish	202	295	414	540	9.9	9.9	10.1	11.0
04 Cereals, cereal preparations	48	119	299	285	2.4	4.0	7.3	5.8
05 Vegetables and fruits	801	855	966	1145	39.3	28.7	23.5	23.4
06 Sugars, sugar preparations	56	159	122	92	2.8	5.3	3.0	1.9
07 Coffee, tea, spices	76	142	155	197	3.7	4.8	3.8	4.0
08 Feeding stuff for animals	58	80	110	112	2.8	2.7	2.7	2.3
1 Beverages and tobacco	31	90	130	205	1.5	3.0	3.2	4.2
11 Beverages	28	60	84	100	1.4	2.0	2.0	2.0
12 Tobacco	3	30	47	105	0.1	1.0	1.1	2.1
4 Animal and vegetable oils, fats	3	23	67	123	0.1	0.8	1.6	2.5
Total agricultural exports to EU 15	2036	2974	4115	4903	100.0	100.0	100.0	100.0
	Imports							
0 Food and live animals	1398	2099	2843	3252	75.4	75.6	77.4	78.2
00 Live animals	32	56	81	61	1.7	2.0	2.2	1.5
01 Meat and meat preparations	75	216	369	389	4.0	7.8	10.0	9.3
02 Dairy products, eggs	32	52	96	127	1.7	1.9	2.6	3.1
03 Fish	67	171	319	355	3.6	6.2	8.7	8.5
04 Cereals, cereal preparations	87	188	187	249	4.7	6.8	5.1	6.0
05 Vegetables and fruits	423	594	816	979	22.8	21.4	22.2	23.5
06 Sugars, sugar preparations	62	63	78	100	3.3	2.3	2.1	2.4
07 Coffee, tea, cocoa, spices	202	289	332	382	10.9	10.4	9.0	9.2
08 Feeding stuff for animals	244	239	284	268	13.2	8.6	7.7	6.4

(Continued on the next page.)

(Continuation.)

Commodity groups	2003	2004	2005	2006	2003	2004	2005	2006
	million euros				percent			
1 Beverages, tobacco	108	226	309	308	5.8	8.1	8.4	7.4
11 Beverages	91	120	163	194	4.9	4.3	4.4	4.7
12 Tobacco	15	106	146	114	0.8	3.8	4.0	2.7
4 Animal and vegetable oils, fats	175	208	219	274	9.4	7.5	6.0	6.6
Total agricultural imports from EU 15	1853	2778	3673	4161	100.0	100.0	100.0	100.0

Slovakia. Slovakian agricultural exports to the EU 15 have also increased in all product categories. The country's agricultural exports are characterised by a high degree of specialisation as 20 percent of exports consists of dairy products and another 20 percent of cereals. The share of both product groups increased between 2003 and 2006. Sugar exports have also increased significantly, its share has doubled. At the same time the share of live animals has decreased from 16 to 11 percent.

Table 11

The commodity structure of Slovakian agricultural exports to and imports from the EU 15, 2003–2006

Commodity groups	2003	2004	2005	2006	2003	2004	2005	2006
	million euros				percent			
	Exports							
0 Food and live animals	91	180	279	309	81.3	84.9	88.3	91.2
00 Live animals	18	29	28	38	16.1	13.7	8.9	11.2
01 Meat and meat preparations	6	15	27	20	5.4	7.1	8.5	5.9
02 Dairy products	14	27	63	67	12.5	12.7	19.9	19.8
03 Fish	1	1	1	1	0.9	0.5	0.3	0.3
04 Cereals and cereal preparations	15	21	38	70	13.4	9.9	12.0	20.6
05 Vegetables and fruits	14	30	30	24	12.5	14.2	9.5	7.1
06 Sugars, sugar preparations	7	28	41	46	6.3	13.2	13.0	13.6
07 Coffee, tea, cocoa, spices	8	20	34	30	7.1	9.4	10.8	8.8
08 Feeding stuff for animals	8	7	8	7	7.1	3.3	2.5	2.1
1 Beverages and tobacco	16	19	17	17	14.3	9.0	5.4	5.0
11 Beverages	10	12	13	14	8.9	5.7	4.1	4.1
12 Tobacco	6	7	5	3	5.4	3.3	1.6	0.9
4 Animal and vegetable oils, fats	3	8	12	8	2.7	3.8	3.8	2.4
Total agricultural exports to EU 15	112	212	316	339	100.0	100.0	100.0	100.0

(Continued on the next page.)

(Continuation.)

	Imports							
0 Food and live animals	263	347	430	501	80.9	78.2	77.1	80.9
00 Live animals	3	3	7	10	0.9	0.7	1.3	1.6
01 Meat and meat preparations	18	39	66	60	5.5	8.8	11.8	9.7
02 Dairy products, eggs	9	15	23	23	2.8	3.4	4.1	3.7
03 Fish	7	8	10	12	2.2	1.8	1.8	1.9
04 Cereals, cereal products	18	21	26	31	5.5	4.7	4.7	5.0
05 Vegetables and fruits	63	107	136	171	19.4	24.1	24.4	27.6
06 Sugars, sugar preparations	16	13	11	20	4.9	2.9	2.0	3.2
07 Coffee, tea, cocoa, spices	28	44	57	74	8.6	9.9	10.2	12.0
08 Feeding stuff for animals	59	64	53	60	18.2	14.4	9.5	9.7
1 Beverages and tobacco	28	35	61	44	8.6	7.9	10.9	7.1
11 Beverages	18	20	28	32	5.5	4.5	5.0	5.2
12 Tobacco	10	15	33	13	3.1	3.4	5.9	2.1
4 Animal and vegetable oils, fats	15	25	22	32	4.6	5.6	3.9	5.2
Total agricultural imports from EU 15	325	444	558	619	100.0	100.0	100.0	100.0

As far as Slovakian agricultural imports from old member states are concerned, the most considerable increase has occurred in the vegetables and fruit-product category. Its share has almost reached 30 percent. The second and the third most important commodity groups were coffee, tea, spices, and meat and meat preparations.

2.4. The relational (geographical) structure

The most important export partners for the Visegrád countries in relation to the EU 15 are Germany, Austria and Italy. While the shares of Germany and Austria show a decreasing tendency, that of Italy is on the increase. Further significant export markets are Great Britain and the Netherlands. (See Table 12.)

Table 12

The geographical structure of the Visegrád countries' agricultural exports to and imports from the EU 15, 2006

Country	Exports		Imports	
	million euros	percent	million euros	percent
Austria	607.80	8.11	531.30	6.50
Belgium	240.00	3.20	395.00	4.83

(Continued on the next page.)

(Continuation.)

Country	Exports		Imports	
	million euros	percent	million euros	percent
Germany	3044.90	40.61	2846.90	34.81
Denmark	29.20	0.39	423.00	5.17
Spain	277.20	3.70	662.30	8.10
Finland	61.30	0.82	50.20	0.61
France	439.50	5.86	523.30	6.40
Great Britain	740.30	9.87	240.70	2.94
Greece	168.40	2.25	136.60	1.67
Ireland	42.23	0.56	64.10	0.78
Italy	982.70	13.11	717.00	8.77
Luxemburg	4.20	0.06	3.50	0.04
The Netherlands	673.40	8.98	1313.70	16.07
Portugal	18.30	0.24	16.70	0.20
Sweden	168.50	2.25	253.00	3.09
EU 15	7497.93	100.00	8177.30	100.00

Note. Due to the roundings the total can be different from 100.

For the Visegrád countries the most considerable import partners are Germany and the Netherlands from where around 50 percent of the EU 15's agricultural imports arrive. Further significant suppliers are Spain, Italy and Austria. Agricultural imports are more concentrated than agricultural exports.

3. Agricultural trade with the new member states

The next issue to be covered is what impact EU accession made on agricultural trade among the new member states. According to data in Table 13 Poland and Slovakia managed to increase their agricultural exports to the new member states very dynamically: both countries have doubled the value of agricultural exports to the newly joined countries. Even the Czech Republic succeeded in increasing its agricultural exports by 80 percent, while in case of Hungary agricultural exports grew only by 60 percent. As far as agricultural imports from the new member states are concerned, the import penetration was the most vehement in Hungary: between 2003 and 2006 agricultural imports from the new members tripled, while in the other V 4 countries they "only" doubled. That is, accession had a very significant trade-creation effect in the intra-trade of the new member states. Emerging opportunities were mainly utilised by countries with low production costs.

Table 13

Agricultural trade of the Visegrád countries with the new member countries (EU 10)
(million euros)

Year	Imports	Exports	Balance
Czech Republic			
2003	550	636	87
2004	705	802	97
2005	910	1093	182
2006	1152	1197	45
Hungary			
2003	221	356	136
2004	416	444	29
2005	524	470	-54
2006	689	567	-122
Poland			
2003	324	593	268
2004	398	799	401
2005	525	1171	646
2006	624	1585	961
Slovakia			
2003	448	365	-83
2004	654	469	-185
2005	977	627	-350
2006	1140	807	-333

Apart from price competitiveness, the activity of foreign capital in the agro-food sector also had a significant impact on intra-trade in the field of agriculture. This aspect is analysed by a recent study of the Research Institute of Agricultural Economics (Budapest). According to the authors, the relatively poor performance of Hungarian agricultural exports to the new member states is due to the fact that Hungarian investments in the Visegrád countries' food economy might replace former commodity exports and might generate additional agricultural imports (*Kürti et al.* [2007]).

The main beneficiary of the expanding agricultural intra-trade was definitely Poland which managed to increase its agricultural trade surplus in relation to the new member states by 3.5 times. (See Table 13.) While the Czech Republic was able to maintain its trade surplus, in case of Slovakia agricultural trade deficit in relation to the new member states has increased by 4 times. Unfortunately, Hungary turned to be the main loser as its pre-accession agricultural trade surplus has vanished and the

value of agricultural-trade deficit in relation with the new member states has increased significantly (*Kiss [2007a]*).

The next issue to be discussed is how the relational structure of the Visegrád countries' agricultural trade changed in relation to the new member states. According to data in Table 14, in agricultural exports – with the exception of Slovakia – the share of the new member states has increased (by 4 percentage points in the cases of Hungary and Poland). That is, accession has opened up the agricultural markets of the new member states for each other. As far as agricultural imports are concerned, the situation varies. In Polish trade the share of the new member states did not change significantly, they failed to conquer new markets in the country. In Hungary and Slovakia the share of the new member states has increased by 11 percentage points, while in the Czech Republic by 6.6 percentage points.

Table 14

The share of the new member countries in the Visegrád countries' agricultural trade (percent)

Year	Exports	Imports
Czech Republic		
2003	42.5	22.9
2004	42.6	24.1
2005	43.1	26.6
2006	43.7	29.5
Hungary		
2003	13.3	15.1
2004	15.2	20.7
2005	15.9	22.2
2006	17.2	26.3
Poland		
2003	14.9	9.2
2004	15.3	9.0
2005	16.5	9.6
2006	18.8	9.9
Slovakia		
2003	64.4	48.0
2004	60.8	53.0
2005	59.2	58.9
2006	62.4	59.8

4. The significance of the enlarged EU in the Visegrád countries' agricultural trade

Based on calculations on Eurostat data, the following conclusions might be drawn.

- The share of the EU 25 has increased in case of all countries concerned, both on the export and the import sides.
- The EU share has increased more significantly in case of agricultural imports than in case of agricultural exports.
- With the exception of Poland, the Visegrád countries depend to a higher extent on the EU supply than on the EU market. The ratio is the highest in Hungary where there is a 20-percentage-point difference between the export and import shares. In Poland a more symmetrical agro-trade dependence can be revealed.
- As far as the significance of the EU market is concerned, there are considerable differences among the Visegrád countries: while in the cases of the Czech Republic and Slovakia nearly 90 percent of agricultural exports is directed to the enlarged EU (out of which a significant part goes to each other's market), three quarters of the Polish and two thirds of the Hungarian agricultural exports find a market in the EU 25. That is, in case of Hungary, despite accession the agricultural sector is still "underrepresented", consequently markets of third countries have a relatively high significance.
- As far as the import shares are concerned, with the exception of Poland, nearly 90 percent of all the Visegrád countries' agricultural imports arrive from the enlarged EU. In case of Poland the share of third countries is relatively high, around 25 percent.

Similarly, some future-oriented conclusions might also be drawn. (See Table 15.) Though even in these days the EU 25 play a determining role in the Visegrád countries' agricultural exports, the share of the EU countries will increase further, especially in the cases of Hungary and Poland. This expected increase is due to the fact that in 2007 the EU was enlarged by Bulgaria and Romania which used to be significant agricultural markets for Hungary and Poland. Dismantling trade barriers might promote agricultural trade. However, further market expansion in the EU is feasible only under the conditions of increasing production and improving competitiveness. In addition, agricultural markets of third countries should not be neglected. All the more as agricultural markets in the EU are saturated, and both the old and the new

member states are not interested in increasing their agricultural imports from the member states. The expected conclusion of the WTO Doha Round negotiations and further liberalisation of agricultural trade will not have any impact on intra-EU agricultural trade as it has already been fully liberalised for the 27 incumbents. However, market access for third countries might improve. As far as agricultural imports are concerned, a minor change might only occur in case of Poland, where the share of the EU countries is the lowest.

Table 15

*The share of the enlarged EU in the Visegrád countries' agricultural trade
(percent)*

Year	Exports			Imports		
	EU 15	EU 10	EU 25	EU 15	EU 10	EU 25
Czech Republic						
2003	38.0	42.5	80.5	52.4	22.9	75.3
2004	41.9	42.6	84.5	60.9	24.1	85.0
2005	41.7	43.1	84.8	62.4	26.6	89.0
2006	43.2	43.7	86.9	62.5	29.5	92.0
Hungary						
2003	48.8	13.3	62.1	53.0	15.1	68.1
2004	52.2	15.2	67.4	60.7	20.7	81.4
2005	51.9	15.9	67.8	64.8	22.2	87.0
2006	49.8	17.2	67.0	62.3	26.3	88.6
Poland						
2003	51.3	14.9	66.2	52.8	9.2	62.0
2004	57.1	15.3	72.4	63.1	9.0	72.1
2005	58.0	16.5	74.5	67.4	9.6	77.0
2006	58.1	18.8	76.9	66.0	9.9	75.9
Slovakia						
2003	19.8	64.4	84.2	34.8	48.0	82.8
2004	27.5	60.8	88.3	36.0	53.0	89.0
2005	29.8	59.2	89.0	33.6	58.9	92.5
2006	26.2	62.4	88.6	32.4	59.8	92.2

*

On evaluating the effects of EU accession on agricultural foreign trade, we can make the following summarising statements.

1. The degree of utilising the advantages emanating from opportunities to have free, unlimited access to a 450-million market differs in the Visegrád countries.

2. Just like in case of the Association Agreement, so also in that of accession, the mutual opening of the markets worked to the disadvantage of the less competitive partners, hence the agricultural imports of the new member states increased more than their exports, and so their agricultural foreign-trade balance deteriorated.

3. The weaker export performance and the growing imports of the countries (like Hungary) lagging behind the others can be traced back to the following factors: quantitative and qualitative problems in domestic production; low productivity emanating from capital shortage and outdated technology; uncompetitive prices deriving from relatively high production costs; inadequate infrastructure and logistics; insufficient preparedness of the producers and of the institutional background (*Somai [2004]*); and deficient marketing activity.

4. Just like in the case of the Association Agreement, so also in that of accession, the old member states were able to utilise much better the opportunities provided by the unlimited market access. As a result – and also due to some other factors like the privatisation of the food industry in the new member states by foreign capital, monopolistic or oligopolistic market situations, or the procurement policy of the foreign supermarket chains (*Kürti et al. [2007]*), the EU 15 countries were able to increase their exports to the new member states better than their imports grew from these countries.

5. In several new member countries (Hungary among them) the commodity structure did not become modernised, the main items of export growth were unprocessed agricultural products (e.g. cereals), while the ratio of high value-added goods (like processed meat and milk products) decreased.

6. It is difficult to reveal by what criteria certain (e.g. Polish or Slovakian meat and meat product) export-growth trends were realised, especially in the case of agricultural trade among the new member states; we do not know what compromises (in the field of food safety) were made in the course of price competition.

7. Naturally some old trends still survive three years after accession. Such are, for example, the dominance of the German market in the new members' exports and, to a lesser extent, also in their imports; or the dominance of the Visegrád countries in the agricultural trade of the new members among themselves; or the Slovakian-Czech dominance in these two countries' agricultural trade. New actors can only slowly or hardly come onto the stage.

8. The EU succeeded in asserting its sometimes covert, sometimes overt tactics:

– to boost the new member states' agricultural trade so as not to endanger the old members' already saturated agricultural markets, which were increasingly threatened by third countries, and simultaneously

– to help the old members in finding an enlarging market in the new member states for their products, which had been accumulating in spite of the reform of the Common Agricultural Policy.

9. As regards the perspectives (*European Commission* [2006]), following the 2007 enlargement the role of the EU in the agricultural trade of the Visegrád countries will further increase, and this might even mean a 100 percent dependence in case of some countries and in that of their imports. In the field of exports, at the same time, the Visegrád countries will have to reckon with intensifying competition not only within the EU due to enlargement, but also in the markets outside the EU, especially in certain goods, like poultry products. Furthermore, these countries will also have to struggle with the growing crowding-out effects of imports in their domestic markets.

10. In addition, neither the further expected reforms of the Common Agricultural Policy, nor the conclusion of the WTO Doha Round will improve the market position of the new member states. The reforms of the various sectors (e.g. sugar, vegetables and fruit, wine) are clearly aimed at decreasing production and preventing market problems, that is, one cannot expect either production growth or an increase in market share.⁵ And even if, following the conclusion of the Doha Round, market-access possibilities improved, this would not mean any additional market enlargement in the intra-EU market. And this statement relates to as much as 80 percent or even more of the agricultural exports of several countries (*Kiss* [2007b]). What makes things worse, it seems certain that subsidies will not be allowed to be used for boosting exports in case of the remaining, say, 20 percent. There is only one way out of this dual trap, namely, if the world-market prices of agro-products will grow and will stabilise on a high level as a result of the development and sustention of a demand-driven market, since in this case there will be an opportunity to increase production and to sell the products without export subsidies.⁶

11. Although till 2013 the author can expect a rise in agricultural support, if part of this must be spent according to the principle of cross compliance on investments which are necessary but do not foster either efficiency or competitiveness, then the growing agricultural support will rather affect land prices and land rents, i.e. there will be a growth in production costs, but not in competitiveness.

12. The still existing price competitiveness of the new member states can be expected to diminish. Firstly, because production costs will grow as a result of an increase in input prices, primarily in labour costs. Secondly, production costs will also rise due to growing land prices and land rents, which will be effected partly by the opening up of the land market after the transition period, and partly by the incorpora-

⁵ Moreover, they will decrease production in the new member states from 2009 as they will also be obliged to make some of their agricultural territories lie idle.

⁶ On the likely development of world agriculture see *Kiss* [2007b].

tion of area payments into land prices.⁷ And simultaneously with the rising input prices, a decrease in administrative prices can also be expected as a consequence of the reform of the Common Agricultural Policy.

References

- Enlargement, two years after: an economic evaluation* [2006]. European Economy, Occasional Papers No. 24, European Commission, Directorate-General for Economic and Financial Affairs. Brussels.
- European Commission [2006]: *Prospects for agricultural markets and income in the European Union, 2006–2013*. Directorate-General for Agriculture. Brussels.
- FERTŐ I. [2006]: *Az agrárkereskedelem átalakulása Magyarországon és a kelet-közép-európai országokban*. MTA Közgazdaságtudományi Intézet. Budapest.
- KISS J. [2005a]: Ki mint vet ..., avagy az új EU-tagok mezőgazdasága. *Falu*. Vol. 20. No. 2. p. 73–89.
- KISS J. [2005b]: *Az új tagállamok mezőgazdasága az Európai Unióban*, Integrációs és Fejlesztéspolitikai Munkacsoport, Agrár- és Vidékfejlesztési Témacsoport. Budapest.
- KISS J. [2007a]: Remények és realitások. EU-csatlakozásunk agrár-külkereskedelmi hatása, In: *Agrárgazdaság, Vidékfejlesztés, Agrárinformatika Nemzetközi Konferencia*. Debreceni Egyetem. Debrecen.
- KISS J. [2007b]: *A világ mezőgazdasága a XXI. század első évtizedeiben*. Manuscript. MTA Világgazdasági Kutatóintézet. Budapest. Working paper.
- KSH [2006]: *Mérlegen. Kelet-Közép-Európa 15 éve*. Budapest.
- KÜRTI A ET AL [2007]: *A magyar élelmiszer-gazdasági import dinamikus növekedésének okai*, Manuscript. Agrárgazdasági Kutató Intézet. Working paper.
- SOMAI M. [2004]: *A magyar mezőgazdaság átalakulása II. Az EU-csatlakozás hatása, külkereskedelmi lehetőségek*. Műhelytanulmányok No. 65. MTA Világgazdasági Kutatóintézet. Budapest.
- VIDA K. (ed.) [2005]: *Monitoring jelentés 2005. A nyolc új közép- és kelet-európai tagország első uniós évről*, 2004. május 1. – 2005. május 1. MTA Világgazdasági Kutató Intézet. Budapest.
- VIDA K. (ed.) [2006]: *Monitoring jelentés 2006. A nyolc közép- és kelet-európai tagország második uniós évről*. 2005. május 1. – 2006. május 1. MTA Világgazdasági Kutató Intézet. Budapest.
- ZDENEK, L. – MLÁDEK, J. [2006]: *Central and Eastern European agriculture in integrating Europe*. WIIW Research Reports No. 329. Vienna Institute for International Economic Studies. Vienna.

⁷ In this respect, Poland will be in a more advantageous position because, on the one hand, it succeeded to “negotiate” a 12-year transition period and, on the other, the ratio of those farming their own land is much bigger here than in the other new member countries.

Hungarian economic relations with the Arab world

Tamás Szigetvári

PhD, senior research fellow of the Institute for World Economics of the Hungarian Academy of Sciences and senior lecturer of the Budapest Business School

E-mail: tsziget@vki.hu

The study gives an overview of Hungary's trade relations with the Arab countries. It presents the characteristics of trading in the region and the relationship between the European Union and the Arab countries, which became determinant for Hungary after gaining full membership in the EU. The second part of the study analyses the features of Hungarian trade with the region, by giving an overall and a country-by-country profile. This area is one of the most important surplus-producing relation for Hungary. The opportunity to develop Hungarian-Arab economic and trade relations still exists, however, it needs more intense attention in Hungary towards the Arab world.

KEYWORDS: Trade and service statistics.
International analyses, comparisons.

The Arab world became an important trading partner of Hungary in the 1970s. By the late 1980s, and especially after the political transition in Hungary, trade relations were falling back substantially. The Arab region, however, remained a surplus-generating relation for Hungarian foreign trade, and during the last five years (2002–2007), with the revival of Arab trade relations, the amount of this surplus increased to USD 1.4 billion.

This study presents an overview of trade relations with the Arab countries, by 1. presenting the features of trade in the region first, then by 2. characterising the special relations between the European Union and the Arab countries, which became determinant for Hungary after gaining full membership in the Union with the emerging new possibilities and, at last, by 3. giving a country-by-country profile of relations.

1. Arab countries in the world economy

The Arab countries are developing economies and derive their revenues mainly from exporting oil and gas or from the sale of other raw materials and minerals. In the early 1970s a “Golden Age” had begun for the region. In 1973 the great Western oil conglomerates suddenly faced the Organization of Petroleum Exporting Countries (OPEC), a unified bloc of producers. In consequence of the war against Israel, the Arab world imposed an oil embargo against the Western countries, and all OPEC members agreed to use their leverage over the world-price-setting mechanism of oil in order to raise world oil prices. The market price of oil rose substantially.

The earnings of oil nations were enormous. The extra income spurred them into a buying spree never seen before in these countries. Especially weapons were purchased, but they undertook major economic development programmes as well. Even countries without huge oil revenues, like Egypt, Lebanon or Jordan, benefited indirectly from the oil-money. They sent manpower to oil producers (workers in oil industry, teachers, doctors, etc.), and hosted Arab capital as well.

The Golden Age has not lasted forever. Higher prices resulted in increased exploration and production outside of OPEC. The organization had to face the lower demand and higher supply on the world market. From 1982 to 1985, OPEC strove after setting production quotas appropriately low to stabilize prices. These efforts met with repeated failure as various members of OPEC produced beyond their quotas. During most of this period Saudi Arabia repeatedly cut its production in an attempt to stem

the free fall in prices. In 1986, being tired of this role, the Saudis increased production from 2 million to 5 million barrels per day. Crude-oil prices fell below USD 10 per barrel by mid-1986. Despite the decline, Saudi revenue remained about the same with higher volumes compensating for lower prices. For other oil producers, however, the drop in prices represented a serious problem; with the vanishing abundance, expenses had to be pared down.

The price of crude oil spiked in 1990 with the lower production and the uncertainty associated with the Iraqi invasion of Kuwait and the ensuing Gulf War, but after the liberation of Kuwait crude-oil prices returned to the period of steady decline. The economic growth in the region, particularly in the oil-exporting countries suffered during the 1990s when real oil prices plummeted to pre-1973 levels. Recent years, however, have seen significant economic growth in the Arab world, due largely to a new increase in oil and gas prices, which tripled between 2001 and 2006, and also because of the efforts by some states to diversify their economic bases.

The major export products of the Arab world are still crude petroleum and petroleum products. There are some other export items, but these are mostly primary products, too. Qatar exports gas, Jordan fertilizers, Syria cotton and Morocco vegetables. Their dependence on a restricted number of export products makes them more vulnerable to price fluctuations. Some countries have gradually shifted to manufactures with greater technological input. Bahrain exports aluminium, the United Arab Emirates (UAE) aluminium and garments, Egypt and Tunisia textiles and garments. Some countries, particularly some in the Gulf, are diversifying their exports by way of re-exports. This has allowed them to move away from primary exports and has reduced the risks of price fluctuations. However, at the same time competition among the Gulf countries for the regional re-export markets has been rising.

Countries that export to a small number of countries are more vulnerable to changes in demand than others, whose export markets are diversified. Overall, MENA (– Middle East and North Africa)¹ countries' export markets are not diverse. Over half the region's exports flow to industrial countries, mainly to Europe. In case of many MENA countries, this reflects historical and political ties. For example, Morocco and Tunisia tend to export to France, Egypt to the United States. Syria until the mid-1980s had exported to Eastern Europe, but by the mid-1990s turned to Italy, France and neighbouring Turkey.

The high concentration of MENA's exports to a few markets is mainly due to its abundance of oil, most of which being directed to the industrialized countries. When oil is excluded, Algeria's and Egypt's exports still flow mainly to developed countries. However, the big oil-producing countries send most of their non-oil exports to

¹ I.e. the Arab countries plus Israel and Iran.

other countries within the region, especially those of the Gulf, which generally export to one another. Syria's non-oil exports are directed to Lebanon and Saudi Arabia, while Yemen's are aimed at Saudi Arabia and Bahrain.

1.1. The Maghreb

The Maghreb region consists of four North African states, Morocco, Algeria, Tunisia and Libya.² Maghreb trade structures share similarities, particularly those of Morocco and Tunisia. The two countries without substantial oil extraction have similar factor intensities of exports (mostly labour-intensive), while Algeria's and Libya's exports are mostly natural-resource intensive. Algeria and Libya are net oil-exporters, the former with a relatively big population and economy. In Algeria, import substitution was focused on heavy industry, especially steel and petrochemicals, while in Morocco and Tunisia the emphasis was set on light industry, producing essentially consumer goods, and on the food and agriculture sector.

Despite recent export performance, Maghreb countries remain poorly integrated into the global economy. Over the last few years, these countries lowered both trade and non-trade barriers and increased their trade integration. In spite of these efforts the share of non-oil exports in their GDP remained less significant than in any other region of the Arab world. The contribution of non-oil exports to GDP fluctuates around 15 percent.

The agriculture and food, and the consumer-goods sectors continue to be protected; primary exports (energy, minerals and agricultural products) will remain essential tools of maintaining foreign-trade balance; light manufactured goods that enjoy comparative export advantages (basically garments and to a lesser extent electric components) face keen competition from Asian countries and suffer a sluggish growth in international trade.

In Algeria, the hydrocarbons sector is the backbone of the economy, accounting for roughly 60 percent of budget revenues, 30 percent of GDP, and over 95 percent of export earnings. Algeria has the eighth largest reserves of natural gas in the world and is the fourth largest gas exporter.

The Libyan economy depends primarily upon revenues from the oil sector, which constitute practically all export earnings and about a quarter of GDP. These oil revenues and its small population give Libya one of the highest per capita GDP in Africa. The non-oil manufacturing and construction sectors, which account for about 20 percent of GDP, have expanded from processing mostly agricultural products to include the production of petrochemicals, iron, steel and aluminium. As climatic conditions

² Mauritania used to be considered a part of the region.

and poor soils severely limit agricultural output, Libya imports about 75 percent of its food supplies.

The Maghreb's foreign trade is highly concentrated on the EU which, on average, accounted for 64 percent of the region's imports and more than 70 percent of its exports in 2005. Morocco and Tunisia show structural trade deficits, while Libya and Algeria post up surpluses (the latter in years when oil prices are high). The Moroccan and Tunisian trade deficits pass on to the current-account deficits whenever there are contractions of income from tourism and remittances, and, in some years, foreign investment. Foreign-trade imbalances have improved, despite the high trade deficit outside the energy sector. Tunisia consistently posts up current-account deficits, while Morocco has modest surpluses. Algeria and Libya have high current-account surpluses due to the high price of crude oil.

1.2. The Mashreq

In the Mashreq region Syria and Iraq have substantial reserves of oil. Egypt also produces oil, but its importance in the country's exports is less significant. Lebanon and Jordan are net oil importers. In Egypt and Jordan the liberalisation of economy and trade was taking place over the last decade. In Syria, the reform process unfolds much more slowly, partly because oil revenues made the postponement of major structural reforms possible. Strict currency policy was eased by the government and the activity of private banks was allowed. Further liberalisation in the economy, however, may induce tensions in society and interfere with the interests of the strong state sector.

Syrian exports rose to USD 10.1 billion in 2006, with an annual increase of 19 percent. Crude oil continues to represent the single most important export item; exports of crude oil and other minerals reached 40 percent of total. Textile and footwear, which comprises raw cotton, yarns and garments ranks second with a total of 19 percent and is followed by live animals and vegetable products, chemicals and food. Meanwhile, imports of refined oil ranked first among import goods with a 30 percent stake of total. Italy was Syria's main export market and bought alone 20 percent of all the country's exports. Italy far surpasses Syria's second most important partner, France, which is followed by Saudi Arabia and Iraq.

Iraq's economy is also dominated by the oil sector, which has traditionally provided about 95 percent of foreign-exchange earnings. Rising oil prices during the 1970s created increases in export revenues. Then the economy was severely damaged by financial problems caused by the massive expenditures during the eight-year war with Iran, which also diminished oil-export facilities. The drop in world oil prices and Iraq's exporting problems due to international sanctions essentially put an end to the glut in the

country. The UN imposed trade restrictions on non-oil exports as well; Iraq was traditionally the world's largest exporter of dates. After the fall of *Saddam Hussein*, the new Iraqi government tries to rebuild the economy and oil exporting capacities especially, but persistent political chaos in the country poses serious difficulties.

Egypt's economy depends mainly on agriculture, media and entertainment, and tourism, while petroleum exports have a minor role; there are more than three million Egyptians working abroad, mainly in Saudi Arabia, the Persian Gulf and Europe, whose remittances are also the most important item on the balance of payments. Economic conditions have started to improve considerably after a period of stagnation as the result of the adoption of more liberal economic policies by the government, the increasing revenues from tourism and a booming stock market. The devaluation of the local currency improved the competitiveness of manufacturing industries, but to maintain the pace of growth even broader reforms would have to be implemented.

Jordan is a small country with limited natural resources. Since 2000, exports of light manufactured products have been driving economic growth, principally textiles and garments manufactured in industrial zones that enter the United States tariff and quota free under the bilateral US–Jordan Free Trade Agreement. Similar growth in exports to the European Union under the bilateral Association Agreement and to countries in the region holds a considerable promise to divert Jordan's economy away from its traditional reliance on exports of phosphates and potash, overseas remittances and foreign aid. The government boosts the information-technology and tourism sectors as further promising growth sectors. The low-tax and low-regulation Aqaba Special Economic Zone is considered the model of a government-provided framework for private-sector-led economic growth. Tourism is a very important sector of the Jordanian economy, contributing 10-12 percent to the country's GNP in 2006. Major imports of the country are crude oil (from Iraq), machinery, transport equipment, food, live animals and manufactured goods.

Lebanon was traditionally the centre of different service activities (finance, editing, etc.) in the region. As a consequence of the long civil war Lebanon lost this position. The country's economy has always been more open than the economies of other Arab countries. The costs of reconstruction after the civil war were enormous, and the country permanently balanced on the verge of bankruptcy. Then after several years of consolidation the Israeli attack in 2006 caused devastation in the infrastructures again, set back tourism, and spoilt nearly all achievements in the economy.

1.3. The Gulf

The revenues gained from the exportation of crude oil over the last 30 years have made the rapid modernisation of GCC (–Cooperation Council for the Arab States of

the Gulf)³ economies and infrastructures possible. The GCC holds 45 percent of the world's oil reserves and supplies 20 percent of global crude production. Apart from Bahrain and Oman, all GCC states are members of OPEC.

Until 1999 a period of oil-price consolidation was witnessed by the Gulf states forcing them to search for alternative sources of revenue. It created a need to diversify their economies, including the privatisation of public enterprises. Since 2000 a second oil boom has been generating budget surpluses at the value of tens of billions and creating a financial base for diversification.

The GCC countries share many economic characteristics. Oil contributes about one third to total GDP and three fourths to annual government revenues and exports. There are, however, important differences among the GCC countries. Per capita income ranges from less than USD 8000 in Oman to USD 28,400 in Qatar

The structures of GCC economies and the composition of their exports are also changing. The weight of the manufacturing sector has been growing very rapidly in Saudi Arabia, as has re-export and related activities in the United Arab Emirates, while the banking and insurance sector is by far the single most important sector in Bahrain. In Qatar natural gas is well on the road to bypassing oil as the key sector of the economy, and in Oman the growth strategy centred on developing natural-gas resources and tourism has just begun to bear fruit. To strengthen their cooperation, in 2003 the Gulf countries agreed a free-trade pact and plan to establish a common market in 2007. By 2010 the GCC even expects to have a common currency.

2. The European Union and the Arab countries

Hungary, by joining the European Union, adopted its common trade policy. Consequently, Hungary's economic relations with the Arab world cannot be assessed without the introduction of EU–Arab relations. The Mediterranean has always received much attention from Europe (and the European Community – EC) due to its geographic proximity and former colonial ties. However, probably as a result of clashing interests, there was no such conception governing the relations with the Mediterranean as, for instance, the Lomé Convention, which provides guidance to Africa for Europe. Toward the Mediterranean, the Community showed a reactive, rather than a proactive policy, i.e. it mostly followed the events and did not shape them. Although, several agreements have been concluded with the countries of the

³ The GCC is a regional organisation created in May 1981 by Bahrain, Kuwait, Oman, Qatar, Saudi Arabia and the United Arab Emirates.

region, they all have only been bilateral agreements owing to the lack of multicultural institutionalism.

After the 1973 crisis the chances to achieve a general agreement decreased. The EC protected its agriculture with one-sided actions, if needed, and the development of the light industry was hampered by the restrictions imposed on textile exports. The partnership agreements provided more advantages than a free-trade agreement in theory, although they offered few consultation rights and did not mention the prospect of full membership at all. As a result of protests from the US, the Mediterranean countries were unable to provide the EC a preferential treatment themselves.

By the 1990s the stance of the EC on the Mediterranean changed. With the disappearance of the confrontation of the two (capitalist and socialist) systems, the dangers threatening the Union seemed to have moved from the eastern part of Europe to the South, therefore the member states of the Community introduced a new Mediterranean policy. Maastricht and the peace settlement in the Middle East made it possible to give new dimensions to the relations.

The approach speeded up within the frames of the Euro-Mediterranean Partnership (EMP) from 1995. The Euro-Mediterranean Partnership agreements, upon which the free-trade zone could be formed, replaced the former agreements made with Arab countries. The new, global Euro-Mediterranean Partnership consists of three separate but complementary “pillars”:

1. the pillar of politics and security, aiming to define the frames of a region of peace and political stability;
2. the economic and financial pillar, providing the establishment of a flourishing area; and
3. the social, cultural and humanitarian pillar which fosters the development of human resources and the understanding between the various cultures while also helps build relations between the non-governmental organizations of both sides.

The realisation of the process started with concluding bilateral agreements between the EU and certain countries in the region. Most of the Mediterranean countries have already signed Euro-Med contracts (Tunisia, Morocco, Israel, the Palestine Authority, Egypt, Jordan, Algeria and Lebanon). With Syria, the negotiations have been closed, but the agreement has not been signed yet.

Although the contracts already signed are not identical in all details, their structure and the main points are. Besides the free flow of goods, they include specifications on the flow of capital, the rules of economic competition and the protection of investments. In addition to financial and economic cooperation, the improvement of political dialogue and social and cultural cooperation are also included in the agree-

ments. In 2004, the EMP became a part of the European Neighbourhood Policy (ENP), which means the EMP expanded by the Eastern neighbours (i.e. the former Soviet Republics). In the framework of ENP, the EU donates financial support to the participating countries in the implementation of their reforms.

From the Arab world, three Maghreb countries (Morocco, Algeria and Tunisia) have the closest relations with Europe, mainly due to former French colonial rule. Morocco even asked for accession to the EC in 1987, but the European Council refused the request on the grounds of Paragraph 237 of the Rome treaty, as Morocco is not a European country. Morocco and Tunisia were the first to sign the Euro-Med agreements and leave no stone unturned to take advantage of the opportunities that the agreements offer. With Algeria, there were several problem areas, like the tense, almost war-like political climate and the not prepared state of the economy, i.e. the one-sided structure of exports and the isolated market from the outer world. However, Algeria's natural resources are indispensable for the EU. Similar was the case with Libya, but in the mid 1990s the country opted out of the partnership. Later it became an observant, and, in these days, both sides try to warm up relations.

The five countries in the Eastern part of the Mediterranean and the Palestine Authority are also subjects of the EU's new Mediterranean policy. The co-operation between the Mashreq and the EU countries is rather dependant on the peace talks. Israel has an edge over the others in the region as concerns its economy and is an equal partner of the EU. At the beginning of the partnership process, there was some hope for economic cooperation between Israel and the neighbouring Arab countries. Unfortunately, expectations have not come true, and the tension between the Israelis and the Arabs persists. In the long run Iraq could be an important partner as well with its traditionally strong ties to the European countries, but under the current circumstances the question cannot be put on the agenda.

The European Union maintains strong economic links with the Gulf Cooperation Council. The parties signed an economic cooperation agreement in 1988 which laid the foundations for a future expansion into a bilateral free-trade agreement. The negotiations of this contract have been prolonged for 16 years due to legal and human-rights-related issues. Nevertheless, one of the EU's objectives in 2007 is to finally sign the agreement with the GCC.⁴

The GCC is currently the EU's fifth largest export market and the EU is the GCC's first trading partner. GCC countries benefit from the preferential access to the EU market under the Union's Generalised System of Preferences (GSP) and exported 36.4 billion euros worth of crude oil, petrochemicals and aluminium products to the EU in 2006. The EU valued its exports to GCC countries in 2006 at 54 billion

⁴ Mandelson calls for EU-GCC FTA deal to boost Gulf Economies, http://trade.ec.europa.eu/doclib/docs/2007/february/tradoc_133369.pdf

euros and that makes the Gulf the fifth most important market of the Union.⁵ Major exports include power stations, petrochemical plants, aircrafts and cars. Currently, GCC countries receive one third of their imports from the EU.

3. Hungary's foreign trade

As a member of the Soviet block, Hungary was to maintain economic relations primarily with “friendly” countries within the “socialist camp” and among developing countries. Trade relations were driven by ideological and not by economic reasons. Hungarian foreign trade contacts with the Arab world soared in the 1970s. The growing purchasing power of oil-exporting Arab countries, the launch of ambitious developing programmes created an enormous demand for goods, know-how and services. The annual average growth rate of Hungarian exports reached 16 percent in these years, the bulk of which flowed to Algeria, Syria, Iraq and Libya, the major destinations. The dynamic pace of trade relations slowed down in the early 1980s, and then from the mid-1980s the fall of oil prices caused a sharp decline in the import and investment activities of the Arab countries. In the same period, the competitiveness of Hungarian goods on international markets declined substantially.

The transition period of Hungary in the 1990s was marked by a radical change of economic partners, and the orientation of Hungary's exports shifted from ex-socialist to developed countries. In case of developing countries, the change was not so evident as in the first years of the transformation their share in Hungary's exports even increased. After 1993, however, Hungarian deliveries to developing countries began to decrease in absolute terms as well, while imports from these countries continued increasing dynamically. As a direct consequence of these tendencies, the traditionally active Hungarian trade balance toward developing countries gradually turned negative, and since 1998 more than half of the deficit have stemmed from the trade with developing countries. The importance of several traditional relations, like those with India and the Arab countries have faded and the newly industrialised Southeast Asian countries and China replaced them. The main reasons behind the fallback of economic relations with the Arab countries are the following.

– In the 1970s and 1980s the trade relations of Hungary were featured by active state involvement, often based on intra-state agree-

⁵ European Commission, External Trade, GCC trade statistics, http://trade.ec.europa.eu/doclib/docs/2006/september/tradoc_113482.pdf

ments. The almost complete withdrawal of the state from this field has produced serious consequences.

- The liberalisation of foreign trade and the fundamental changes in the structure of economy afflicted a great number of small- and medium-sized enterprises with poor capitalisation (lack of expertise and language knowledge, high transport costs, etc.)

- The lack of instruments to promote trade in developing regions (e.g. missing state guaranty or export credits for enterprises willing to export).

- The output of once major products Hungary exported to the Arab region (steel and aluminium goods, chemicals, agricultural products) decreased significantly.

- The first democratically-elected governments in the early 1990s planned to give priority to alternative (i.e. non-Soviet) crude-oil sources which should have been strengthening the relations with oil-exporting Arab countries. The closedown of the Adrian oil pipeline by the collapse of Yugoslavia made the strategy of diversification almost impossible.

- The establishment of diplomatic contacts with Israel and the growing economic relations thereafter made relations with some Arab countries tense.

3.1. Current trends in relations

Between 1999 and 2006 Hungarian exports increased nearly threefold, from USD 25 billion to USD 74 billion.⁶ Among developing countries (4.8fold increase), the fastest growing regions were Sub-Saharan Africa (17fold increase) and the Arab countries (9fold increase), while in Asia (4.6fold increase overall) the growth of exports to China was one of the fastest (10.7fold increase). (See Table 1.)

Table 1

Hungarian exports by regions, 1999–2006
(USD million)

Region	1999	2000	2001	2002	2003	2004	2005	2006
Total exports	25 012	28 092	30 498	34 337	43 008	55 469	62 272	74 055
Developed countries	20 969	23 463	25 121	28 148	34 531	42 945	45 293	50 621

(Continued on the next page.)

⁶ If otherwise not indicated, all data are from Hungarian Central Statistical Office's database. www.ksh.hu

(Continuation.)

Region	1999	2000	2001	2002	2003	2004	2005	2006
Central and Eastern Europe	3 103	3 627	4 280	4 794	6 740	10 015	13 550	18 911
Developing countries	941	1001	1 097	1 395	1 736	2 508	3 429	4 523
Asia*	587	625	673	805	615	1 030	1 384	2 109
China	71	41	113	155	178	391	401	762
Arab world	167	168	203	363	792	1 033	1 333	1 447
Africa**	35	39	41	100	170	282	406	598
America***	151	159	167	187	171	263	307	346

* Asia without Israel, Japan and the Arab countries.

** Africa without Arab countries, i.e. Sub-Saharan Africa.

*** America without Canada and the USA.

Source: Here and in the following tables KSH (Hungarian Central Statistical Office – HCSO).
www.ksh.hu.

When analysing development in trade relations, imports have to be considered as well. With China, not only exports increased dynamically, but imports as well (6 times), which resulted in a trade deficit, growing from USD 539 million to USD 3.1 billion in the same period. In case of Sub-Saharan Africa and the Arab countries, however, the role of imports was still negligible, so the growth of exports made the trade surplus increase. (See Table 2.)

Table 2

Hungarian trade balance, 1999–2006
(USD million)

Region	1999	2000	2001	2002	2003	2004	2005	2006
Total	-2 996	-3 987	-3 184	-3 275	-4 667	-4 780	-3 648	-2 924
Developed	+65	+1 002	+1 755	+3 017	-875	+761	+2 102	+1 684
Central and Eastern Europe	-904	-1 845	-1 319	-1 459	-1 766	-972	-65	+915
Developing	-2 156	-3 144	-3 620	-4 832	-2 026	-4 569	-5 686	-5 523
Asia*	-1 940	-2 970	-3 464	-4 837	-2 883	-5 760	-7 378	-7 881
China	-539	-898	-1 321	-1 930	-858	-2 483	-3 187	-3 097
Arab World	+136	+124	+162	+315	+778	+1 011	+1 310	+1 397
Africa**	-65	-49	-95	+2	+134	+248	+364	+564
America***	-297	-265	-242	-258	-54	+22	+11	+142

* Asia without Israel, Japan and the Arab countries.

** Africa without Arab countries, i.e. Sub-Saharan Africa.

*** America without Canada and the USA.

Taking a glance on the trade figures with Arab countries (Table 3), one can immediately realize that the main factor behind the explosive growth in exports was product group 76 (SITC), i.e. telecommunication equipments. In case of Hungary it means mobile phones. The multinational company Nokia has three European plants, located in Finland, Germany and Hungary (Komárom). Beside Europe, these factories supply the Middle East and Africa as well. In Komárom 300 million phones were produced in 7 years (until the end of 2006) (www.nokia.hu), and mobile phones have been among the most important export products of Hungary recently. Total exports of Hungary in SITC 76 increased from USD 1984 million (1999) to USD 12 776 million (2006).

Hungarian exports to the Arab world were growing at a rapid pace in the last six years with an annual average of 44 percent. The exports of Nokia from Hungary to the region totalled up to USD 1030 million in 2006. Without the mobiles, “traditional” exports were growing from USD 167 in 2000 to USD 416 million in 2006, i.e. with an annual average growth rate of 17 percent. Among the “traditional” export items other machineries reached USD 210 million in 2006, agricultural products USD 101 million, and manufactured products (mainly chemicals) USD 100 million. In case of agricultural products, the results in 2006 were by far the best (in the previous years they were between USD 30 and USD 60 million). By manufactured goods, the year 2005 was the peak with USD 195 million, and then 2006 meant a fallback. Non-telecom machinery grew from around USD 50 million to USD 210 million.

Table 3

Trade relations between Hungary and the Arab world, 1999–2006
(USD million)

Denomination	1999	2000	2001	2002	2003	2004	2005	2006
Exports	167	168	203	363	792	1 033	1 333	1 447
Food*	50	38	37	33	31	56	61	101
Manufactured**	25	56	66	77	99	109	195	100
Machinery***	54	68	96	253	670	854	1 080	1 241
Mobile phone****	1,2	1,4	32	183	568	717	915	1 030
Imports	31	44	41	48	14	22	23	50
Trade balance	+136	+124	+162	+315	+778	+1 011	+1 310	+1 397

* SITC 0, 1.

** SITC 5, 6, 8, 9.

*** SITC 7.

**** SITC 76.

While analysing the trade statistics with Arab countries (and with many other developing countries as well), one can see that Hungarian imports declined signifi-

cantly in 2003. It should be known that there are methodological reasons behind this phenomenon; until 2002 the import data were presented by the country of origin; since 2003 it is presented by the country of consignment. In consequence, many goods (especially agricultural products and raw materials) coming from developing countries to Hungary are being indicated as Dutch (Rotterdam) or German (Hamburg).

4. Country-by-country analysis

Currently two Gulf countries (the UAE and Saudi Arabia) are the major export partners of Hungary in the region, due partly to their re-export activity, partly to their increasing demand in the period of high oil prices. They are followed by three Mashreq countries (Egypt, Jordan, and Iraq) and three Maghreb countries (Algeria, Morocco and Tunisia). (See Table 4.)

Table 4

Arab countries ranked by the value of exports, 2006
(USD million)

Country	1999	2000	2001	2002	2003	2004	2005	2006
1. UAE	13.0	10.0	32.8	131.8	462.2	590.0	557.7	452.1
2. Saudi Arabia	23.0	28.2	39.7	83.8	99.5	109.1	190.1	234.1
3. Egypt	28.7	28.7	26.9	23.6	40.6	61.5	112.6	186.9
4. Jordan	4.8	4.3	6.3	11.6	18.7	47.2	55.8	87.0
5. Iraq	1.1	1.9	3.5	2.6	6.5	14.7	114.5	74.9
6. Algeria	16.2	6.9	11.0	15.5	24.7	21.7	49.0	71.9
7. Morocco	15.8	6.6	9.9	13.5	16.5	16.1	46.0	60.1
8. Tunisia	10.2	14.8	9.1	14.5	25.9	22.9	34.4	54.9
9. Kuwait	11.7	21.4	17.7	9.1	26.1	47.2	30.8	49.1
10. Syria	14.7	17.3	19.2	20.1	24.1	21.3	58.4	47.1
11. Libya	5.8	4.7	4.9	3.0	5.1	3.0	19.3	38.1
12. Bahrain	0.8	0.6	1.2	3.0	6.6	11.3	14.4	31.0
13. Lebanon	15.0	17.5	15.5	17.7	19.2	46.9	33.7	20.6
14. Yemen	4.9	2.8	2.3	3.7	6.8	4.6	2.7	16.0
15. Qatar	0.7	0.9	1.0	5.1	2.8	9.0	6.1	15.8
16. Oman	0.7	1.3	1.8	4.5	6.8	6.0	7.6	6.9

The *United Arab Emirates* has been Hungary's most important partner in the Arab world for years with an export volume of over USD 450 million. Hungarian exports increased explosively between 2000 and 2004, almost exclusively in consequence of selling a vast amount of mobile phones, and reached a peak in 2004 with USD 590 million. The Arab Emirates re-exported the mobile phones to other countries in the region. In the last two years, however, with the direct exports to other countries, the trade with the UAE decreased slightly. Beside mobile phones (85 percent), the export of chemicals, lamps, vehicle components and some manufactured goods increased as well, from around USD 10 million before 2001 to USD 65 million in 2006. The imports from the UAE to Hungary is far the "bulkiest" among the Arab states with USD 23 million (Egypt is second with USD 8 million), but they witnessed a rapid increase in the last two years. The imports consist of petrochemical and steel products.

Saudi Arabia is the largest and maybe the most lucrative market in the region. It creates fierce competition where business positions can be reserved only by good-quality products. Hungary's exports to Saudi Arabia have been growing dynamically in the last five years, reaching USD 230 million in 2006. The most important products are mobile phones (66 percent in 2006), steelwork, lamps, automobile components, dairy and pharmaceutical products, deep-frozen vegetables, poultry, glassware and cosmetics. Saudi Arabia is the second largest market for Hungarian agricultural products in the region, with USD 19.8 million in 2006. Imports are almost negligible, consisting of some petrochemical products.

Egypt, as the most populous Arab country, is a traditional market for Hungarian products. In the 1990s, Egypt was the main export destination of Hungarian foreign trade in the region, although the volume of exports (around USD 25 million) was much lower than in 2006. The fast increase of exports to Egypt was generated from 2003 on by mobile phones, constituting 72 percent of total exports in 2006. Other major export products are vehicle components, cables, lamps and agricultural machinery. Egypt's demand for food grows rapidly and offers an excellent market for Hungarian products. Although Hungarian products (wheat, dairy, chicken) are well known in the country, Hungarian agricultural export reaches only USD 1.8 million. On the import side, Hungary buys textile products, vegetables and some raw materials from Egypt, worth a modest USD 8 million.

Jordan has never been an important trading partner for Hungary before. In the last seven years, however, the exports to Jordan grew 20fold, due to mobile phones providing 88 percent of all exports in 2006. Other export products are meat, frozen vegetables and machines. From the CEE region, the trade with Hungary increased the most rapidly. Since 2000, more than 120 thousand tourists visited Jordan (*Exim-bank*) which made the current account between the two countries, despite the huge trade deficit, more balanced.

Iraq was one of Hungary's most important trading partners in the developing world in the 1970s and early 1980s. Several Hungarian firms took part as main contractors in investment projects there. The war against Iran, however, raised difficulties in payments, and from the mid-1980s most of the firms wound up business in Iraq. After the fall of the Saddam regime Hungary was ready to take part in the reconstruction of the country. ITD Hungary established the Coordination Office for Iraqi Reconstruction to help Hungarian firms interested in business opportunities in Iraq. Iraq is one of the major recipients of Hungarian Aid Policy as well, via humanitarian aid and training. Exports rocketed in 2005 reaching USD 114.5 million, and then in 2006 they were falling back to USD 75 million, 90 percent of which was made up by mobile phones.

In the 1980s *Algeria* was one of the most important partner in trade, and not only among Arab countries. In 1984 mutual trade reached USD 200 million, of which more than 80 percent was exports.⁷ The main export goods were agricultural products (mainly maize, chicken, eggs) and such other well-known Hungarian export products like buses, lamps, electronic fittings and equipments. The Algerian civil war and the political transition in Hungary adversely affected relations.

Hungarian exports grew from USD 7 million in 2000 to over USD 70 million in 2006, with mobile phones (75%) as the major export products and an increasing amount of agricultural products (16%). Imports are still negligible.

Being a mainly western-allied country in the cold war period, relations were insignificant between *Morocco* and Hungary. The contractual base of trade and economic relations was established only in the late 1980s. Until 2003 Hungary had a more or less balanced trade, around USD 20-30 million, with slightly growing imports and fluctuating exports. The main Hungarian export products were wheat, electronic goods and ceresin, while imports constituted of electronic products, clothes and agricultural products (mainly sardine). Since 2004 Hungarian exports multiplied, and reached USD 60 million in 2006.⁸ More than 90 percent of exports were machinery (66 percent of whole exports were mobile phones in 2006), the rest were manufactured goods (7%), while the share of agricultural products decreased. The EU-financed programmes may offer new opportunities for Hungarian firms to participate in Moroccan projects.

The majority of import products from Morocco are agricultural goods (80%), while machinery and manufactured goods have a minor share. Following 2003, an ever growing number of Hungarian tourists visit Morocco.

⁷ In 1999 Hungarian total trade with the Arab countries were lower than that.

⁸ There is a significant difference between Hungarian official statistics and Moroccan trade statistics. According to Moroccan data, Hungarian exports to Morocco were much higher (USD 63 million instead of USD 46 million in 2005) (*Eximbank*).

The relations with *Tunisia* were sluggish before 1990. Until 2002 Hungary used to have a slight deficit in trade turnover. Today it has a robust surplus, with USD 55 million of exports and USD 4 million of imports. Hungarian exports consist of mobile phones (over 60 percent), wheat, maize, pharmaceuticals, lamps and electronic components. The service sector is of special importance in bilateral relations. Hungary is active in oil-research and water-well drilling, and 40-50 thousand Hungarian tourists visit Tunisia each year (*Eximbank*). The imports from Tunisia declined mainly because of the methodological reasons mentioned previously. The main products imported from Tunisia are wires, printed circuits, transformers, inductors, textile products and dates.

In case of *Kuwait*, mobile phones consist around 60 percent of Hungarian exports, besides lamps, computer fittings, automobile components, and food products like cheese and deep-frozen peas. In 2004, there was a minor drop in exports, the reasons of which were selling of fewer mobiles and steelworks, and the growing competition in the cheese market. The proportion of agricultural products in exports has been decreasing; at present it is just over 2 percent. Hungary is the most important exporter from the Central and Eastern European (CEE) region. The imports from Kuwait are marginal.

Syria was also among the traditional partners of Hungary in the region; however, its share in Hungarian exports was steadily shrinking over the 1990s. The mobile-phone-generated Hungarian export boom reached Syria in 2005, and in recent years exports soared from USD 15-20 million to USD 50-60 million. Nonetheless, it is interesting that mobile phones (35%) have an important but not overwhelming role in the exports to Syria. Manufactured goods still have a significant share with USD 19 million (over 40 percent of total), which are mainly chemicals worth USD 15.4 million, but lamps and port cranes are exported as well. Major projects in electric industry may increase the volume of trade. Hungarian imports are modest, and confine mainly to textile products.

With the liberalisation of the Syrian economy, a set of opportunities will emerge for Hungarian firms, not only in traditional trade, but in development projects as well. The services export is not negligible; Hungarian firms are active as subcontractors of the local oil company (USD 20 million in 2003). Syria gives priority to projects in water management, electricity supply and agricultural development. Hungarian firms intend to participate in such projects, and Syria welcomes Hungarian participation, but a lack of appropriate financial instruments set back implementation. Syria has not been satisfied with Hungarian credit facilities; it expects aid-like financing instead of credits, as it works in case of many other EU countries (*Eximbank*). There is still strong governmental influence in the economy, so good relations with the administration – on Hungarian governmental level as well – are essential.

Libya was once an important partner for Hungary in the region, however, the UN embargo against Libya and the political transition in Hungary set trade relations back. From 2005 a rapid increase can be witnessed in Hungarian exports. Not only owing to mobile phones (they make up 23 percent of exports), but mainly because of a boom in food exports. The USD 26 million worth food exports in 2006 (i.e. 70 percent of total exports) represent the highest value in the region.

Bahrain is a new trading partner for Hungary. Before 2000, Hungarian–Bahraini trade relations were marginal, based mainly on the exports of some Hungarian food products. Regrettably, in the last two years agricultural trade could not be registered. In 2005 Ganz Transelektro Electric Co. Ltd (since 2006 owned in 100 percent by Indian Crompton Greaves, a member of Thapar Group) won a bid of USD 18 million to export electric transformers (*Eximbank*). However, in 2006, mobiles still had an overwhelming share (90%) in Hungarian exports.

In case of *Lebanon*, agricultural products have an important role in bilateral trade relations. The exports of agricultural products were between USD 10 and USD 14 million during the whole period. In 2004, mobile-phone exports rose to USD 26 million, then they were falling back to USD 1.5 million, and food represented 65 percent of Hungarian exports in 2006.

In Hungarian exports to *Yemen* agricultural products (dairy, frozen vegetables, meat) have the highest stake (85%). Yemen is the only Arab country to which Hungary did not export any mobile phones (at least not directly).

Qatar is one of the most dynamically developing countries in the region with great opportunities for trade and services activities. The trade volume between the two countries is still low, with a growing share of mobiles (55%) and some other traditional manufactured export goods as lamps. Food exports are concentrated on cheese and other dairies. Qatar intends to increase its liquid-gas exports to Europe but, despite its diversification efforts, Hungary can hardly receive any.

Hungarian trade with *Oman* is relatively insignificant, although with the selling of mobile phones (65 percent of total in 2006), exports increased in recent years. Beside mobiles, Hungary mainly exports other machineries to Oman.

5. Concluding remarks

The increase of Hungarian exports to the countries of the Arab world was astonishing: in the last six years the annual average growth rate reached 44 percent. The rapid pace was mainly due to the export activity of the mobile giant Nokia, which delivered mobile phones made in Hungary to the countries of the region worth USD

1030 million in 2006. Traditional exports were growing dynamically as well, although at a much lower pace.

The opportunity to develop Hungarian–Arab economic and trade relations further still exists. Doors are definitely wide open for Hungarian firms to go into business in the region, and they are welcome in most of the countries. However, local circumstances and business tradition require more time and energy to do a successful deal. Unlike multinationals with global marketing structures, Hungarian small- and medium-sized enterprises need to rely on the help of professional organisations such as Eximbank, ITD Hungary (Investment and Trade Development Agency), and various industrial and trade chambers. The partnership of the European Union and some Arab countries open up new prospects in the diverse developing projects of the region. The participation in these projects, however, needs more intense attention in Hungary toward the Arab world.

References

- EXIMBANK: *Országinformációk*. www.eximbank.hu
HCSO: *Stadat-tables*. www.ksh.hu
IMF [2006]: *World economic outlook*. December. Washington D. C.
Oil price history and analysis. wtrg.com/prices.htm
MAJOROS P. [1999]: *Magyarország a világkereskedelemben*. Nemzeti Tankönyvkiadó. Budapest.
RIORDAN, E. M. ET AL [1998]: *The world economy and its implications for the Middle East and North Africa, 1995–2000*. In: Shafik, N. (ed.), *Prospects for the Middle Eastern and North African economies, from boom to bust and back?* Macmillan, London – St. Martin, New York.
World Bank. www.worldbank.org

SUSTAINABLE DEVELOPMENT INDICATORS IN HUNGARY 2005

In this publication, sustainable development indicator set elaborated by the Statistical Bureau of the European Union (Eurostat) are presented in time-series, in eight themes. The indicators cover the three pillars of sustainable development: economy, society and environment. The topics presented in this publication: economic development; poverty and social exclusion; ageing society; public health; climate change and energy; production and consumption patterns; management of natural resources; transport.

Publications can be purchased at:
1024 Budapest, Fényes Elek u. 14-18.
Publication order: HCSO Information service
1024 Budapest, II., Keleti Károly u. 5-7.
Mail address: 1525 Budapest Pf. 51.
Phone: 345-6570, 345-6560, 345-6561
Fax: 345-6788
E-mail: informacioszolgalat@ksh.hu