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THE IMPACT OF GLOBALISATION ON TRADITIONAL STATISTICAL SYSTEMS

Supporting paper submitted by the Hungarian Central Statistical Office (HCSO)[1]

1. Globalisation is a complex group of phenomena, which nowadays is understood to mean the acceleration and deepening of the unification and integration processes of world economy adding that, naturally, globalisation affects cultural life, human relations, lifestyles and everyday life in addition to the economy.

2. The question is: what does statistics have to measure, what is it worthwhile for statistics to measure, and what is statistics able to cover with statistical data out of this complicated and extremely diverse domain of factors.

3. Based on experience gathered so far, statistics should measure the impact of increasing globalisation on economic life basically in three major areas: capital flow, measurement of direct capital investments, and in connection with this, economic activities of multinational enterprises; foreign trade of goods and services; and internationalisation of technologies.

4. However, international comparison requires the internationalisation of measuring globalisation as well; the statistical data on globalisation that are found in each country should be harmonised with one another, as well as with the data available in different international organisations (OECD, EUROSTAT, IMF). Having recognised this need, OECD has been working on the Manual of Globalisation Indicators

[1] Prepared by Anna Meskó and Mária Farkasházi.

for years; this Manual discusses the indicators that serve to measure globalisation and the contents of these indicators in five chapters, accompanied by a detailed methodological description.

5. Chapter 2 of the Manual addresses the measurement of foreign direct investment, and chapter 3 addresses the conceptual and practical problems of economic activities of multinational enterprises. Enterprises with a foreign participation have special importance in the Hungarian economy; they provide nearly half of the value added of the non-financial corporation sector, and their weight in import and export trade is around 80% (see the attached tables). Therefore, the HCSO has been investigating foreign direct investments for over 10 years, and has been preparing estimates of foreign direct investments and analysing the activities of enterprises with foreign participation since 1992, making use of the data sources available. However, the methods used by us do not meet international standards in all respects, and they are being continuously developed.

6. The chapter entitled “Measuring foreign direct investment” of the Manual contains the basic indicators for foreign direct investment, the indicators used to measure the impacts of capital investments, internationally harmonised conceptions, the relationship with the balance of payments, and the types, characteristics, problems, etc. of FDI. Taking these principles into account, the HCSO has developed a new methodology together with the NBNH. The main characteristics of this methodology are as follows.

- The *observation unit* is an enterprise operating with foreign capital in which the share of ownership of at least one non-resident investor reaches or exceeds 10 per cent. When determining the volume of foreign capital, we investigate owners separately and, in the case of more than one foreign investor, only those who have shares of at least 10 per cent respectively out of the enterprise’s share capital are taken into account. Shares of ownership of less than 10 per cent – regardless of the amount – are considered to be portfolio investments. (In previous years, HCSO took account of enterprises with a share of foreign ownership of 10 per cent or more, but this criterion was established not per investor but in an aggregated way, based on the data reported in corporate tax returns concerning the structure of ownership. Thus, the figures also included portfolio investments, as the 10 per cent limit interpreted as an aggregate did not filter out the investors who do not have a sufficient share at individual level.)
  The new accounts are based primarily on the data from the questionnaire entitled “Direct capital investments of foreigners in Hungary” but information from corporate tax returns continues to be used as a supplementary source of data. Tax data are absolutely necessary for identifying the group of data providers for the questionnaire, and for controlling and correcting the data reported. Data are estimated to the population as a whole by using corporate tax returns, because the questionnaire referred to is completed only by about 1700–1800 enterprises that have the largest foreign capital, which hold about 90% of foreign capital in the country. The data used for completion still contain portfolio investments, but are, according to our estimations, of a negligible amount.

- When determining the *stock of foreign capital* we are moving from subscribed capital per foreigner to equity capital per foreigner. Equity capital better reflects the result of transactions performed in the course of business, because in addition to subscribed capital, it contains capital

reserve, retained earnings accumulated from the profits of previous years, the valuation reserve and the balance sheet profit for the given year. Retained earnings depend greatly on the reinvested income of foreign investors. According to the accounting principle of ESA'95, this income "... retained earnings are treated as if they were distributed and remitted to foreign direct investors in proportion to their ownership of the equity of the enterprise and then reinvested by them".
The stock of foreign capital is recorded as the sum of equity per foreign investor and the amount of dividends per foreign investor. This correction is required because equity does not contain the dividend approved to be distributed by the owners for the given year, but the balance of payments statistics show this as a liability to owners, after which reinvested income is reduced by the same dividend in the course of the next year, meaning also a reduction in the stock of foreign capital. As this accounting takes place this way every year, actually the difference of the dividends of two consecutive years modifies the stock of foreign capital.

- *Accounting for dividends and distributions* paid and approved will also be modified, in connection with the items mentioned in the previous point, and with the fact that in compiling the balance of payments, the NBH is moving from a cash accounting to accrual accounting. In this framework, dividends approved that fall on foreign direct investment will be recorded in the year of approval, and dividends on portfolio investments will be accounted in the period of financial settlement. In national accounts, when accounting for income, we considered dividends to be income for the owners for the year when they were generated in the production process (the year in the annual report for which the company indicated the dividends). In order to converge the two methods of accounting and to continue harmonisation with the recommendations of ESA'95, we will begin a procedure also in distribution of income according to which "Dividends are recorded at the time they are due to be paid as determined by the corporation". In practice, this means the year following the given year.

- According to the general rule applicable to ESA'95 valuation, the value of assets and liabilities shall be determined using market prices valid at the time of preparing the balance sheet "…assets and liabilities are to be valued using current market prices on the date to which the balance sheet relates.". This also applies to foreign investments, with the addition that "Financial assets and liabilities that constitute direct investment are to be recorded according to the nature of the financial assets in the categories shares and other equity, loans, and other account receivable/payable. The amount of direct investment included within each of the those categories should be recorded separately as a memorandum item".
When determining the stock of the capital, we seperate investments in companies quoted on the stock exchange from those not listed. The capital of listed companies is recorded at market value, and that of the other companies, at book value. Of the latter, for enterprises that keep their books in foreign exchange, the value of equity per foreign investor is the value converted at the HUF mid-rate at the end of the period. The market value of listed companies is determined by multiplying the company's share capital by the ratio between the closing price on the stock exchange at the end of the year and the nominal value.
The HCSO's statistics on foreign capital meet international recommendations in terms of the main principles, but the following problems remain yet to be solved:

- so far, our office has published only data on inward foreign capital, and outward capital investments from Hungary have not been processed due to lack of time and staff;
- we have not solved the problem of indirect ownership, although steps have already been taken to develop complex economic units in the Business Register of Economic Organisations;
- data on accounting of incomes and costs between a parent and its foreign subsidiary companies are being processed;
- the NBH proves data on intercompany loans and portfolio investments;
- we are not able to distinguish between types of foreign capital according to whether it is green field investment, merger, acquisition or capital increase.

7. The NBH has data about the components of the balance of payments for the indicators recommended by the Globalisation Manual, and the NBH provides data also on FDI flow and income according to the old methodology. Production of data on reinvested income and FDI flows according to the new methods and reconciliation that is currently in progress between the two institutions, and NBH plans to publish these for the year 2004. The HCSO has foreign capital StocksFDIin data and their distribution, but the processing of StockFDIout data is also underway.

8. The chapter entitled "Economic activities of multinational companies" (chapter 3 of the Manual) defines the concepts of multinational and direct capital investment enterprises as well as parent company, together with the differences between these terms, the statistical units recommended for observation, the generation of corporate groups, the scope of indicators, etc. A lot of development will need to be solved in all phases of statistical activity in order to be able to satisfy data requirements and provide comparable data: this applies to the Business register, methodologies, data collection and processing as well.

9. In terms of the economic activities of multinational companies, we are able to produce only indicators that apply to enterprises that are registered and operating in Hungary, and we have no data about the business of enterprises operating abroad, with Hungarian capital or Hungarian and foreign capital. It follows that the HCSO has no data either on the production of the parent companies of multinational enterprises or on the number of their employees.

10. Out of the indicators currently requested in the framework of FATS-statistics, we are able to provide data on value added, net sales income, average statistical staff in a sectoral breakdown for companies with foreign majority, and the same data required for globalisation indicators for the entire corporate sector. On the other hand, it should be noted that the OECD requires data of such detail that it represents an onerous burden for the HCSO's professionals. For instance: staff and sales income data for enterprises with foreign majority (first sorting) by country (second sorting) and by industry (third sorting).

11. The information needs related to globalisation are given increasing emphasis also in SBS statistics. These are, for instance, SBS indicator systems applicable to credit institutions, insurance and pension fund activities, each of which contain data that describe international linkages. The Member States have provided a majority of these indicators on a voluntary basis so far, but the legislative

amendments being made nowadays make this a compulsory requirement. The voluntary data have not always been prepared using the same method, so it has been necessary to harmonise these as well; in many cases, the concepts and calculation methods need to be clarified. (An example for this may be the treatment of cross-border services of credit institutions, for which a certain number of States use the home country of origin method, and the others used the host country method. In order to eliminate multiple registration in an aggregation for the 11 Member States of the euro zone, the 15 EU Member States and at EEA level, all countries had to shift to the host country method last year. Converting the data created serious difficulties for the statisticians of the Member States concerned.)

12. Hungarian legislation applicable to financial activities is not completely liberalised yet, and the appropriate provisions will come into force only at the time of accession, so the SBS indicators of international activities have always fallen into the category of “the statistical phenomenon observed has not occurred” for Hungary. In practice, the EU law on the freedom of establishment and the freedom to provide services means that if a financial institution receives a license for performing a given service from a Member State, it will automatically be granted the right to pursue this activity also in the other Member States. Therefore, we need to prepare for producing the following statistics – listed only as examples – applicable to the single internal market and international activities:

- Gross premium written (and re-insurers share out of the gross premium written) in a breakdown by the country of residence of the parent company;
- Gross premium written by CPA subcategories (at five-digit level) and by Member States (in terms of life, non-life and composite insurers);
- Interest receivable and similar income received from activities performed in another EEA country in the breakdown by Member States;
- Interest receivable and similar income received by branches of credit institutions registered in another Member State for activities performed in the given Member State, in the breakdown by Member States;
- Number of pension fund members by gender and by geographic breakdown (own country, other EU Member States, other EEA countries, USA and Canada, Japan, and rest of the world);
- Total pension fund contribution/total investment, etc. in a geographic breakdown (as described for the previous indicator).

13. EUROSTAT pays special attention to elaborating pension funds statistics, launches and finances various projects for Member States, because cross-border pension fund activities will be given greater emphasis due to the mobility of labour force, which is expected to be accelerated after accession, which should also be reflected by statistics.

Foreign direct investment in Hungary

Countries	FDI (Billion HUF)										
	1992	1993	1994	1995	1996	1997*	1998*	1999*	2000*	2000*a)	2001*a)
EUROPE	281.0	452.2	641.3	995.4	1,145.1	1,576.8	1,897.1	2,156.8	2,430.2	4,829.7	4,819.3
EC	264.7	439.6	609.7	955.5	1,104.1	1,517.1	1,815.9	2,082.0	2,358.5	4,735.1	4,716.1
Belgium-Luxembourg	11.4	27.7	32.0	54.6	57.9	88.5	89.0	111.7	156.9	179.4	214.3
Denmark	1.1	1.6	4.7	8.1	10.8	9.7	9.0	9.5	14.4	19.3	25.0
France	18.9	30.6	42.8	106.1	120.7	118.2	141.8	163.3	191.4	319.6	341.9
Germany	69.4	183.1	183.7	321.6	368.4	506.7	648.0	715.5	757.7	2,586.4	2,104.7
Greece	0.3	1.0	0.7	1.3	0.9	1.8	1.1	1.0	0.5	0.8	1.0
Ireland	0.8	1.0	2.7	4.4	3.6	16.3	7.6	10.5	19.9	16.2	2.2
Italy	12.1	24.9	38.5	49.2	58.9	68.5	71.4	70.9	80.1	111.1	127.0
Netherlands	33.2	36.4	91.7	137.3	147.6	297.8	375.5	589.4	661.0	819.6	944.4
Portugal				0.5	0.9	0.6	0.9	1.3	3.4	2.8	4.1
Spain	0.1	0.6	1.2	2.0	2.0	2.4	2.9	9.5	11.2	9.2	7.8
United Kingdom	18.2	25.3	37.0	49.7	90.4	156.4	151.3	49.7	31.0	70.5	83.6
Austria	94.0	101.9	164.0	207.8	224.1	223.8	286.7	317.4	358.5	488.2	689.6
Finland	1.0	1.2	1.7	4.2	8.2	8.9	13.3	14.0	47.0	57.8	91.0
Sweden	4.0	4.5	9.1	8.7	9.8	17.5	17.4	18.3	25.5	54.2	79.5
Other Europe	16.2	12.6	31.6	39.9	41.0	59.7	81.2	74.8	71.7	94.6	103.2
Iceland				0.3	2.2	1.3	1.3	1.5	0.8	0.1	
Norway	0.0	0.0		1.7	3.9	4.2	6.9	8.6	8.0	10.0	13.6
Switzerland	16.2	12.6	31.6	37.9	34.8	54.2	73.0	64.7	62.9	84.5	89.6
NORTH AMERICA	48.8	139.2	124.7	216.3	271.4	333.9	290.2	237.9	247.3	440.4	587.5
Canada	2.4	3.9	7.2	7.7	6.0	22.2	5.6	6.9	6.2	21.6	30.3
USA	46.4	135.3	117.6	208.6	265.4	311.7	284.6	231.0	241.1	418.8	557.2
OTHER DEVELOPED COUNTRIES	17.5	27.1	19.1	17.8	29.6	33.6	45.4	52.0	61.8	37.5	105.8
Australia	6.9	8.6	1.4	0.4	1.7	0.3	0.3	0.2	0.2	0.2	0.1
Israel	0.9	2.0	2.2	0.3	2.2	1.9	1.7	0.4	0.8	0.5	0.8
Japan	9.7	16.5	15.5	17.1	25.4	31.3	43.4	51.4	60.8	36.8	104.9
New Zealand				0.0	0.2	0.1	0.0				0.0
AFRICA	0.0	0.0	0.0	2.4	0.3	14.7	14.3	0.2	1.0	0.9	5.1
Egypt	0.0			0.0	0.0	0.0	0.0	0.2			1.4
Other				2.4	0.3	14.7	14.3		1.0	0.9	3.7

Foreign direct investment in Hungary

Countries	FDI (Billion HUF)										
	1992	1993	1994	1995	1996	1997*	1998*	1999*	2000*	2000*a)	2001*a)
CENTRAL AND EASTERN EUROPE	20.9	12.4	19.2	21.0	24.3	22.9	25.0	48.4	24.1	18.8	23.7
Bulgaria				0.2	0.2	0.0	0.2	0.6	0.5	0.4	0.1
Czech Republic									1.6	1.3	1.7
Slovakia									6.8	1.5	0.4
Poland	0.0	0.0		0.2	0.2	0.3	0.3				0.0
Romania	0.0			0.0	0.0	0.0	0.1	1.5	2.0	1.4	1.7
Russian Federation									7.9	11.7	15.0
Ukraine									2.7	1.9	1.6
Other	20.9	12.4	19.2	20.6	23.9	22.6	24.4	46.3	2.6	0.6	3.2
LATIN AMERICA-CARIBBEAN	0.0	0.0	0.0	5.7	4.5	3.2	6.5	7.1	7.1	23.2	29.2
Argentina					0.0	0.1	0.1				
Brazil				0.1	0.1	0.1	0.1		0.2	0.3	
Chile					0.0	0.0	0.0				
Other				5.6	4.4	3.0	6.3	7.1	6.9	22.9	29.2
MIDDLE EAST	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.8	0.9	0.0
Syria	0.0			0.1	0.1	0.1	0.1				
Other					0.0	0.0			0.8	0.9	
SOUTH AND EAST ASIA	4.2	2.8	3.3	16.9	37.5	24.9	39.6	19.2	42.6	34.4	47.2
DAEs	3.9	2.5	3.2	8.2	37.1	24.2	26.5	15.1	37.6	30.1	43.4
Hong Kong				0.1	0.2	0.4	0.4				
Korea	3.9	2.5	3.2	6.4	13.0	15.9	18.0	7.1	28.0	24.4	32.9
Malaysia				1.1	2.1	4.3	4.4	2.3	4.1	3.6	9.1
Singapore				0.5	0.4	3.5	3.7	5.7	5.3	1.9	1.4
Taiwan				0.1	21.4	0.1	0.0				
Thailand					0.0	0.0			0.2	0.2	
Other Asia	0.3	0.3	0.1	8.7	0.5	0.7	13.1	4.1	5.0	4.3	3.8
China	0.3	0.3	0.1	0.2	0.4	0.6	1.1	0.6	1.1	0.8	0.9
India				0.2	0.1	0.1	0.0		0.8	0.6	0.6
Indonesia											
Philippines								2.5	2.5	2.2	2.3
Other		0.0		8.3	0.0		12.0	1.0	0.6	0.7	
OTHER COUNTRIES	2.1	9.9	15.7	26.6	31.9	36.1	46.2	102.9	120.6	612.2	577.4
TOTAL	*374.5*	*643.6*	*823.4*	*1,302.2*	*1,544.7*	*2,046.2*	*2,364.4*	*2,624.5*	*2,935.5*	*5,998.0*	*6,195.2*

- Without off-shore enterprises and enterprises in which the share of FDI is under 10%.
- a) According to new method of FDI: using owners' equity instead of subscribed capital; the exchange of enterprises are reported at market value, the others at book value.

Value added and sales of the enterprises in Hungary *

Year	Value added			Sales		
	total	of which: with foreign direct investment		total	of which: with foreign direct investment	
	enterprises			enterprises		
	billion HUF		%	billion HUF		%
1992	1 284,1	259,4	20	5 761,5	1 409,9	24
1993	1 474,9	447,5	30	6 558,9	2 104,9	32
1994	1 868,0	732,2	39	8 405,9	3 173,0	38
1995	2 586,2	999,3	39	11 697,1	4 756,4	41
1996	3 180,8	1 354,2	43	14 892,4	6 572,5	44
1997	4 179,7	2 009,1	48	18 992,1	9 117,4	48
1998	5 045,1	2 436,1	48	23 480,0	11 323,8	48
1999	5 609,5	2 734,7	49	27 089,8	13 552,5	50
2000	6 392,1	3 120,8	49	32 714,2	16 511,5	50
2000[a)]	6 511,4	2 813,0	44	32 714,2	15 406,5	47
2001	7 265,3	3 284,5	45	37 637,6	18 392,1	49

* Without financial intermediation.
a) According to new method.

Value of external trade of the enterprises in Hungary

Year	Imports			Exports			Balance		
	total	of which: with foreign direct investment		total	of which: with foreign direct investment		total	of which: with foreign direct investment	
	enterprises			enterprises			enterprises		
	billion HUF		%	billion HUF		%	billion HUF		%
1994	1 537,0	880,1	57	1 128,7	614,1	54	408,3	266,0	65
1995	1 936,4	1 217,1	63	1 622,0	937,2	58	314,4	279,9	89
1996	2 763,9	1 940,7	70	2 392,3	1 639,1	69	371,6	301,6	81
1997	3 961,2	2 941,2	74	3 566,8	2 691,1	75	394,4	250,1	63
1998	5 511,5	4 087,7	74	4 934,5	3 806,1	77	577,0	281,6	49
1999	6 645,6	5 083,3	76	5 938,5	4 749,2	80	707,1	334,1	47
2000	9 064,0	6 928,1	76	7 942,8	5 937,7	75	1 121,2	990,4	88
2000[a)]	9 064,0	6 460,4	71	7 942,8	5 760,3	73	1 121,2	700,1	62
2001	9 665,1	7 626,3	79	8 748,2	7 088,2	81	916,9	538,1	59

* Without financial intermediation.
a) According to new method.