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### HUNGARIAN PIG-CHAIN ON "EC." /DUTCH/ SCALE

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#### Aim and reasoning

The time has arrived even in Hungary, when product marketing should be treated as an important part of the agricultural policy. Product- and productmarketing policy is becoming more and more important especially with respect to exportable products.

Hungarian pig (pork) production has been about a 20 % share in total agricultural production and 25 % proportion in agricultural export for a long time. The aim of this study was to 'state' the Hungarian performances throughout the whole pig-chain (production-processing-marketing).

In the changed geopolitical situation Hungary has to be measured on the European Community (EC) basis. That is why we tried to determine the relative "actual" performance level (as a starting point to a new strategy) of the Hungarian pig column in comparison with that of the Netherlands as a selected EC country. The Netherlands had been chosen to be the counterpart in the comparative analysis for several reasons eg. size of production, consistent integration, high level of quality and last but not least for its export orientation.

The "actual" level refers to the years of 1989 and 1990 which represent a time of first steps to adjust without remarkable production disturbing side-effects of socio-economical transformations.

#### Hungarian pig chain/in two divisions/ at work

The Hungarian pig (pork) production-processing-marketing chain consists of five basic activity groups.

1. Breeding.
2. SERVICES- and input supply.
3. Multiplication and fattening.
4. Slaughtering-processing-packing.
5. Marketing.

The vast majority of transactions rests on bilateral (sometimes even trilateral: small holder. large farm, Slaughterhouse) contracts.

Contracts are based on prices bargained and other conditions such as time of delivery for procurement.

Unlike to the West European farmstructure an important general character of the Hungarian Agriculture is the dual sector farming.

These two basic types of farming have to be distinguished.

The small-scale /household, private backyard/farms are restricted to minimal extentions, operating on private ownership and mainly on part-time activity.

The other sector-type is the so called large-scale farming, including State-Farms, Companies and Cooperatives with /extremely/ large horizontal territory.

Small-scale farms produce mainly for family and local /rural/ consumers while larg-scale companies and cooperatives are mainly influenced by more demanding markets.

Methodology and difficulties of the comparison.

Because 'competitiveness' is a relative 'quality', complex econometric tools of a comparative analysis were used in approaching this aim.

For the sake of a real comparison techniques and economical performances of Hungary have been recalculated and converted to the basis of Dutch /TEA-SIVA, LEI, CBS and PVV/ used methods and statistical technics. That way adequate "common denominators" have been found for technical performances, whereas the comparability of recalculated costbenefits data remained on a restricted level. This problem is mostly due to the different philosophy and methodology of the recent accountancies in the two countries under review and to a lesser degree is the consequence of the not absolute accurate foreign-exchange rate of the Hungarian Forint. Therefore it is better to distinguish the analysis of monetary values as a parallel-type comparison, which nevertheless does suggest valuable conclusions too. Market-competition on the international level differs from rivalry between one participant and another within a country. International foreign trade is considered to be a competition among National Systems. This type of national competitiveness is determined not only by measurable direct comparative advantages but also by the complexity of the more or less succesful exploitation or substitution of the available resources in the country concerned.

In this respect there is a general difference between the two pigchains. The Dutch have exceeded /with an almost entirely imported feedbasis/ its national land resources, while the Hungarian column lags behind its natural potentials. /Both grain and meat are exported every year/.

It's clear that the Hungarian and the Dutch pigfarming differ also in several detailed respects. Moreover several conventions /definitions/ used in the two countries are different to some extent. E.g. the production cycle as a whole can be broken up into specific phases, which should be defined in exactly the same way.

Different results can be expected for the number of pigs per sow per year, for the daily weight gain as well as for the feed conversion ratio within distinguished periods, if the pig is defined as 'ready to finish' (semiproduct) at the time of 'weaning' (about 6-7 kg in Hungary) or just then, when pigs are transferred to the feeding-finishing herds, that means about 25 kg weight. (In the Netherlands)

A 'misleading' way of calculation used very often in Hungary is the so called summarised 'feed-meat ratio'. According to this index all the feed-consumed in a 'pig-farm' (feed of sows, piglets, weaners and finishing pigs) is accumulated and divided by the yearly production of live-weight.

This short explanation makes it clear that for the sake of an objective comparison, it was necessary to carry out several 're-calculations' of Hungarian statistical data.

These recalculations between weight or 'age' groups as well as in all other necessary cases have been based on the Dutch definitions as 'common denominators'. An other difficulty of the comparison is related to the carcass-quality measurement.

Earlier, two different carcass-grading schemes were used in Hungary. Both were based on a complicated estimation of fat and meat relation. Fat thickness was measured on skinned sides while in case of deskinning halves the weight of bony-meat was compared with the total weight of carcass. All of these procedures were carried out irregularly by slaughterhouses until this practice disappeared almost completely.

Bearing in mind the unneglectable necessity of an objective classification; meat-researchers have made a serie of experiments to adopt and introduce the EC- classification system (Hennessy Grading Probe) also in Hungary.

Data about these experiments haven't yet been published, because of all the attempts failed to give reliable results at required level.

Nevertheless, considering as a basic problem in Hungarian pigsector we involved them in the present study. The data of the most "successful" Grading Experiments - extending to 15.964 pigs - are illustrated by column diagrams compared with national-level figures of The Netherlands.

As can be seen the major grading problem in Hungary is the exceedingly great variability of heterogeneous pigpopulation.

(As a consequence of the different feeding techniques and the extensive usage of non stable hybrids.)

That's why the attempts/till now/have failed, statistically lagging behind the EC. Standards. In the presented case the experimental correlation coefficient has reached only a 0.64 level opposite to the EC. minimum of 0.8; while the residuals of Standard Deviation of 3.87 were higher than the EC allowed maximum value of 2.5./

### Results

Hungarian performances compared with the Dutch results are illustrated on a summarizing chart of the performances in figure 1. This figure indicates the relative value %/ of the ten /10/ most important partial performances, achieved by the Hungarian pig-chain. The results have revealed, that Hungarian performances are weaker for all indicators than those of their Dutch counterpart. Backwardnesses of the Hungarian pig-chain have been found in different distance from the Dutch basisline.

### Conclusions

The general conclusions that can be formulated according to this study are:

1. The Hungarian pig chain is less competitive than the Dutch one in every respect.
2. The comparative analysis revealed that - in different magnitude - each participant of the chain has 'contributed' to the whole performance deficits. All the participants of the activity have committed their own deficit-causing mistake /the only exception is 'perhaps' the pig itself in terms of genetic potential/.
3. The detailed relative /and absolute/ performance deficits throughout the whole column concentrated in the economical-financial performance of the Hungarian Meat Industry.  
The accumulated, total performance deficit consequently not only refers to the weaknesses of the meat industry but it should be considered as a 'team performance' of all participants.  
At the meat-industry level, the infiltrated /production-chain committed/ performance-deficits should be distinguished from those which are caused by the industry itself. Among the three main performance indices, that refer to the industry, the 'unit cost of slaughtering' with its 17.1 % relative deficit is an inside 'result' of the partly utilized capacities, low labour productivity, bottlenecks between the departments throughout the Hungarian Meat Industry.  
The other two performances: 'the export price of pork' and the 'benefit per cost ratio' of the Meat Industry /lagging with 17.4 % and 26.1 % behind the respective Dutch data/ are of more complex, deficit accumulating character. In these performances the infiltrated and accumulated deficits are merged with the 'specific' deficits made by the industry.

Denomination	Numeric value of the performances		Relative value % Nétherlands = 100
	Dutch	Hungarian	
1. Pigs reared (sow) year	19.67	15.75	80.1
2. litters (sow) year	2.16	2.02	93.5
3. pigs born/litter	10.60	9.75	91.9
4. feed conv. ratio (inversed.)	3.00	3.31	90.6
5. daily weight gain	681.00	654.00	96.0
6. benefit per cost ratio of production	108.70	94.90	87.3
7. meat percentages	53.10	50.40	94.9
8. unit-cost of slaughter (inversed)(gld. )	17.50	23.80	73.5
9. export price of pork \$/kg	2.22	1.64	73.9
10. benefit per cost ratio of meat industries	102.50	84.70	82.6

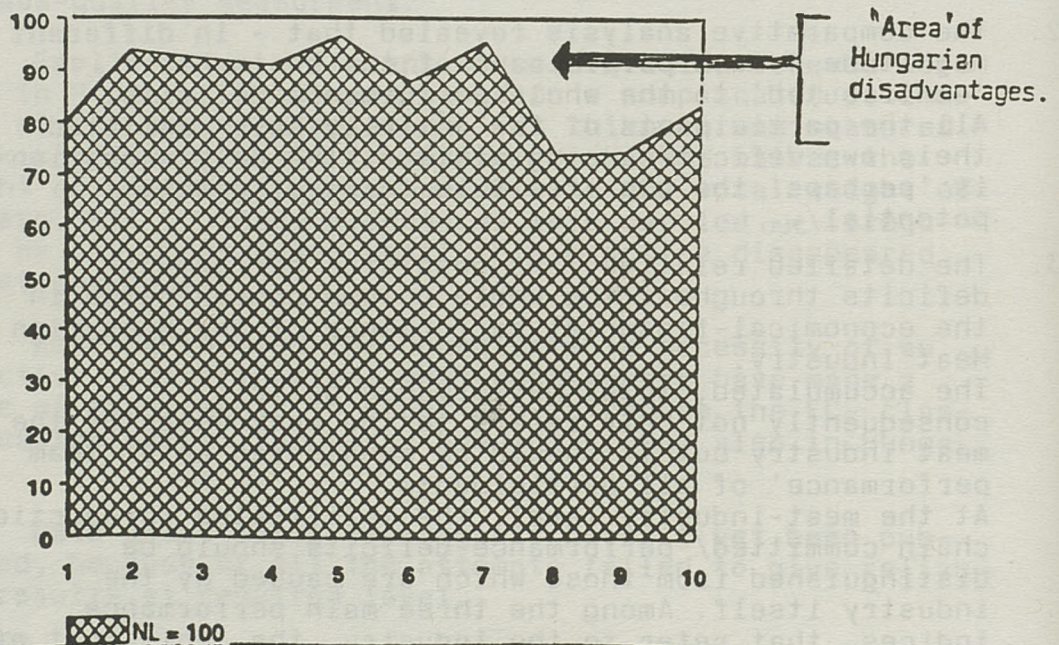


Figure 1. Summarizing chart; Hungarian pig-pork column performances on the Dutch-scale 1989/90

Source: Authors' calculations

4. A specific critical point of the Hungarian pig column eg. is the low performance of the breeding-prolific activity in farms.

In these production phase the disparity between Dutch and Hungarian performances is as high as 20 % on the number of reared piglets /sow/ year.

Finishing-fattening herd performances of Hungary, such as feed conversion and daily weight gain are closer to the Dutch level, although also these performances have been damaged by non satisfactory protein level and several toxic effects of badly stored fodder cereals. For these reasons the 'gap' between benefit-cost ratios of fattening herds in the two countries has been found above 12 %, which is not acceptable.

This is a result of badly managed 'orientation', due to the 'consistency' level between the 'ends and means' of the activities has been damaged. The combination of production factors became confused /mixed/ in terms of compatible intensity level. Highly demanding, sensitive hybrids were kept in nomadic housing circumstances or fed almost exclusively with corn.

5. Although we could not qualify the Hungarian pig-chain as a competitive one against the Netherlands /which represent not an average but a top level of EC pig meat production/ there were and are still in the present situation quite a great number of farms and companies in Hungary at competitive level. There are also farms which can possibly improve towards a required competitiveness. That is why we are for a selective policy in Hungary.

#### Recommendations

The Hungarian pig sector like the whole Hungarian economy is balancing on a socio-economical tightrope in a very stormy geopolitical /transformation/ situation. Therefore it has to be made a distinction between the short term possibilities and long run opportunities of strategic treatment.

In the short run the real task is to prevent further weakening of performances as a result of the diminishing purchasing power of the consumers in Hungary and in the neighbour countries. It means in brief, that the duality between the 'minimum cost-price' oriented and the 'maximum quality' targeted divisions of production should be treated as existing and coexisting reality.

In the long /medium/ run:

1. Due to this dualistic situation, there is a special need for a differentiated but combined strategy between the low cost-low price oriented /backyard-small farm-local butchery- local consumers/ division and the industrialised- marketoriented one.

2. In the first /self-supplying/ division the production-influencing measures are restricted to veterinary-hygienic control , feeding extention and prevention of genetic degeneration.  
However, the marketoriented one will be directed by industrial /capital/ integrations which eliminate any quality-compromise transmitting all the marketsignals. The introduction of the 'SEUROPE' type quality controll especially in this part of production /completed with preferences avoiding any kind of possible contra-effects/ is an urgent must.
3. Regrouping or proportional changes /between the two divisions/ have to keep abreast with the general economic developmert in the country and accessable markets.
4. Many other detailed recommendations could be directed to the different acting participants of the chain paying the attention on several local opportunities of changing into more effective approaches.  
But we don't do this because we are convinced, that on the "renewed" fundaments of individual ownership and responsibility the vast majority of Hungarian people involved in the pig chain can find on their own the ways and means on the Hungarian path to do better.

#### Recommendations