

Philosophy of globalisation and competitiveness¹

Filosofie globalizace a konkurenceschopnost

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Abstract: The paper deals with issues related to the process of globalisation in combination with recent development in organisation theory. The focus of the paper is on organisation approaches to enhance competitiveness of businesses in global arena. The analysis concludes by recommendations for managing authorities of agriculture, education and the home institution of the author.

Key word: globalisation, organisation theory, management principles, competitiveness

Abstrakt: Příspěvek se zabývá faktory ovlivňujícími proces globalizace v kombinaci s moderním vývojem v oblasti teorie organizace. Příspěvek je zaměřen na organizační přístupy zvyšující konkurenceschopnost podniku v globální aréně. Analýzu uzavírají doporučení pro nadpodnikovou sféru řízení v oblasti zemědělství, vzdělávání i pro management autorovy domácí instituce.

Klíčová slova: globalizace, teorie organizace, principy řízení, konkurenceschopnost

The present life is full of contradictions, surprises and paradoxes. It is necessary to learn understanding and accepting them, we can live with them, and we can even manage them. It is necessary in the present turbulent time, when paradoxes are stepping forward. Their sense lays in understanding, that even two contradictory attitudes can be simultaneously true. It is necessary to learn forming the balance of contradictions. Conflicts can co-exist, it is necessary to learn living with them. Thus, we meet with the fact, that enterprises, organisations can be simultaneously centralised and decentralised, diversified and integrated. Disciplined and loosened at the same time. Oriented globally as well as locally, with the relationships of competitiveness as well as of co-operation.

AIMS AND METHODOLOGY

The globalisation and internalisation processes form the objective tendency of the individual societies development. The aim of the contribution is to define the phase space of the enterprises and organisations management changes in consequence of these processes. The methodological tools used are namely the methods of analogy, as well as of analysis and synthesis applied in the frame of the organisational theory and the method of strategic management.

DEFINING OF THE ENVIRONMENT CHARACTERISTICS

The economic and social environment at the beginning of 21st century is characterised by the whole series of discontinual changes. Many theoreticians say, that the future will not be the continuation of the past (Charles Handy, Peter Senge, C.H. Prahelad). To me, these statements do not seem to be well founded, since it goes, in consequence of a higher level of knowledge, only of the level of distinction change, of learning the correlation's of a different order.

Nevertheless, the ongoing **organisational changes** evoke a series of questions:

- how can the models of thinking be changed together with the system models impacting the whole organisation
- what role will be, in the transformation of organisations, played by technologies
- how to create the decentralised net organisation
- which factors keep the net organisation together
- how to ensure the transition from a mere distinguishing of information through the net to creating new knowledge and the management infrastructure
- what will be the corporation principles of 21st century, whether the management will share the decision-making regarding ownership and operation of the organisation with people
- how to build the “high trust” culture

¹The contribution presented at the conference Agrarian Perspectives IX – Globalisation and Competitiveness (CUA Prague, September 2000)

– whether the transition to new management models will be a global phenomenon.

In answering these questions of organisational changes, it will be necessary to solve the following problems on the **level of organisations**:

- the time proportion endeavoured on the management of the present and on creating the future
- the role of technologies in creating the competitive advantage
- the forms of ensuring the balance between the need of radical changes and the need of strategic continuity
- utilisation of new opportunities and removing of risks
- defining of the role of leading personalities in the global economics success
- support of the development of employees leadership abilities on all levels
- creating conditions of the people's self-realisation.

CHARACTERISTICS OF THE FUTURE DEVELOPMENT IN THE PROCESS OF GLOBALISATION AND COMPETITIVENESS

The approach to the mentioned problems management is connected to creating of the new thinking and new ideas of the future.

Those are connected to the following **characteristics**:

- New conception of the management principles of organisations, society, personal life.
- New conception of competitiveness, new evaluation of competitive advantages in the conditions of global economics.
- New conception of management, when the innovation of management approaches and methods, stressing of the process management, system approach, the role of individual and collective and the principles of learning society are arrived at.
- New management conception, based on different ways of freeing the intellectual capacity of organisation and forming of intellectual capital. The questions are connected to the problems of the competencies decentralisation, emphasising of the role of the society members' identification with their goals and strategies.
- New conception of the markets connected to declining of the geographical position importance and respecting the dominant demographic powers and principles of the products and services marketing.
- New concept of the world from the viewpoint of the world economic competition character, the changing role of the state, the role of science.

EXAMPLES OF THE NEW MANAGEMENT APPROACHES IN THE CONDITIONS OF THE GLOBALISATION AND COMPETITIVENESS PROCESS

As an example of the new approaches and the philosophy of management, the "Big 6" model can be men-

tioned. These principles are utilised in the quality management output systems also in the Czech Republic, even if they are only at the beginning. The essence lays in loosening of the management system and inciting the activity not only of leading managers, but also of their subordinates.

The system includes 6 principles :

1. JIT – Just In Time
2. MBF – Management By Fact
3. BPR – Business Process Re-engineering
4. LO – Learning Organisation
5. TQM – Total Quality Management
6. TOC – Theory of Constraints

CONSEQUENCES OF THE GLOBALISATION AND COMPETITIVENESS PROCESSES IN THE CONDITIONS OF AGRICULTURE AND EDUCATION

The changes expected in future are not anything unexpected, they do not mean denying of the past. They just represent, in the frame of the globalisation process, a change in the distinction level of understanding the structure, behaviour of systems and processes, of stressing the development trajectory through the form of discrete changes.

Individuals, organisations and states studied are the systems, which are becoming, at the present distinction level, the subsystems, the elements. If we know their principles of behaviour, that is the behaviour principles of people and organisations, it is then possible, on the principle of analogy, to deduce also the behaviour of systems, that is of different corporations, national economies, states.

Thus, it is possible to answer the questions connected with the globalisation of demand, supply, competition and strategy.

Behaviour principles of people and enterprises in the local and global conditions

During the last decades, there were elaborated in the area of psychology in detail the principles the behaviour of people, in the area of organisation and management theory the principles of organisational enterprise systems behaviour.

The **behaviour of people** (CH) depends not only on the personality of an individual, but also on the situation (S).

$$CH = f(O, S)$$

The behaviour of people is thus influenced both by biological, as well as social determinants. Even if it is possible, in the global conditions, to abstract from many factors, it is necessary, with regard to the higher social entity, to respect certain areas of social determinants, like the factors of social norms, habits and laws. On the personality side, it regards above all the hierarchy of values and needs of the motivation area. Neither can the actuality of the needs of safety, social contacts, independence,

activity, acceptance and self-realisation on the national economies level be overlooked.

Similar situation is also with regard the relationships characterising the **behaviour of enterprises**:

$$E_t' = C \cdot a[1 + C \cdot (F + R)] + [C \cdot (F + R)] \cdot f_o$$

where:

- e_t – resulting behaviour of the organisational system in the relevant time period
- C – structural variable
- A – variable of external environment
- F – variable of human element
- R – organisational variable
- t – time interval
- f_o – initial behaviour divergence from the requested equilibrium (destination) state

From the relationships presented, there issues the need of knowledge of the external environment parameters (level), which can be taken as constant. Further, the knowledge of the qualification level of both leading managers as well as their subordinates and also of the adjustment level of individual enterprise resources (from the viewpoint of the level of technical, technological, organisational, social and managing processes) is necessary. Similar demands have to be made also with regard to the parameters characterising the external and internal development factors of the higher territorial or social entities.

Conclusions and recommendations for the managing authorities of agriculture, education and the Czech University of Agriculture

- a. On the level of the **sector of agriculture**, in is necessary to respect the claims of
 - relative self-sufficiency
 - independence
 - need of communication, trade, exchange of experiences
 - confrontation of competitiveness
 - self-realisation

- knowledge of and adapting to the external environment conditions (legislation, technologies, management, the EU)

- analogous institutional and structural formation
- application of modern management methods.

b. In the area of education system

- opening of the education system (university education) to the highest possible number of applicants
- orientation of education into the areas harmonised with the changing proportions of human activities
- increasing of students and teachers mobilities
- increasing of the share of students' self-study
- introducing modern tuition methods
- deepening of scientific research activities from the viewpoint of system approaches – forming of heterogeneous research teams
- wider incorporating of students into the scientific research projects.

CONCLUSION

From the above mentioned, it follows that the traditional management conception is reaching the end of its days. Also the slogan “Thing global, act local” is changing to the today's slogan “Think local and act global”. The more universal character we acquire, the more local we act.

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Arrived on 15th December 2000

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Globalisation¹

Globalizace

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Abstract: Globalisation was evoked by the technological, social and cultural changes and has thus decreased the economic distances among countries considerably. Improvement of transport and communication technologies lowered transport costs of commodities, people and information. The traditional governmental policies restricting the trans-border transactions were mitigated or removed, in the consequence of which international trade and foreign direct investments (FDI) increased. Globalisation is changing the world economy properties and influences the basis of the successful economic development approaches, what in turn increases the possibilities of private individuals and enterprises, but decreases the possibilities of politicians in the traditional sphere. Therefore, globalisation means that markets, investments and inter-enterprise relationships are still less limited by national borders. All this owing to the trans-national companies (TNC), FDI, common enterprises, common research and development or technological licences. The globalisation speed increases namely with the speed of scientific and technological development. Under the impact of its tempestuous development, there was reached not only a pronounced development of the economic life internalisation, but also of the innovation dynamism in the technological sense. Globalisation is supported by liberalisation and vice versa, globalisation speeds liberalisation. The key liberalisation point in all countries was increasing of the external openness. Liberalisation has enlarged the efficient economic space and backed the globalisation process. Producers and investors behave still more, as if world economy was just one market with the regional and national sub-areas, rather than the grouping of national economies connected by trade and investment flows. However, the globalisation level of trade, FDI, international finances and labour mobility is different. The phenomenon of globalisation leads to increasing the mutual interdependence of national economies as well as of the mutually connected economic activities in the sphere of trade, investments, money and finances. The ability of national policies to reach national goals through the means available is decreasing, while the abroad policies and development increase their impact on economic development.

Key words: globalisation, world economy, theoretical issues of globalisation, basic concept of globalisation, transnational corporation (TNC), foreign direct investment (FDI)

Abstrakt: Globalizaci vyvolaly technologické, společenské a kulturní změny a značně tak zmenšily hospodářské vzdálenosti mezi zeměmi. Zlepšení dopravních a komunikačních technologií snížilo náklady přepravy zboží, peněz, lidí a informací. Tradiční vládní politiky omezující přeshraniční transakce byly zmírněny anebo odstraněny. v důsledku čehož došlo k růstu mezinárodního obchodu a přímých zahraničních investic (PZI). Globalizace mění vlastnosti světového hospodářství a ovlivňuje podstatu úspěšných hospodářských přístupů k rozvoji. což zvyšuje potřebu zajistit udržitelnost hospodářského rozvoje. Globalizace zvyšuje možnosti soukromým jednotlivcům a podnikům. ale snižuje možnosti politiků v tradiční oblasti. Globalizace tedy znamená. že trhy, investice a mezipodnikové vztahy jsou stále méně určovány národními hranicemi. To vše díky nadnárodním společnostem (TNC), PZI, společným podnikům, společnému výzkumu a vývoji či technologickým licencím. Rychlost globalizace se zvyšuje zejména s rychlostí vědeckotechnického pokroku. Pod vlivem jeho bouřlivého rozvoje došlo nejen k výraznému pokroku internacionalizace ekonomického života, ale i inovačního dynamismu v technicko-technologickém smyslu. Globalizace je podporována liberalizací a naopak globalizace urychluje liberalizaci. Ve všech zemích bylo klíčovým prvkem liberalizace zvýšení vnější otevřenosti. Liberalizace zvětšila výkonný hospodářský prostor a podpořila proces globalizace. Výrobci a investoři se stále více chovají. jakoby světové hospodářství bylo jedním trhem s oblastními a národními podoblastmi, spíše než uskupením národních hospodářství spojených obchodními a investičními toky. Liší se však stupeň globalizace obchodu, PZI, mezinárodních financí a pohybu pracovních sil. Jev globalizace vede ke zvětšování vzájemné závislosti národních hospodářství i vzájemných spojení hospodářských činností v oblastech obchodu, investic. peněz a financí. Schopnost národních politik dosáhnout národních cílů za použití jim dostupných prostředků klesá, zatímco politiky a vývoj za hranicemi zvyšují svůj vliv na hospodářský vývoj.

Klíčová slova: globalizace, světová ekonomika, teoretická východiska globalizace, základní koncept globalizace, transnacionální korporace (TNC), přímé zahraniční investice (PZI)

¹The contribution presented at the conference *Agrarian Perspectives IX – Globalisation and Competitiveness* (CUA Prague, September 2000)

The concept of international relationships is of late supplemented by other paradigms. One of these is globalisation (Cerny 1997), which was induced by technological, social and cultural changes and which has shortened the economic distances among countries considerably. The improvement of *transport and communication technologies* has decreased the transport costs of commodities, capital, people and information. *Traditional governmental policies* limiting the trans-border transactions were mitigated or removed, with the consequence of increasing the international trade and foreign direct investments (FDI). Globalisation is changing the characteristics of world economy and influencing the base of the successful economic approaches to development, what in turn increases the need of securing the economic growth sustainability.

THEORETICAL ISSUES

Globalisation is now connected, after the first stage, characterised by the information technology development, with the immense economic dash on the worldwide scope. In a wider concept, this global phenomenon induces market, law and politics into such relations, which are in the least making the autonomy of individual countries problematic or relative.

However, globalisation does not mean only the escalation of economic crossing the national state borders together with homogenisation of other cultures through the North American civilisation, but also the gradual process of relativisation and de-centralisation of this civilisation through the contact with other cultures and their acceptance.

Certain universal claims of the Euro-American culture, which cannot be simply taken as an attempt at the rest of the world colonisation and as a demonstration of the so-called globalisation (i.e. the combination of globalisation and localisation), are confronting this relativisation, however. Namely, globalisation is a more complex process, which brings about also an important and positive element in the frame of carrying out human rights and democracy.

Global economics origins and frames out as a certain continuation of the development process called until late world economy internalisation, as a quite new phenomenon in a different quality and intensity, i.e. as globalisation. That is, as a process which increases the market and production interdependence of the individual countries owing to the dynamics of commodity and service trade as well as the capital and technology flows. There is going on the transformation process, through which new economic forms emerge, and national products and technologies as well as national economies disappear.

Economy of the individual countries, as well as world economy in total, is in the process of global restructuring of the economic, social and institutional nature.

Globalisation increases the possibilities of private individuals and enterprises, but diminishes the possibilities of politicians in the traditional sphere. Therefore, globalisation means that the national borders still less define the markets, investments and international relations. All this owing to the trans-national corporations (TNC), foreign direct investments (FDI), common enterprises, common research and development or to the technological licences.

Globalisation is, however, challenged by the perpetual existence of the strong state element, which takes over after the stabilisation of institutional and social structures. The state as an institutional structure does not decline, but perpetuates new, more complex activities in a new, more open and mutually interdependent world (Boyer, Drache 1996). Globalisation is thus denying itself through other paradigms.

Globalisation concepts are different, as follows:

- definition of the *main driving force* (Brittan – convergence of interest rate and prices in the stock exchange², information technologies revolution, liberalisation)
 - quantitatively *new development level* of human society
 - process of convergence, when the social, economic and politic structures are becoming still more alike in the diminishing world (universalisation)
 - *complex, differentiating (even multiplying) phenomenon* (Hugo Radice, participation)
 - *international division of labour* as such, followed by the world trade liberalisation. Already Adam Smith, the founder of the modern economics, has revealed in his cult book, that the division of labour leads to the labour productivity growth. Still better results can be reached by diversification of the production process into a higher number of partial steps. This process is going on for quite a long time on the world level and is just labelled as globalisation.
- Production multiplication based on the diversification of production process with the otherwise same use of labour and capital can be caused by many *factors*:
- Better utilisation of the specific qualities of people, machinery or land, which enables ***production specialisation***.
 - Through trade, it is then possible to acquire other goods and services. The time lost through the change process can be subsequently saved through the division of labour in production process and the specific advantages of only one commodity production are utilised through the specialisation of activities.
 - Man learning through the working process. With increasing experience, specific activities can be perpetuated more quickly and better. ***Learning by doing*** applies as well to individuals as to the organisations as a whole.

²⁴Globalization regards the world, in which there exists, after the exchange rate and delay risk release, the unified international interest rate". Brittan, The Financial Times, June 6, 1996

– Specialisation by diversification of the production procedure into a high number of the often-repeated individual activities brings about the *advantages of mass production*. The machinery specialised at only a certain operation of the production process can be afforded only if this activity is a profitable one. And this can be reached, at such machines, only through the mass production, because it is necessary to produce high enough quantities.

These advantages can be put into effect not only in a factory, but also in the whole national and world economy. On the world level, it is possible to effectuate the advantages of a society with the division of labour through the trans-national specialisation. The Adam Smith's theorem on *free trade* states, that free trade among countries brings about more advantages than protectionism. This is one of the pillar advice given by the economic theory to politicians, who were very hesitant to take it into consideration in past. Nevertheless, the after-war period gave an example of the production development enabled by the division of labour. The world GDP has increased 5 times since 1950. World trade liberalisation has been one of the most important, if not really the most important, issue of this development move and the consequent growth of welfare.

Main globalisation phenomena (Robejšek 1998):

- FDI concentration leading to the rule of finances over production
- growing importance of knowledge and expert systems
- growing number and importance of trans-national corporations (TNC)
- emergence of the group of international businessmen
- development of supra-national economic diplomacy
- decreasing importance of the national states power in the traditional areas
- growing dependence of states on the international trade and FDI – all can win in this fight, but the cheap labour is challenged by the minimum social and environmental standards, which in turn increase product prices.

As a proof of these tendencies, the following data can be offered:

- in 1996, foreign investments reached the value of 347 bill. USD, what exceeds the level of 1986 by 75%
- the costs of international mergers and acquisitions (M&A) were 277 bill. USD in 1996, what is the double value of the 1986 level
- in the world, there operate 44,000 TNCs with 280,000 abroad agencies
- in 1996, 65 countries (55 developing economies – DeE) eased the foreign investments
- the victorious campaign of the western values and the American life-style as a sign of the new era of convergence, when the traditional parting differences are being lost.

According to this approach, there is reached the *concentration* of key services and production in the advanced economies (AdE) centres. The branches of the above-average development rate have their world cen-

tres, such as London, Tokyo or New York. As an opposite of globalisation, there is pushing through the space concentration, which is marked by closer ties to certain places. Thus, globalisation is connected to the concentration to the *big urban complexes*, because the control of a city (as the economic power concentration) means the control of power. This is concentrated in the hands of persons owning financial resources and top technologies.

Complexity means the presence of many intertwined parts – be it the developed orderly structure or a badly interconnected structure with friction planes.

Globalised world is the whole with many levels and it is formed in the frame of the already existing complex social, economic and politic connections. Many dimensions of *convergence and divergence* exist there simultaneously. We speak about *global localisation* – globalisation: “Think global, act local”. The wider the action field, the more complex are the processes going on there. The question remains, whether the result will be the new rewarding pluralism or sharpening of the conflicts and non-equalities and thus new world chaos.

Powers of the globalisation process are understood namely as an economic phenomenon, but sociology understands globalisation also as a cultural (hegemonic) process, notwithstanding (or just because) for its complexity. Globalisation is considered in its widest sense as the form of process institutionalisation in two strata, which includes generalisation of the differentiated and differentiation of the general (Robertson 1992).

Still more there is challenged the notion of *territory* as the physical and psychological space of the state, economy and society, because the change of the human life structure around the complex alleged areas of the post-modern world is growing (Kofmann 1996).

In politology and international relations, thus is connected with desisting from *states* as the main agent. Globalisation thus does not lay only in the measuring of the enterprise forms or *social composition* convergence. Its feature is evoking doubts about the meaning of certain notions (for example state). Spreading of the discussion in it changes in advance the ideas and perceiving of the phenomenon. Thus, it creates the strategy and tactics, which can afterwards change the *composition of the phenomenon itself*. After the destruction of old axioms, there follows selection of paradigms. Just there globalisation forms still better conditions for discussion.

The basic news of globalisation is that it contradicts in political sciences and international relations the traditional concepts based at least since the year 1648 on the differentiation of the *internal and international* area. The formal and legal setting of the international area was based on agreement among supreme states and the international law was formed by comparison, convergence and overlapping of the internal law systems and decision process, on which it is based till now (Hirst, Thomson 1995).

International system was thus described as self-aiding, when it originated from the historical mixture of the vol-

untary associating of states. On one side, it sustains the ability to avoid forcible confrontations and to prevent their spreading and, on the other side, the ability to redistribute the different resources distribution among states. The system is *archaic on the international level* (kept together by the systematic mutual influence of similar units), but *hierarchical on the internal level* (obligatory institutional rules and in-built social relationships among authorities, the internal policy issues from the authoritative allocation of values).

However, globalisation is a totally different concept. It issues from the beginning from *intertwining of the internal and international policy*. The complex social, economic and political processes are overlapping, interlacing and form the limits of world policy. The concepts of state and nation are time-tied, anticipate social creation formed under global conditions of the period of starting capitalism. The existence of manifold stable points of balance means, that an individual and common action realised through the existing system of personal and political relationships decided, which of the possibilities became the reality. Fixation of the given institutional form excluded other possibilities. State/nation was the historical creation, in which the *chance results had stiffened into the perpetual institutional formation both internally and internationally*.

It is necessary, however, to differentiate the conception of the *interdependence paradigm*, which is, in the theory of international relationships, the political and economic interdependence of the states without regard to the internal sensibility towards occurrences in other states. The interdependence theory is thus still the international theory. Therefore, there is sometimes preferred the term internalisation before the term globalisation. The complex interdependence defines the traditional (state centralism) approach in two ways:

- 1) Interdependence leads to the *internalisation of the internal policy forming* in the frame of states and among them. For example, economic policy is still more influenced by what happens elsewhere (world interest rate convergence, world trade growth and FDI). The sensibility and vulnerability increased by the end of 20. Century owing to the economic, technological and cultural changes, but the main social and political action field sustains its traditional state centrist form. Notwithstanding the business globalisation, there still exist the nationally social structures, ideologies (nationalism) and political institutions.
- 2) The international political action field origins by interaction of the relevant states in dependence to their relative position from the point of power. States, as reasonable units are, in this still more dependant world, dragged into the process of building international organisations or regimes to the detriment of their national interests. The complex (namely economic) interdepen-

dence creates the models of the common acts of states and among them in the international system, what leads to creating of the formal and informal structures and institutions, which can become self-governing on the international level. Interdependence then sometimes leads to the *new multi-lateralism* based rather on the social and economic views of behaviour than on the legal or constitutional structures of the idealist type. The theoretical directions of international relationships – realism and institutionalism – are no more contradictory in the interdependent world; it is only the matter of a new synthesis. The state has to solve still more complex states in harmonisation of the national and international approaches. The traditional difference between the national and international analysis level is dissolving, but without the loss of importance (Keohane, Milner 1996).

The core of the interdependence theory then lays in the impact on two levels. On the opposite, the globalisation theory is centred at different complexity levels omitted by interdependence. Interdependence is thus unable to create a viable alternative paradigm to the political science and international relationships.

Globalisation regards not only the impact of the mutual economic dependence on the internal political system and the mutual influence of states, but it also re-creates the content of the political (social) science as a whole, so as to enlighten the historical power of states and the formation of the present changing world system. Therefore, it regards the change in understanding the system as such as well as the change of state itself in the frame of the system mentioned.

This double re-orientation is subject to criticism in some works. Nevertheless, it is necessary to add, that globalisation does not mean the world without borders. This mistaken idea issues from the postulate, that the financial markets unification, the continuing growth of world trade and FDI as well as the leading position of TNC in production³ has made the world the one market for all aims and intentions. The defendants of this postulate do not agree, however, in the fact whether such a world is really competitive or rather monopolistic.

The *contradiction of globalisation* or the shift of the decisive economic, social and political activities into the global measure is, besides forming one big economy or policy, also the division, fission and multiplication. *Divergence and convergence* are two sides of the same coin. This lack of the natural simplicity has also its disadvantages – the basic misunderstanding and distortion. Globalisation is not the only discussion, but the proved concept causing growth of several different, mutually interconnected discussions. The importance of globalisation in its different forms will surely increase, as the drawn trends will become clear.

³ Multinational enterprises (MNEs) are the mere enlargement of the enterprises rooted in the national economic, social and political structure of their home country, while in trans-national corporations (TNCs) the production and management structures, employees, finances etc. reach over the border and nationalities, they lose their roots and feet.

The strength of globalisation as a process and discussion (paradigm) lays in *complexity*. It will show, whether the powers of convergence will create a complex, stable, multiple world based on liberal capitalism and liberal democracy or whether the powers of divergence and inequality will create a less stable world.

The vision of unstable world reaches from the apocalyptic coming anarchy through the division of the world into the peace zones and turmoil zones (Singer, Wildavsky 1993) as far as to the continuing perpetual chaos (Minc 1993). The future depends on the acceptance of important political decisions. The complex globalisation theory describes the contents, and perhaps even solutions.

Globalisation is, by its nature, *complex and various* at least in three different directions (even if interconnected) – social, economic and political.

BASIC CONCEPTS

World economy is a higher economic complex, an economic organism formed by connection of individual countries and their national economics as individual economic subjects, which are influencing each other and are more or less mutually dependant in their development. Economic ties of their reproduction processes form the basis, on which the world economy origins and develops from the national economies. These relationships among national economies are called *international economic relationships* (Selected Chapters... 1993). International economic relationships include international trade (flows of commodities and services) and the flow of production factors (capital, labour and information).

The process of interconnecting, deepening and enlarging of the international economic relationships from the point of view of the individual national economy is called *internationalisation*. In market economy, this process goes on quite without restraint and is influenced by the scientific and technological development. Utilisation of modern means of the quick and mass transport of people and commodities, information transfer and spreading of the scientific knowledge results affords enormous possibilities for the development of all forms of the economic life internationalisation.

It is possible to distinguish different *subjects of international economic relationships*: the subjects on the individual, national and international level, where the transfer from one level to the higher level is generally given by limitation of the external independence of the lower subject by the subject of higher order.

From point of view of influencing the world economy development, we can distinguish (Chvojka 1991):

- subjects of the macro-economic type, for example tariff union, integration or state
- subjects of the micro-economic type, for example TNCs (including supranational banks), multinational enterprises, enterprises with international communication
- governmental and non-governmental organisations, for example World Bank (WB), World Trade Organisation

(WTO), International Monetary Fund (IMF) etc.

The forms of international economic relationships are

- flows of commodities
- services
- capital
- people
- knowledge and know-how.

The *contribution* of international economic relationships does not consist above all of the immediate profit of the two trading partners or sectors, but in increasing the level of the international labour efficiency conditioned by structural conditions and their exchange.

The aim is the optimal *entering into the international division of labour*, which lays in forming of the rational and efficient distribution system in the frame of world economy. It is the decisive element of the individual countries specialisation at the production of certain commodities and services, which the countries consequently exchange, with the aim of consume. International division of labour, considered as a certain production structure in the individual national economies (and thus at the same time understood in the world economy as the mutual relationship of these national internal structures), forms the development basis of the international commodity exchange as well as of the other perpetual and systematic ties among countries, i.e. namely of international economic relationships. Therefore, international division of labour is not only the sine qua non of the economic and social development and labour productivity growth, but also of the rational functioning of economy as such.

On the other side, international economic relationships in themselves lead to *deepening and certain forming of international division of labour*, since they evoke connecting of the individual national economies into the system of international division of labour by the kind of impulses for the structural changes they are bringing from the higher complex of world economy. Through the negative impact of international division of labour, it is tied in the dialectic way to the development of international economic relationships, which, together with international division of labour, literally embodies the teaching on two sides of the coin (World Economy 1994).

Acting of market powers and voluntards aid the growth of international division of labour (specialisation according to comparative advantages and effective allocation of production factors), what enlarges the market space.

International economic relationships, consisting of and functioning on the structural basis of international division of labour, are in the global the uniting element, which forms the higher organic complex, the present world economy, from the individual national (and in the further stages also supranational) subjects.

For the history of the internationalisation process, there is typical the different *evaluation approach to the contribution level of international division of labour* and taking part in that, which lays in the difference of putting stress on the world or national view as the primary one. The driving power and goal of the relevant pro-

cesses of incorporation of national complexes into world economy is then always acquiring of the relevant advantages. The views to these problems have differed through the historical development of theoretical concepts of international division of labour and international economic relationships.

The core of all these theories thus oscillates between incorporation into international division of labour or focusing on the own economy. Shift of the stress on one or the other of the points of view is influenced considerably by the development of basic economic reality, world agriculture and the bigger or smaller difficulties or advantages issuing from that for the individual national complexes, just as a consequence or the level of their incorporation. *Protectionism* diminishes the contributions of international economic relationships. It is not only the extremes (protectionism x liberalism), but always something in between – according to the prevalent approach. Global international trade and production factors liberalisation manifests in the individual spheres as *liberalisation* leading to the new world economy subjects origination.

However, world economy forms a united, even if internally contradictory, whole connected by the still developing international relations. Therefore, any theory of improvement has to issue from the general, and not partial, principles. This is what the *theory of global mutual interdependence of world economy* has attempted. This approach is based on learning that no sub-system in the interdependent global world economy can develop perpetually to the detriment of other sub-systems. The reasonableness of international division of labour has to be therefore evaluated in the long run and in the end by the fact, whether it supports or, on the contrary, weakens this objective of forming and more effective functioning of this globally interconnected world economy.

This concept was not accepted the developing countries and that labeled the origin of the problem *North and South*. These problems were also the point of interest of the international U.N. committee in the years 1977–1979 chaired by Willy Brandt, which reacted to that by the report *North-South: Program for Survival* in 1980, and which also reacted three years later to the unwillingness of rich countries to accept the solution proposed by the report *Common Crisis North-South: Co-operation for Recovery*. On the other side, advanced economies (Ade) criticised the approach of developing countries (DeE) for their non-interdependent approach and labelled then as the originators of the interdependence crisis (oil crisis).

At the beginning of the 80ties, when the internationalisation process was strengthened and the homogenisation impact of the scientific and technological development on world economy was still more obvious, the theoretic concept of global interdependence has begun to be commonly accepted. Their steps forward the endeavour to *strengthening of interdependence ties* through orientation of DeE on export sectors and economic relationship development.

Of late, there are strengthened in the world economy theory namely the views and directions evaluation its reasonability and efficiency not from the national or group points of view, but from the supranational and still more world aspects. Namely, the impact of external economic environment on the individual national economies is growing in consequence of the growing economic life internalisation, and thus practically no rational economic decision-making on the national level can omit the development abroad. External economic environment has the greatest impact namely on the relatively economically advanced social complexes of smaller economic size, which are much more interconnected to the international economic processes (including CR).

The global character of the individual countries economic interdependence and the global process of the world economy internationalisation bring about also a number of problems marked as the global problems of world economy.

It is possible to distinguish among *different forms of interdependence*, namely:

- interdependence regarding raw materials
- fuels and energy
- technological (including know-how and human potential)
- food
- trade etc.

As an example of interdependence abuse, it is possible to enlist forming of numerous cartels namely by developing countries, be they oil producers associated in the OPEC (oil crises), or the producers of tin, wolfram, copper, bauxite, iron ore, or exporters of coffee, cocoa beans or natural rubber. Their goal of course is to influence world market prices. A special case of interdependence is the superficially created interdependence in the former socialist block, which the relevant states are now paying dearly for.

Interdependence can be of the symmetric or asymmetric form. The *symmetric form* represents the mutual interdependence, while the *asymmetric* one is based on the one-sided dependence. The thesis on the constant growth of developing countries asymmetric dependence makes their position in the international division of labour somewhat fatal. On the contrary, advanced countries had adapted and became less dependent on DeE.

The global interdependence theoretical concept is based on the objective reality of the still more intensive process of economic life. Internationalization overreaching national borders. Besides growing internalisation, also international economic relationships among the world economy subjects are strengthening and interdependence growths.

The *reasons of internationalisation processes* are namely (Soukupová 1982):

- existence of the *small-scale economies*, which realise most of their GDP through export
- liberalisation (causing incorporation of economy into international division of labour – even such an independent economy as U.S. undergoes the process)

- increasing commodity flows lead to the international trade growth (the growth rate of international trade exceeds the world GDP growth rate), which has a 1/5 share in the international financial transactions volume
- increasing capital flows:
 - the question of capital valorisation:
 - capital is better valorised in the countries with cheap production factors (DeE)
 - capital is better valorised in countries with *higher interest rate* (even U.S. has attracted investors this way)
 - increase of the held assets security in the conditions of flexible exchange rate by the financial means portfolio diversification
 - speculation flows – the effort to reach the highest capital returns by utilisation of the present interest rate differences and estimates of the exchange rate development
 - euro-currencies – the effort to keep financial resources in the given currency outside the territory of the emitting country
 - offshore banking – the effort of banks to avoid the home bank regulation
 - capital surplus in a country and therefore also a higher competition (U.S.), on the other side, there exists in some countries also lack of capital, either caused historically or by indebteding (DeE and transition economies – TrE)
- development of TNC
- demanding production, which enforces high capital insurance:
 - ecological – export into countries with undeveloped legislation (DeE, but also TrE)
 - capital – capital is concentrated from several countries into a single production so as to decrease total costs and gets means for the expensive scientific and technological knowledge and research
- interdependence
 - with regard to raw materials, fuels and energies, where the raw materials and fuels import should be balanced by the relevant export (Japan) or where capital (investments) is exported into the resource areas, what leads to the capital participation in mining and the country thus ensures long-term import of these commodities (namely capital export to DeEs)
 - technological, caused by insufficient resources for scientific and technological research not only in the economically weaker ADEs, but also above all in DeE, where the chance of building the independent scientific and technological research is very low, the tendency being rather that of so-called moving of brains. Export of patents, licences and technologies represents a substantial element of the production internalisation. Profit rate from this trade is 300–600%.

The *strongest* internationalisation processes are going on in advanced economies (ADE), weaker ones exist in transition economies (TrE) and developing countries (DeE). Generally, it can be concluded, that higher level of economic advancement is characterised by higher level of internalisation (not valid for example for U.S., however).

CONCLUSIONS

Globalisation is a *highly complex* process; therefore it was not possible to cover the whole problem. The effort then was to draw just the basic question connected to globalisation, be it its essence itself, the main driving powers and manifestations in world economy generally.

Globalisation was evoked by the technological, social and cultural changes and has thus decreased the economic distances among countries considerably. Improvement of *transport and communication technologies* lowered transport costs of commodities, people and information. The *traditional governmental policies* restricting the trans-border transactions were mitigated or removed, in the consequence of which international trade and foreign direct investments (FDI) increased. Globalisation is changing the world economy properties and influences the basis of the successful economic development approaches, what in turn increases the possibilities of private individuals and enterprises, but decreases the possibilities of politicians in the traditional sphere. Therefore, globalisation means that markets, investments and inter-enterprise relationships are still less limited by national borders. All this owing to the trans-national companies (TNC), FDI, common enterprises, common research and development or technological licences.

The *contradiction of globalisation* or of the shift of the decisive economic, social and political activities into the global measure is, besides forming one big economy or policy, also the division, fission and multiplication. Divergence and convergence are two sides of the same coin. This lack of the natural simplicity has also its disadvantages - the basic *misunderstanding and distortion* it brings about.

The globalisation speed increases namely with the speed of *scientific and technological development*. Under the impact of its tempestuous development, there was reached not only a pronounced development of the economic life internalisation, but also of the innovation dynamism in the technological sense.

Globalisation is supported by liberalisation and vice versa, globalisation speeds liberalisation. The key *liberalisation* point in all countries was increasing of the external openness. Liberalisation has enlarged the efficient economic space and backed the globalisation process. Producers and investors behave still more, as if world economy was just one market with the regional and national sub-areas, rather than the grouping of national economies connected by trade and investment flows. However, the *globalisation level* of trade, FDI, international finances and labour mobility is different.

The phenomenon of globalisation leads to *increasing the mutual interdependence* of national economies as well as of the mutually connected economic activities in the sphere of trade, investments, money and finances. The ability of national policies to reach national goals through the means available is *decreasing*, while the abroad policies and development *increase their impact* on economic development.

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Arrived on 15. 12. 2000

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Economic-law connections of competitiveness¹

Ekonomicko právní souvislosti konkurenceschopnosti

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Abstract: Competitiveness can be expressed as an ability of a producer or service provider enforce its products in a competition for a customers favour in comparison with other participants of a market. In most cases it is understood as a competitiveness on the supply side. Further it can regard competitiveness on the side of demand. Subjects can compete also for favour of state authorities. For producers and service providers it is dealt in a various rate according to their impact with the ability to be a success either on internal market or on foreign markets. Competitiveness has its own production, economic and law sides. Every entrepreneurial subject can influence more or less by its own decisions the production and economic sides and adapt itself that way to the market situation. Subjects behaviour on the market has its own rules which warrant principles of equal conditions in economic competition among them on the market. This is adjusted by many law regulations. The presented contribution discourses about mutual connections of the mentioned facts. The contribution gathers from solving of the project MSM 411100013 "Efficient integration of the Czech agrarian sector in frame of European agrarian structures – a presumption of sustainable development".

Key words: competitiveness, supply, market, economic competition, entrepreneurial subject

Abstrakt: Konkurenceschopnost lze obecně vyjádřit jako schopnost výrobce či poskytovatele služeb prosadit se svými produkty v soutěži o přízeň zákazníků ve srovnání s ostatními účastníky trhu. Ve většině případů se jedná o konkurenceschopnost na straně nabídky. Dále se může jednat o konkurenceschopnost na straně poptávky. Subjekty mohou soutěžit i o přízeň státních orgánů. Pro výrobce a poskytovatele služeb se bude v různé míře dle jejich působení jednat o schopnost uspět buď na vnitřním trhu či na trzích zahraničních. Konkurenceschopnost má svoji stránku produkční, ekonomickou i právní. Oblasti produkční a ekonomickou může každý podnikatelský subjekt více méně ovlivňovat svými vlastními rozhodnutími a tím se přizpůsobovat situace na trhu. Chování subjektů na trhu musí mít svá pravidla, která zaručují principy rovných podmínek v hospodářské soutěži mezi nimi na trhu. To je upravováno řadou právních předpisů. O vzájemných souvislostech uvedených skutečností pojednává předložený příspěvek. Příspěvek vychází z řešení projektu MSM 411100013 „Efektivní integrace českého agrárního sektoru v rámci evropských agrárních struktur – předpoklad trvale udržitelného rozvoje“.

Klíčová slova: konkurenceschopnost, nabídka, trh, hospodářská soutěž, podnikatelský subjekt

INTRODUCTION

One of the main characters of market economy is competition between subjects in the market. This competition has its phenomenon forms, it proceeds in certain conditions in a concrete market, and finally results of this competition have a significant influence on market situation and on the real market participants.

Competitiveness can be generally marked as an ability of a producer or a service provider to enforce its products in the competition for a consumers' favour in comparison with other market participant. In most cases it regards competitiveness on the supply side. Less is said about competitiveness on the demand side, though it is a part of full-value market mechanism functioning. Last but not least, market participants can compete for favour

of state bodies and supra-national institution for a support to improve their competitiveness.

The contribution is worked as a part of the institutional research of the Faculty of Economic and Management, Czech University of Agriculture in Prague.

AIMS AND METHODS

The aim of the contribution is a discourse about economic-law connections of competitiveness generally and in relation to the agrarian sector. An effort is to determine and characterise chosen factors which have an obvious coherence with competitiveness.

Agrarian sector and mainly its primary part (so called basic industry) has in its functioning, in comparison with

¹The contribution presented at the conference Agrarian Perspectives IX – Globalisation and Competitiveness (CUA Prague, September 2000)

other branches of national economy, many important specifics which have immediate relation to competitiveness of subjects functioning as entrepreneurs in this part of the sector. The complex given problems are an object of researches both in frame of domestic criterion and in frame of European and worldwide comparisons.

Just in basic industry, there is a big discussion and reached results are being compared among businesses and among states. To evaluate an efficiency of the whole agrarian sector functioning, the ability to be successful in a market with final products in consumer in area of quality, acceptable prices, place and time adaptability and other consumers' demands is decisive.

RESULTS

Analysis of competitiveness problems

Competitiveness measuring in agrarian sector is in a decisive rate based on the commodity principle. As a commodity, we usually understand the part of production in agrarian sector which is an object of trade no matter what form it has from a view-point of usability.

Competitiveness in agrarian sector has many sides: production, economic and legal. All these characters, however, blend together in all phases through which any product in agrarian sector passes.

The production side of competitiveness in a basic industry lies in the area of convenience or inconvenience of natural conditions for cultivation of certain plants or raising of certain kinds of animals. Further, it is connected to using existing production conditions in production abilities of organisms. As an amplifying factor of this relation, there is seen a qualified people's activity in form of suitable technological procedures formation, use of first-rate materials and technology in all phases of production processes.

In evaluation of level in production area, it is possible to use a method of production function as one of evaluation methods. In case of keeping conditions of comparability, we can judge a level of reached intensity in a dynamic conception. Data about reached results of production expressed in physical units are often used as one of the bases to evaluate competitiveness of agricultural businesses at a regional, nation-wide and international level. Difficulties in comparison are caused above all by various production conditions and also a different quality of production. Typical signposts here are obtained per hectare yields, efficiency of breeding animals, an extent of used production factors an so on.

The economic side of competitiveness includes problems of economic efficiency in frame of the whole product vertical line of a commodity in advanced-production, production, processing, distributive phases to the final sale to a consumer.

A significant part of this side of competitiveness is cost analysis at all above mentioned degrees. It deals mainly with a presupposed extent of costs for a capacity unit

acquiring and a necessary height of operation expenses for production. Further it is the structure of expounded costs and possibilities of their covering according to various sources. Last but not least, also the estimation of presumed tendencies in cost development to the height of obtained production is important. An influence of fixed costs regarding to the degree of production capacity use proves itself here very significantly.

The cost competitiveness is very important for particular entrepreneurial subjects according to relevant vertical degrees and also for the vertical as a whole from the viewpoint of total social costs.

A significant part of economic side of the investigated phenomenon is the area of production market, position of sellers and buyers in the market and their mutual relations, time and space market organisation for its participants, price elasticity of products for consumers and producers, a level and a way of product promotion, and many other influences in the given area, which influence the process of competitiveness.

Legal connections of competitiveness lie first of all in the necessity that principles of equal conditions in economic competition of subjects were promoted and misuse of dominant or monopolistic position of producer, a distributor or a seller was prevented by a relevant law adjustment. Economic competition forces participants to increase production efficiency, to improve their production and does not allow incompetent increase of prices of the offered products.

Therefore a policy of economic competition is one of the basic policies of the European Union with security of the principle of the unified internal market of the EU.

In frame of open Czech economy, also a wide law adjustment is valid which arranges conditions of economic competition. It deals with significant regulations of Trade Law and further of a separate law about economic competition protection. Trade Law in the fifth head adjusts the law to participate in economic competition and its condition, a force of regulations of competition law in relation to abroad, and an extent of protection provided by them. Considering the content, our law adjustment gathers already from the European law, mainly from German and the law of European Communities.

The law of economic competition protection is focused against competitive behaviour, which threatens the substance of the economic competition – the equality of participants' conditions, and it affects such acting regardless of the fact whether it was realised inland or abroad, if it effects in domestic market.

Just in the agrarian sector there are situations when position of subjects is unequal. It is usually a relation of basic industry subjects to product consumers. Also comments of businesses of food industry on behaviour of trade chains from the viewpoint of condition and prices for supplied products are frequent. These unequal relations are called economic dependency and are not legally solved in our conditions. A certain protection from the farmers side is state-supported foundation of market cooperatives for defending their interests.

DISCUSSION

It is efficient to analyse competitiveness as a dynamic process and to try measuring it at different levels of product verticals, verticals as a whole, at level of entrepreneurial subjects and the whole agrarian sector. At each level it is possible to use various signposts which have a correlation to the given level and have also necessary predicative ability.

Often in evaluation, signposts of live labour productivity and productivity of production factors are used as important presumption to reach competitiveness.

As a complex approach in evaluation of competitiveness in a commodity principle, it is possible to indicate a use of the method "Policy Analysis Matrix" (PAM). With the help of, it influence of domestic agrarian policy is evaluated, both the level of protection of domestic market and a level of support of domestic producers with various forms ("Green Report 1998"). From the matrix, a system of signposts is derived which e.g. informs about a level of nominal or efficient commodity protection, further about the adaptation of private and economic costs and so on.

Agrarian policy of particular states or the whole communities can significantly influence by its action the competitiveness of producers and final products. It

regards the extent and way of support of domestic market participants and on the other hand a determination of height and extent of tariff and non-tariff tools in frame of foreign trade.

In frame of the OECD countries an unified methodology is used to evaluate the agriculture policy to secure comparability. Since 1998 it has changed, instead of the hither to used equivalents of production and consumer subsidies new signposts are used. These signposts are marked as estimations of production, general services, consumer and total subsidies. Criteria of purpose and subsidy aims were omitted and a new criterion – the way of subsidy realisation was introduced.

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Arrived on 15th December 2000

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Formation of agriculture position in globalisation process¹

Formování pozice zemědělství v procesu globalizace

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Abstract: Dynamic processes of globalisation leading to the planetary dimensions of trade, finances, enterprising and information flows are accompanied with the "localisation" processes. These two contradictory and at the same time closely linked processes differentiate considerably the existential conditions of the whole territories and populations. There exists the contradiction between individual decision-making, expressed by the market, and collective decision – making in policy. There exists global economics without global society. The market influence determines social and political events. Opportunities and results of globalisation are divided unfairly and unequally. Forming of the agriculture position in the frame of globalisation process represents its integral and unavoidable part. The future of agriculture will be the result of the long – term and global aspects of the whole economic and society development. Free trade is considered as one of the main globalisation drives. The contribution gathers from solving of the project MSM 411100013 "Efficient integration of the Czech agrarian sector in frame of European agrarian structures – a presumption of sustainable development".

Key words: position of agriculture, globalisation, WTO, sustainable development

Abstrakt: Dynamické procesy globalizace vedoucí k planetárním dimenzím obchodu, financí, podnikání a informačních toků jsou doprovázeny procesy „lokalizace“. Tyto dva protikladné a současně úzce propojené procesy výrazně diferencují existenční podmínky celých teritorií a populací. Existuje protiklad mezi individuálním rozhodováním vyjádřeným trhem a kolektivním rozhodováním v politice. Existuje globální ekonomika bez globální společnosti. Vliv trhů je takový, že určuje sociální a politické dění. Příležitosti a výsledky globalizace jsou rozděleny nespravedlivě a nerovně. Formování pozice zemědělství v rámci globalizačního procesu představuje jeho integrální a neopominutelnou část. Budoucnost zemědělství bude výslednicí dlouhodobých a globálních aspektů rozvoje celé ekonomiky a společnosti. Volný obchod je považován za jeden z hlavních motorů globalizace. Příspěvek vychází z řešení projektu MSM 411100013 „Efektivní integrace českého agrárního sektoru v rámci evropských agrárních struktur – předpoklad trvale udržitelného rozvoje“.

Klíčová slova: pozice zemědělství, globalizace, WTO, trvale udržitelný rozvoj

Multilateral transformation of the basic dimensions of human civilisation development is at present well characterised by the term "time-space compression". From the viewpoint of causes and results of the phenomenon, it is possible to state that globalisation processes lack a generally presupposed or expected unity of effects. Use of time and space is considerably different and at the same time it influences further deepening of the existing differentiation in the global scale.

Dynamic processes leading to planetary dimensions of trade, finances, enterprise and information flows are accompanied by processes of "localisation", i.e. an attachment to a certain territory. These two contradictory and at the same time tightly connected processes significantly differentiate existential conditions of whole territories and also their parts. Therefore, an integral part of the globalisation process is the progressive space segregation and separation. Heterogeneous dimensions of the present world polarisation have its base in the character

(freedom or finitude) of the capital, labour, goods and services movement. The mentioned economic processes participate, in interaction with political environment, in formation of so called global problems.

NEW SITUATION

A successful solving of the problems of mankind, which are connected with the mutual dependence of the particular world countries, requires forming of a new international ethics. New approaches are formed and values rising from the ethics of world linked with global problem of environment of life, from the ethics of development in linkage to unbearable differences between the rich and the poor, from the ethics of solidarity based on the necessity of co-operation among all people as a condition of survival. It is necessary to add that also the time factor has its ethical value because the delayed solution

¹The contribution presented at the conference Agrarian Perspectives IX – Globalisation and Competitiveness (CUA Prague, September 2000)

of global problems represents irreversible changes with fundamental consequences. A significant contribution with regard to looking for human values compatible with the sustainable way of life is formed by the works of Vavroušek who insisted on the inevitable change of the Euro-American civilisation value attitudes in relation of the man to nature, society, the sense of own life, freedom and responsibility, to the level of human knowledge, to future generations, to common matters etc.

This all creates a complete frame for the phenomenon of the beginning millenium, e.g. globalisation influencing in a fundamental way the events of the whole Earth. The strategy of human civilisation development will be determined by the course of the globalisation process. Forming of the position of agriculture in this process is its integral and necessary part. A wider economic view of the role of agriculture in the global economy and incidental processes averts a big danger for the successful strategy of human civilisation development.

METHODICAL RESOURCES

The initial methodological principle is the concept of agriculture as an organic part of economy, e.g. also of the globalised economics, with an emphasis of determining influences of structural development and differential effects in the global environment. The position of agriculture in the process of globalisation will be formed, in a decisive way, by globalisation processes, effects of that are often felt as inconsistent. The aim is, on the base of the methodological resource of crisis aspects of globalisation, to characterise qualitative trends in the position of agriculture regarding economic, non-production, and institutional and other aspects.

CRITICAL CONNECTIONS OF GLOBALISATION

An integral part of globalisation process is the proceeding space segregation, separation and exclusion. Multiplex dimensions of the present polarisation find their expression in freedom of movement (mobility) which gradually becomes a main factor of stratification.

An outstanding critic of the insufficient institutional security of economy globalisation, including relevant decisive mechanisms, is among other one of the successful actors of the world of global financial market, G. Soros.

Global economy is characterised by free trade of commodities, services and also capital. Global financial markets have a big influence on economic conditions. Capital, in comparison with other factors, is more mobile. In spite of the belief in free market prevalence, i.e. market fundamentalism, a principle of a certain regulation is accepted and applied on the national scale (Central Bank, Anti-Monopoly Office etc.). In the world scale, the rele-

vant financial authorities are missing. Development of global economy has not been hitherto accompanied by the development of global society. Global financial markets are beyond the control of international institutions. Manifestations of the MMF were not successful in the last financial crises.

There is a contradiction between the individual decision expressed by the market and the collective decision expressed through policy. We have a global economy without the existence of global society. The world has entered the period of a deep unbalance. There are almost no institutions for the formation of rules and norms at the international level, nor any mechanism of collective decision for the global economy.

There are discussions about strengthening of the planet executive powers (MMF, WB, OECD, WTO), i.e. about an informal world rule which is neither elected nor controlled. It has no contra-balance in the parliament, political parties, justice, mass media etc. The influence of markets is so significant that it determines social and political events. A main driving power of globalisation is the profit and market economy efficiency. Opportunities and results of globalisation are divided in the unjust and unequal way. Power and wealth is concentrated in the hands of a certain group of persons, countries or supra-national societies. Free trade is still an important tool of the economic efficiency growth. The hypothesis of the decrease of differences in disparity of social groups and countries has not been confirmed, on the contrary, differences among them have deepened.

FORMING OF THE POSITION OF AGRICULTURE

Agriculture, which represented practically all along human history a decisive economic activity for the majority of population, has lost its superiority (over GDP creation, over number of jobs) in one country after another during the life-time of only one generation. However, this fact cannot diminish the role of agriculture from the view-point of food production, security of environment, landscape formation, functions with regard to the infrastructure etc.

The future of agriculture cannot be separated from the long-term and global aspects of the development of the whole economy and society. Basic determining factors of the agriculture development are connected with the existence of growing economic dis-proportions among the developed market economies, transforming economies and developing economies of the current world. Regardless the pronounced reducing of the share of agriculture in GDP creation or of labour, it will be necessary already to re-value the role of agriculture in solving of the global world problems and its sustainable development, and that already in the medium-term horizon (Table 1 and 2).

The WTO agenda is substantially complicated and extensive. There are differentiated two basic areas – the

Table 1. Development of the world economics in the context with the position of agriculture (1991–1997)

Share of agriculture on GDP (%)	Number of countries		GNP				Population				GNP per 1 inh.	
			mld USD		%		mil. inhab.		%		in USD	
			1991	1997	1991	1997	1991	1997	1991	1997	1991	1997
More than 30	57	42	571	173	3	1	1 603	576	30	10	360	300
20–29	33	25	971	738	4	2	1 651	1 504	31	26	590	490
10–19	39	38	1 890	2 448	9	8	951	2 007	18	34	1 990	1 220
6–9	20	23	1 214	2 681	5	9	237	549	4	9	5 110	4 880
to 6	41	41	16 877	23 451	78	78	879	1 024	16	18	19 200	22 900
Data missing	10	41	149	633	1	2	52	159	1	3	2 860	3 970
Total (average)	200	210	21 671	30 124	100	100	5 373	5 819	100	100	4 030	5 180

Table 2. Characteristics of the position of agriculture in the developed and developing world from the viewpoint of resources and results

1995	Indicator	Developing countries	Mature states	Total of the world
Population in total	%	80 (75)	20 (25)	100% = 5.7 bill. (4.4)
Economically active in agriculture	%	96.6	3.4	100% = 1.3 bill.
Share of agriculture in economically active	%	58	8	48%
Area of arable land	%	58	42	100% = 1.35 bill. ha
Area of arable land per 1 inhabitant	hectares	0.13	0.5	0.24
Population per 1 farmer	heads	3.6 (3.3)	15.2 (15.7)	4.4 (4.2)
Total cereal production	%	62 (50)	38 (50)	100% = 1896 mil.t (1549)
Total meat production	%	54 (35)	46 (65)	100% = 207 mil.t (136)
Total milk production	%	43 (23)	57 (77)	100% = 564 bill. t (466)
Agriculture contribution to GDP production	%	28	2	4

Source: FAO Production Yearbook 1996, The World Bank Atlas 1999, personal calculation

Note: Data in brackets characterise situation in the year 1980

so-called fixed agenda (mandate negotiations and revision or deepening of the existing agreements) and new topics. In the negotiation itself, three basic power blocs are formed – the USA, the EU and developing countries (DCs).

Tariffs, services and agriculture above all belong among the sensitive problems and are at the same time the topic of the mandate negotiations. A basic controversial problem in agriculture is the EU concept of multi-functionality (The European Agriculture Model). The EU (and Japan) position issues from the growing importance of non-production and non-economic functions of agriculture as is e.g. landscape protection, social stability, sustainable development, strategic self-sufficiency and so on. DCs, the USA and the so called Cairns group (important agrarian exporters) are interested in the approach to the European and Japanese market with the simultaneous decrease or elimination of subsidies. For the DCs, agrarian commodities are usually the main export item and the US agriculture is dependent on export more than other sectors.

Preserving of all three key actors positions and difficulties of the WTO negotiations in this area reflect the political power of agrarian structure in “highly industrialised” or “information” societies despite the fall of the relative importance of agriculture for the economy or employment of developed countries. The argument about biotechnologies and labelling, it means the application of the principle of preliminary caution in marking products on the base of GMO, presents a further problem which complicates then achievement of the trans-Atlantic consensus, it means a presumption for the success of the WTO negotiations. Among new topics, there belong building of the multilateral frame for management of global investments and global competition preferred by the EU and the support of electronic trade development (the USA).

Free trade is supposed to be one of the main globalisation drives. The WTO participates fundamentally in the implementation of free trade in the world scale and therefore it seems logical that the responsibility for wider consequences of globalisation is expected from this

institution. It corresponds with the request of the civil (world) public to include social and environmental dimensions of global economy into the WTO agenda.

Complex problems of world trade in the period of proceeding globalisation pose claims for the WTO function. Ineffectiveness of the WTO negotiations, decreasing legitimacy of economic liberalisation and growing discontent with the globalisation process demand a WTO reform towards frankness and greater communication. The present activities are perceived as a promotion of interests of a narrow group of managers and stock-holders of large and supranational companies to the prejudice of employees, environment and developing countries. This WTO reform should include mainly efficient and an adequate engagement of non-governmental and international organisations, real acceptance of sustainable development and a forward attitude towards DCs in forming more equal system of the international trade.

CONCLUSIONS

Attitudes perceiving the uncritical preferring of free trade ("market fundamentalism") as a big danger of the present time are strengthening, what is connected with overestimation of the possibilities of market mechanism, with disregarding of social, political and ethical dimensions of the society development and with oppression of the critical way of thinking. Global presumptions of favourable development of the civil society are restricted.

Development potential of the narrow economic criteria was exhausted in conditions of globalisation. Conservation of increasing and sustainable line of human civilisation development is based on multi-colinear approach, which connects economic approaches also with the value orientation on human development, on authority of social and environmental criteria etc.

Sustainable development has a global character. Approaches to solving the global problems are different in different parts of the world. On the example of environmental approaches, it is possible to show, that we can define European and American models. The European model is based above all on using normative tools and corresponding measures supported by subsidies from the corporate resources. Higher utilisation of economic tools and market powers together with higher directness of government programs is typical for the American model. It is necessary to note, that globalisation does not mean integration of the approaches to sustainable development, sustainable agriculture, forming of agricultural models or other numerous dimensions of human civilisation development.

The position of agriculture cannot be marginal in the global world of the 20th century also because almost half of the population is economically dependent on agriculture although its share in GDP is only 4%.

Permanent importance of the production function of agriculture for the whole population is accompanied by increasing and necessary role of the non-production functions.

Globalisation means a great challenge for economists, politicians and also all other citizens. The controversy between for poor and rich countries or social groups is very profound and serious. It is very important to orient the future research on complexity of the problem.

In the agrar sector, it is desirable, in condition of globalisation, to orient research primarily on these spheres:

- existence of problems in utilisation of the conventional economic theory for sustainable agriculture, namely on the global level,
- global processes will not be easy with regard to ecological and institutional differences of countries,
- effect of globalisation for poor and rich countries will be disparate in agriculture, economy, environment, social sphere etc.
- necessity of the analysis of oppressive problems of the poorest states from the point of view of agricultural systems, environment, social failures etc.
- enforcement of the meaning of individual, local and institutional defensibility for agriculture and environment,
- present global trends of trade liberalisation represent threat for sustainable development and also for the dignified existence of a number of developing countries.

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Arrived on 15th December 2000

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Competitiveness issues affecting agro-food supply chains in the Czech Republic in the light of EU accession negotiations¹

Faktory konkurenceschopnosti ovlivňující nabídku zemědělsko-potravinářských výrobků v České republice z pohledu vyjednávání o vstupu do EU

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Abstract: The paper provides a brief overview of selected concepts concerning competitiveness and based on theoretical framework developed by M. Porter describes competitiveness of the selected segment of the Czech agribusiness. Issues affecting competitiveness of supply chains are confronted with both short- and longer-term objectives formulated by EU and some recommendations are derived.

Key words: competitiveness, Czech Republic, agri-business, supply chain

Abstrakt: V příspěvku je uveden úpřehled některých přístupů ke konkurenceschopnosti a na základě teoretického přístupu M. Portera je popsána konkurenceschopnost vybraného segmentu českého agrobyznysu. Faktory ovlivňující konkurenceschopnost nabídky jsou konfrontovány s krátkodobými a střednědobými cíli Evropské unie a z této konfrontace jsou vyvozena některá doporučení.

Klíčová slova: konkurenceschopnost, Česká republika, agrobyznys, obchodní řetězec

COMPETITIVENESS – TOWARD AN OPERATIONAL CONCEPT

Since the days of David Ricardo, in the last century, economists have had a long tradition of using the concept of *Comparative Advantage* to explain and sometimes predict national product specialisations and trade flows. In the present century, further refinements were introduced with measures of *Revealed Comparative Advantage* being developed for example by Belassa from the 1960's using ex-post trade data. These measures were further refined to take account of transnational investment activities (not merely trade flows) and also to explain specialisations within product trade categories. Value Added measures were developed by other analysts.

Meanwhile, other scholars with a business school background were exploring competitiveness in the context of strategic decisions being made by individual enterprises. One of the more famous techniques is the growth share matrix devised during the 1970's by the Boston Consulting Group (BCG). The BCG technique is based on a 2x2 Matrix in which an enterprise (especially a large one) could classify its businesses or products according to whether they had (a) High or Low market

growth rate and (b) High or Low market share, thus leading to a basis for developing enterprise strategy.

Both traditions, coming from different starting points, were working towards analysing the competitive position of individual industries or sectors or branches of economic activity but they still lacked any commonly accepted overall intellectual framework within which they could both feel comfortable. Meanwhile the quest for such a framework went on!

Eventually, in 1990, Michael Porter's Book "The Competitive Advantage of Nations" appeared to provide the desired intellectual umbrella by the manner in which he sought to explain why particular industries became competitive in particular locations, with the aim of enabling firms and governments to choose better strategies and ensure better allocation of scarce national resources.

Porter analysed a large number of issues which he classified into the following six broad factors which interact with one another and which he presented visually in diamond-shaped figures, since then famous as "Porter diamonds"

– *Factor conditions* are human resources, physical resources, knowledge resources, capital resources and infrastructure. Specialised resources are often specific for an industry and important for its competitiveness.

¹The contribution presented at the conference *Agrarian Perspectives IX – Globalisation and Competitiveness* (CUA Prague, September 2000)

Specific resources can be created to compensate for factor disadvantages.

- *Demand conditions* in the home market can help companies create competitive advantage, when sophisticated home market buyers pressurise firms to innovate faster and to create more advanced products than those of competitors.
- *Related and supporting industries* can produce inputs, which are important for innovation and internationalisation. These industries provide cost-effective inputs, but they also participate in the upgrading process, thus stimulating other companies in the chain to innovate.
- *Firm strategy, structure and rivalry* constitute the fourth determinant of competitiveness. The way in which companies are created, set goals and are managed is important for success. But the presence of intense rivalry in the home base is also important; it creates pressure to innovate in order to upgrade competitiveness.
- *Government* can influence each of the above four determinants of competitiveness. Clearly government can influence the supply conditions of key production factors, demand conditions in the home market, and competition between firms. Government interventions can occur at local, regional, national and supranational level.
- *Chance* events are occurrences that are outside the control of a firm. They are important because they create discontinuities in which some gain competitive positions and some lose (Pitts and Lagnevik 1998)

Porter contends that it is the manner in which these 6 factors interact with one another which creates the different conditions in which innovation and improved competitiveness occurs. Porter had provided a broad umbrella under which dialogue among the different intellectual strands could occur, even among those who disagreed with his concepts. Not only had Porter provided a good idea but his timing was also good (unlike Copernicus!) Porter specified no methodology of analysis so several kinds of Porter studies proliferated and soon we were wondering whether Porter diamonds would last forever or be a passing phase!

Discussion of individual competitiveness studies in not appropriate for a plenary session today, those items being properly considered in the parallel sessions. I will merely refer to one key study compiled by team of economists and market analysts in six EU member states and edited by Traill and Pitts (1998). The Study – Competitiveness in the Food Industry – evaluated case studies of the Competitiveness of specific national food supply chains in six EU countries (e.g. dairying, horticulture, pigmeat, pasta, ecological foods) and reached the general conclusion that valuable insights were offered by Porter models and other subsequent developments during the 1990's. Specific conclusions were that

- In many cases, Co-operation among firms (rather than Competition) can be quite important, either, say, for export marketing or in building strong retailer-processor-farmer linkages along a supply chain.

- Government can often be a very active participant within the process – as a partner in helping all the participants in a particular supply chain to develop new relationships, to encourage pre-competitive research and innovation as well as to provide the stimulus for developing a culture of sustainable movement towards developing strong food chains, giving stable signals to their members.

Competition can thus move somewhat from being seen mainly among the firms *within* a chain towards a concept of competition *between* chains!

In the past decade or so, analysts have also distinguished three aspects to competitiveness:

- *Competitiveness Potential*: based on inputs, technology, productivity, etc.
- *Competitive Performance*: measuring how an industry/country has done relative to its rivals
- *Competitiveness Process*: the attitudes, management skills, marketing outlook and supply chain organisation necessary to convert Potential into Performance!!!

Partnerships between Government, the knowledge system and the enterprises in the chain are, in my view, powerful mechanisms to enhance Competitiveness, not only in building Competitiveness Potential, but especially by enhancing the quality and responsiveness of the Competitiveness Process so that Potential can be converted into Performance.

I wish to give strong support to the emphasis which most modern food analysts give to analysing individual food supply chains as a whole, not merely their component parts. This point has been very well expressed by Hubbs et al in their 1997 study of "The Transformation of the Agri-Food System in Central and Eastern Europe and the New Independent States":

"Reform of entire food supply chains remains the key element for the transition of agribusiness. In most other sectors, except energy, greater emphasis can be given to the problems faced at individual technically separable stages of production and distribution because breakdowns in the supply chain cause much less hardship. If skirts do not move efficiently through all of the stages of their supply chain, there is no real urgency to making them do so. The volumes, perishability and food security aspects of the agribusiness sector make reform of the supply chain as a unit a priority."

To this, I would merely add the comment that value added rewards generally arise from focusing on food and drink items which meet consumers real needs (e.g. the famous Czech brewing sector) rather than being merely confined to producing (and exporting) at the bulk, commodity end of the market which tends to provide the lowest long run margins. In increasingly open markets, this can apply as much to your own home market as to export markets.

Competitiveness is therefore a dynamic concept – well expressed in a 1991 Agriculture Canada study as follows:

"A competitive industry is one that possesses the sustained ability to profitably gain and maintain market share in domestic and for foreign markets"

The Czech Republic, in common with many other Central and Eastern European states, is currently in negotiation with the European Union on various aspects of accession to the union, the accession negotiation process having been formally launched on 31 March, 1998 and with progress now being made on many of the 31 chapters of the *acquis communautaire*. The negotiations on the agricultural chapter opened on 14 June, 2000 and many important issues will need to be negotiated there. I purpose to make some comments on relevant developments in the Czech Republic, as viewed from EU and OECD perspectives, obviously on a personal basis and with complete non-prejudice towards any body's present or future negotiating stance.

I am aware that under the terms of an FAO project, significant and innovative studies of Competitiveness of the Czech Agri-Food Sector in the context of EU Accession have been undertaken. It is worthwhile to note that the FAO-supported study has sought to integrate both the primary agricultural sector and food processing in its assessment of competitiveness. Recognising that competitive potential at one stage in the production and marketing chain may never be realised in practice if the competitive performance at other stages is poor, the study focuses on several Czech Agri-food supply chains as well as on horizontal issues affecting the links in the chains.

Building strong agri-food supply chains is not easy. Experiences in Ireland, for example, both in the years leading up to EU membership and during the early decades of membership, show that many attitudinal changes are involved as well as the education and learning experiences to enable decision makers in firms and in public agencies to develop the skills and judgement to make wise decisions and to develop mechanisms for relaying consistent market signals and market rewards to various members of food supply chains.

While the accession negotiations process has at times appeared to be slow with some talk of dangers and costs of enlargement among some western politicians and feelings of frustration and flagging enthusiasm among citizens of the CEEC countries, there appears more recently to be a strengthening of political commitment by EU leaders and interest groups that negotiations should be given an impetus to be concluded speedily, but in a manner consistent with ensuring quality of the outcomes. Meanwhile, there is a concern that preparations for enlargement should be properly and smoothly conducted by both the EU and the individual candidate countries.

In its 1997 opinion on the Czech Republic application, the EU Commission had identified problems with primary agriculture, including low yields, product quality and poor profitability; a food industry still in the course of restructuring, hampered by severe finance difficulties and over capacity; inadequate environmental protection and lack of market information at certain stages of the food marketing chain. The 1998 Commission Report – En-

largement 98 reports that no progress had been made in increasing the competitiveness of the Agri-food Sector.

The 1999 Report (Accession Partnership 99) stressed the need to implement legislative approximation and implementation of the *acquis* in accordance with commitments already made, and added the following comments:

"It should be recalled that incorporation of the *acquis* into legislation is not in itself sufficient; it will also be necessary to ensure that it is actually applied to the same standards as those which apply within the Union. In all of the areas listed below there is a need for credible and effective implementation and enforcement of the *acquis*".

The report went on to identify priorities and indicate objectives.

"The priorities and intermediate objectives in the revised Accession Partnerships are again divided into two groups – short and medium term. Those listed under the short term have been selected on the basis that it is realistic to expect that the Czech Republic can complete or take them substantially forward by the end of 2000. The priorities listed under the medium term are expected to take more than one year to complete although work should, wherever possible, also begin on them during 2000".

The short-term priorities for agriculture for the year 2000 are listed as follows:

- Prepare measures required to implement the Common Agricultural Policy and rural development policies (Ministry and institutions such as the State Fund for Market Regulations).
- Veterinary and phytosanitary sector: continue alignment and upgrade inspection arrangements.
- Approve a plan to modernise meat and dairy plants to meet EU hygiene and public health standards.
- Complete harmonisation of the cattle identification system and extend it to cover other species.

The medium-term objectives are listed as follows:

- Reinforce Common Agricultural Policy management mechanisms and administrative structures (monitor agricultural markets and implement structural and rural development measures, set up bodies and control mechanisms).
- Veterinary and phytosanitary sector: complete system of animal identification; implement quality control system (Hazard Analysis Critical Control Point), animal waste treatment, modernisation of meat and dairy plants residue and zoonosis control programmes.
- Implement plan to modernise meat and dairy plants.

In the Composite Report for 1999 the progress of each country has been measured according to two of the sub-criteria of the Copenhagen Economic Criteria – the existence of a functioning market economy and the capacity to withstand competitive forces and market pressures within the Union.

"As in 1998, the Commission finds that Poland, Hungary, Cyprus, Estonia, Slovenia and the Czech Republic can be regarded as functioning market economies, even though the situation in the Czech Republic gives rise to concern".

"In this year's reports, the Commission finds that Cyprus has the ability to cope with competitive pressure and market forces within the Union and Malta's new assessment reaches also this conclusion. Poland, Hungary, Estonia and Slovenia have improved their ability to cope with competitive pressure and market forces within the Union in the medium term. The Czech Republic has continued to lose ground but should still be able to meet this sub-criterion in the medium term if it consistently implements remaining economic reforms".

"All of the candidate countries have continued their efforts in legal approximation. Concrete progress in the adoption of the *acquis*, however, varies significantly between candidate countries. The pace of transposition remains sluggish in Poland and the Czech Republic. The slow pace and piecemeal approach to alignment in these two countries is not consistent with their political aspirations for rapid accession to the EU".

"In its first Regular Reports the Commission highlighted the loss of momentum in the Czech Republic and Slovenia and attributed it partly to a certain "relaxation" once negotiations had been opened. Faced with this analysis, Slovenia had made efforts to regain momentum but the situation in the Czech Republic has not yet improved substantially".

Meanwhile the Report of the Fifth Meeting of the Association Council between the EU and the Czech Republic on 7th December, 1999 notes that:

"The Association Council recognised and appreciated the efforts the Czech Republic is making in pursuing its goal of integration to the European Union. It acknowledged the fact that some of the necessary changes and reforms that the Czech Republic has embarked upon represent significant challenges in economic, social and political terms but repeated however the need for their pursuance. It was noted that limited progress had been made in addressing the short-term Accession Partnership priorities".

Finally, lest it appear that all my comments are based on EU Documentation, I would refer to the Agricultural Policies in OECD Countries, Monitoring and Evaluation 2000 Report, which has just recently become available. The Report contains, for each OECD country, detailed accounts of main policy instruments, the level of support of agriculture, developments in domestic policies, developments in trade policies and an overall evaluation. The overall evaluation in relation to the Czech Republic reads as follows:

"After a period of continued reduction of support to agriculture, support to Czech agriculture increased substantially in 1998 and 1999. While, in 1998, the rise in support was entirely due to a sharp increase in market price support, in 1999, the increase was due to both higher budgetary payments (up 19 per cent) and an increase in market price support (up 9 per cent). The policy measures governing market regulation and payments to agriculture were changed significantly during 1998 and 1999, but in an ad hoc and short-term way. In a transition economy such as the Czech Republic, the large and in-

creasing expenditures on market regulation divert scarce resources from other more efficient uses and slow down economic growth. The state intervention mechanisms for wheat and milk, together with border measures (limiting both imports and exports) applied to all PSE commodities, isolate domestic prices from world market developments and prevent efficient price transmission in the domestic agro-food chain. In the milk and dairy sector, the frequent changes in market intervention rules send confusing signals to market agents and fail to provide the expected price support to milk producers. The continuation of headage payments supporting milk production, together with increasing spending to eliminate the milk surplus illustrates a continuing lack of policy coherence and market orientation. The introduction of general area-based payments under the *Krajina* programme implies weaker linkages with production decisions. However, the potential of these payments to improve environmental performance – which is the main declared objective – remains limited, as most of these payments are provided under very general conditions. Overall, there was a less pronounced move towards more market orientation in the mix of policies applied in 1999, and for some commodities (milk and sugar) the tendency seems to have been reversed."

Serious questions need to be asked:

- Are you making the most of the opportunities to use the Competitiveness *Process* to develop strong food business supply chains?
- Are you giving an increased amount of short-run protection to areas of greatest competitive *disadvantage*?
- Which *signals* are you really sending to farmers and food processors?
- Are you encouraging resources into those sectors where there is long-run competitive *advantage*?

In my view, it would be a tragedy of enormous proportions if you were to discover in 2002 that the result of the series of ad hoc, short-run decisions was that the Czech Republic had used its scarce resources to provide the most support to those lines of production in which its long-term potential to compete within the EU is least! The restructuring opportunity would have been lost.

TOWARDS THE FUTURE

Let me now shift towards a more optimistic view of a future.

Commissioner Verheugen who is the EU Commissioner responsible for enlargement is quoted as telling a European Ministerial Conference in Warsaw on 11th May, 2000 that

"We have now entered a new and distinct stage in the enlargement process. There is a sense of political urgency to welcome the candidate countries into the European Union as soon as they meet the entry requirements and they are ready to join".

Meanwhile, on the 9th November, 1999, Mr. Mertlik, the Vice Prime Minister and Minister of Finance of the Czech

Republic and Mr. Mira, EU Commissioner for Economic and Financial Affairs signed a "Joint Assessment of Economic Policy Priorities of the Czech Republic" which includes the following agreement on objectives:

"The main objective of the economic policy of the Czech government is to meet the Copenhagen criteria, and to close the gap in GDP per capita between the Czech Republic and the European Union. To this end, the medium-term target for economic growth has been set at 2 to 3 percentage points above GDP growth in the EU. In a break with the past, economic policy is to be pursued with greater attention to sustained increases in the competitiveness of the Czech economy, rather than focussing too much on macroeconomic policy".

More recently, the EU and nine CEEC's (not yet including Poland) have successfully negotiated new agricultural trade liberalisation agreements to enter into force on 1st July, 2000. Commissioner Fischler, responsible for Agriculture, Rural Development and Fisheries, is quoted as saying "This is a firm step forward increasing free trade between us. And it is a necessary step which prepares the applicant countries for the single market".

The negotiating approach covered three different kinds of bilateral arrangement linked to the degree of sensitivity of the products and the nature of the CAP mechanism:

List 1: For the least-sensitive products (CEEC products currently facing EU import duty of less than 10% and products imported from the EU and not cultivated in the CEECs), an immediate and full liberalisation of trade has been agreed for unlimited quantities. The list covers more than 400 products and includes, in particular, citrus fruits, olive oil and horse meat.

List 2: The so-called "double zero" approach provides for the reciprocal elimination of export refunds and the elimination of import tariffs within the framework of tariff quotas. The initial level of the tariff quota has been set, as far as possible, at the level corresponding to the current trade pattern (based on the average of the past three years). A substantial yearly increase of the tariff quotas has been agreed bilaterally taking into account the sensitivity of the products and the potential trade development. At this stage, the approach only covers products for which the CAP provides for border protection (import tariffs and export refunds) such as pig meat, poultry, cheese and some fruits and vegetables. Products for which an internal CAP support system is applied for example dairy products have not been included in the double-zero approach, but could be envisaged at a later stage.

List 3: This involves a limited exchange of "ad hoc" concessions decided on the basis of specific requests made and agreed on a case by case basis. The list also aims at balancing the overall agreement.

I would also like to refer to a policy speech on Enlargement of the EU – Challenges and Perspectives for the Agricultural Sector which Commissioner Fischler delivered to a High Level Seminar within the PHARE COPA/COGECA/CEJA Project on 10th July 2000.

The Commissioner pointed to the three key issues, which had emerged in the agricultural negotiations:

- Trade Questions
- The Fixing of Quotas
- The Question of Direct Payments.

He praised the recently negotiated agricultural trade liberalisation agreements and quoted EU Commission estimates, based on recent trade figures, that

"This means that the amount of tariff-free agricultural exports from Central and Eastern Europe to the EU countries increases from only 37 to 77%. In the other direction, that is from the EU to the CEEC, tariff-free exports rise from 20 to 37%".

Referring to the fact that some of the candidate countries do not comply with the EU Standards of Public and Animal Health, he said:

"For me, this is only one more argument that we have to increase our common efforts in the pre-accession strategy. With the help of SAPARD, we should be able to ameliorate both the standards of production and the internal controls at the site of origin. As you can see, we have two options: either improving the production standards in the candidate countries or introducing border controls. I clearly favour the first option.

Moreover, the improvement of production standards is important not only for the future common market. The central and eastern European countries will profit from higher production standards already now under the conditions of the Europe agreements and the "double zero" – agreements respectively. There is no other barrier to your exports to EU countries any more than the difference of standards. Improving production standards means improving your exports".

The second important issue was the fixing of quotas where the question is which reference period should be chosen for fixing production quotas for the candidate countries, many of whom are requesting quotas much higher than their current levels of production, based on the higher levels of production during the 1980's or concepts of future potential production.

This is a sensitive area, reminding me a little of Ireland's argument that it had been a major historical supplier of butter to England in previous centuries when the UK introduced import quotas for butter in the 1960's! Quotas tend to be related to some approximation of market needs, so recent levels of production tend to be given more weight. This poses dilemmas for your government in relation to the short-run support of production levels in order to maximise quota expectations on accession. Similar issues were faced by Ireland where dairy production had expanded in anticipation of EU membership by 1969, so that when membership was delayed until 1972 the cost of short-run butter export subsidies placed a major strain on Ireland's public finances and corrective measures had to be taken. Despite the tendency to relate production quotas to recent and current production levels, the EU has in the past demonstrated flexibility where arguments based on a country's vital interest in a particular product

are sustained during negotiations e.g. Ireland's dairy production.

The final issue was direct payments, which the Commissioner opposed as he felt they would send the wrong incentive to CEEC farmers and would considerably hamper the current restructuring efforts in the candidate countries.

"Moreover, I am convinced that there is another tool for rural development that is far more effective than direct payments: I am speaking of structural aid! Investments through structural aid have a multiplying effect, they are investments in the future of your countries. Direct payments, however, are not productive, but consumptive: they are payments, which are made without necessarily preparing your farmers of the future. (This is true, by the way for farmers in both EU and CEEC). This is why I suggest to concentrate on structural aid when we want to compensate the consequences of enlargement".

"Therefore I think we should concentrate on other ways of serving the interests of the people in rural areas. The Financial perspectives did not include direct payments because it concentrated on another means of support: the Special Accession Programme for Agriculture and Rural Development, short, SAPARD. To my opinion, we should concentrate together on making best use of this instrument. The main aim of this program is to support rural development. Compared to direct payments it has the advantage that all citizens in rural areas profit from SAPARD, no matter if they want to remain farmers or whether they would like to switch to another sector. It all depends on the idea of the local people. As we all know, restructuring of the rural economy will be necessary with or without enlargement! Inside the European Union, approximately 5% of the population are working in agriculture, which is why we had to introduce programs that help creating alternative sources of income. In all candidate countries, the percentage is much higher, so we need rural restructuring and development even more!

– Beside the fact that it supports rural development, SAPARD fulfils other tasks as well: it serves as an excellent tool to make local authorities familiar with the administrative procedures of the European Union programmes, thus it will be much easier for them to use Commission programs after the occasion.

– And finally, it is also fit to help the candidate countries to improve the production standards that are so important for a smooth, tariff-free trade between the EU and the member states. Thus, the funds of SAPARD can be used for investments in local food processing and in veterinary and phyto-sanitary structures. Shortly, SAPARD could be the instrument that removes some of the stumbling blocks of the accession negotiations".

The Commissioner went on to say that, of course, SAPARD will not of itself take care of all the issues associated with preparing for enlargement. "Another measure", he said "will have to be the exchange of know-how and ideas between the member states and candidate countries".

Finally I would draw your attention to the Report of the Second OECD Conference on Agricultural Knowledge Systems (AKS) which took place in Paris in January 2000 and for which I had the privilege being a General Rapporteur.

"Conference participants particularly welcomed the opportunities now afforded for AKS to play a key role in addressing the wider societal issues associated with viewing agriculture in the context of the entire food chain, the increasing public concern with food safety, agriculture-environment issues, the social acceptability of food production processes and the general issues of rural development and multifunctional agriculture. Participants confirmed the willingness to AKS to play a central role in developing research, education and extension/development programmes oriented to these wider societal issues and those related issues which can be anticipated to grow in importance in the 21st century."

"It was made clear that agricultural issues can no longer be considered on a narrow sectoral basis. Agriculture must be considered as part of the entire food chain ranging from consumer choice back through retail, food manufacture, farm production and beyond. Thus, issues like food safety, supply chain management and food availability at affordable prices come to the forefront. Similarly, the sustainable use of natural resources of land and water require that agricultural decisions occur within a context of environmental friendliness while issues of multifunctionality and rural development also reinforce the need for cross sectoral and holistic approaches at local, national and international levels. Moreover, there is an increasing level of societal interest in the social acceptability of the processes of food production, thus bringing even wider considerations to the ongoing debates".

"Agricultural, food and environmental issues, therefore, have become wider and more complex throughout OECD countries. Many more stakeholders and client groups have become relevant to the dialogue. Government has, in a sense, become but one of several clients for AKS services, albeit the client who has the important responsibility or the public good. Policy makers, meanwhile, are often torn between scientific evidence on the one hand, and consumer/interest group concerns which may often be largely emotionally based, on the other. *The urgency of promoting more open and enhanced two-way communication among AKS, the public and policy makers* was of major concern to the conference, which recommends that effective steps be taken as a matter of urgency to develop an ongoing two-way dialogue among those three parties not only at national level but also under the auspices of OECD on an OECD wide basis"

In my view, Agricultural and Food Universities, Faculties, Research Institutes and other education/training providers can be powerful partners with various levels of government and non-governmental organisations and with decision makers in various kinds of enterprises right along the food supply chains. Such partnerships or networks could be quite powerful in developing increased

mutual understanding of the issues affecting each supply chain and in identifying key sets of actions designed to enhance the competitive process relative to individual chains. Agreement on the most appropriate mixtures of physical investment, education/training activities and, of major importance, organisational developments designed to convey market signals and rewards to the participants along the chains would make a key contribution to enhancing the process and would help guide the allocation of scarce public funds to help the process along and *convert competitiveness potential to competitiveness performance*. Interactive knowledge partnerships of this kind could really help to design supply chains best suited to the relative strengths which different kinds of farms (individual farms – large or small; corporate farms – cooperative or company) might have in various lines of farm production, as well as in their human and physical capacity to respond to market signals. The same would apply to food processors and the distribution/marketing system. Partnerships could also explore variations in local/regional circumstances and whether the chains should differentiate among local regions in a manner best suited to the promotion of rural development. I think those of us in the Agricultural Knowledge Systems have a responsibility to heed the OECD advice to enhance our international networking and to answer Commissioner Fischler's urging to expand our exchange of ideas and skills in a spirit of partnership with a view to enhancing the sustainability of our European Society.

THE CHALLENGE

Are you ready to become more involved in a pro-active manner in interactive knowledge networks and partnerships to promote the competitiveness of your supply chains and the sustainable development of your rural societies?

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Arrived on 15th November 2000

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Transfers of income due to the EU's CAP and the accession of Central and Eastern Europe¹

Transfery príjmov v rámci Spoločnej poľnohospodárskej politiky EÚ a integrácia krajín strednej a východnej Európy

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Abstract: Endogenous politician voter interaction model is used to evaluate the evolution of the Common Agricultural Policy (CAP) of the European Union (EU) after the accession of the Central and East European Countries (CEEC). The CAP creates inter-country transfers of income as well as transfers income from a non-farm sector to farmers. These transfers provide a basis for the politically optimal policies. The integration will converge the levels of protection of agriculture between the EU and CEEC. The effect of expected changes of the CAP on welfare in the EU and CEEC is ambiguous.

Key words: agriculture, political economy, integration

Abstrakt: Endogénny model interakcie politikov a voličov sa použil na evaluáciu vývoja Spoločnej poľnohospodárskej politiky EÚ po integrácii krajín strednej a východnej Európy. Spoločná poľnohospodárska politika vytvára medzištátne transfery príjmov a transfer príjmov z nepoľnohospodárskych odvetví do poľnohospodárstva. Tieto transfery poskytujú základ na formovanie politik. Integrácia zároveň povedie ku konvergencii úrovne ochrany poľnohospodárstva v EÚ a v strednej a východnej Európe. Dopad očakávaných zmien v Spoločnej poľnohospodárskej politike na blahobyt v EÚ a v krajinách strednej a východnej Európy je nejednoznačný.

Kľúčové slová: poľnohospodárstvo, politická ekonómia, integrácia

The purpose of this paper is to explore the role of income transfers caused by the Common Agricultural Policy (CAP) of the European Union (EU) and its implications for the accession of the Central and East European countries (CEEC) into the EU. The importance of this particular approach is suggested by the extension of income transfers due to the existence of the CAP. These transfers can be grouped into two categories:

- transfers of income from the non-farm sector to farmers;
- inter-country transfers.

Commodity price supports with import barriers and export subsidies (along with output controls) have been the most common means used by the CAP to achieve income transfers to farming sector. A common support price to all countries is the cornerstone of the CAP, although the two recent reforms of the CAP (MacSharry reform and Agenda 2000) reduced the importance of the price support as a main policy instrument by partly substituting it with direct payments.

The former type of transfer is accomplished through transfers to farmers from consumers who pay higher pri-

ces than they otherwise would with import levies and sometimes alternative forms of production controls, and from taxpayers who finance production and export subsidies and other policy instruments dealing with excess production. Inter-country transfers occur indirectly because of the 'financial solidarity' in financing the CAP with the common budget and of net positive and negative trade positions between countries. Contributions to the common budget consist of revenues from import duties, producer levies, and contributions from member states as a per cent of their value-added tax (VAT) base. After 1988, budget revenues are determined, as a factor of Gross Domestic Product (GDP), depending on the amount needed to balance the budget. An individual country's benefit from the CAP depends on the sectors obtaining subsidies, the country's net trade position (reflecting consumer transfers from one country to farmers in another) and the relative size of that country's production relative to the total production in the EU.

It follows that net food importers and relatively rich countries transfer income to net food exporters and rela-

¹The contribution presented at the conference Agrarian Perspectives IX – Globalisation and Competitiveness (CUA Prague, September 2000)

²This research was undertaken with support from the European Union's Phare ACE Programme 1997. The content of the publication is the sole responsibility of the author and it in no way represents the views of the Commission or its services.

tively poor countries, *ceteris paribus*. The United Kingdom (UK), for example, imports a high proportion of its food from abroad and therefore contributes a relatively high amount to the common budget in the form of import duties. The UK's relatively small agricultural sector means that it receives relatively less from the common budget and common prices than many other EU members states. In regard to off-budget (consumer) transfers to farmers, the UK contributes to farmers in the rest of the EU because it is an importer. However, the contributions of the UK to the common budget are low on account of the country's relatively low VAT base (or per capita GDP). Due to the principle of financial solidarity adopted in the EU, member states with relatively low GDP per capita contribute disproportionately less to the common budget than the richer countries do.

The supranational CAP produces a continuum of beneficiaries and losers among interest groups and countries. The extent to which countries gain or lose depends on two exogenous factors: the level of comparative advantage/disadvantage in agriculture and GDP per capita. The countries that have comparative advantage in agriculture (net exporters) and are relatively poor (low GDP per capita compared to the EU average) benefit the most from the CAP. On the other hand, the biggest net contributors to the common budget of the CAP are relatively rich countries with comparative disadvantage in agriculture (net importers).

Farmers in all EU countries benefit from the CAP. The biggest winners are low cost farmers or those farming sectors with the highest comparative advantage in a low cost country (relatively low GDP per capita). These farmers gain on two accounts: their productivity is high compared to other sectors in the economy, and their support price is higher than the country's politically optimal price would have been outside the CAP. The least gains from the CAP are realized by relatively inefficient farmers in relatively rich countries.

DECISION-MAKING ON THE CAP

The EU shares five institutions: the European Parliament, the Council, the Commission, the Court of Auditors, and the Court of Justice (Bielik 1999). The functions and organizations of these institutions are set out in the Articles 137–188 of the Rome Treaty, which was amended by Maastricht Treaty of 1993 and Amsterdam Treaty in 1997. The most relevant of the institutions with respect to the CAP are the Commission, the Council, and the Parliament. Decision-making on the CAP is regulated by the Article 43 (2). This states that a simple consultation procedure applies to most policy issues within the framework of the CAP. Under this procedure, the EU Commission makes a proposal and the Council decides the proposal, after receiving a non-binding opinion from the European Parliament. Decision-making in the Council proceeds by vote and qualified weighted majority is used.

The Council decides on major policy lines. It is the primary legislative body of the Union. Decisions on the agricultural market organization, setting of target prices, structural and social policy, most aspects of the veterinary and phyto-sanitary policy, environmental policy etc are made by the Council.

The Council is made up of representatives of governments of the member states and its composition depends on the issues that are discussed. In principle, there are several different Councils. General Affairs Council for example consists of ministers or junior ministers of Foreign Affairs, while the Council of Agricultural Ministers brings together all EU farm ministers. There are also Eco-Fin Council, Internal Market Council, Council of Transport Ministers and so on. Heads of governments meet under the auspices of the European Council. The European Council discusses issues relating to the wider European interests and sets priorities for longer future. It also meets when a deadlock needs to be broken. Obviously, agricultural affairs are discussed in the Council of Agricultural Ministers. The European Council enacts major changes, like Agenda 2000.

Decision-making in the Council proceeds by qualified majority. That is 62 out of 87 votes have to be cast in favor of the Commission proposal in order to pass it. The blocking minority, therefore, amounts to 26 votes. The Commission has an exclusive right of initiative. The Council can make decision only on the proposal put forward by the Commission. The proposal can be either accepted or rejected. To amend the Commission proposal, however, requires unanimity in the Council. In order to reach a final agreement, the Commission is usually willing to alter its proposal in the Council's line of thinking. The distribution of votes in the Council is disproportional, i.e. it discriminates in favor of small member states:

- 10 votes each for Germany, France, Italy and the UK;
- 8 votes for Spain;
- 5 votes each for Belgium, the Netherlands, Greece and Portugal;
- 4 votes each for Austria and Sweden;
- 3 votes each for Denmark, Finland and Ireland;
- 2 votes for Luxembourg.

The Council embodies the principle of inter-governmentalism. It is a forum for furthering national interests. On the other hand, the existence of the Commission promotes the idea of federalism in the EU. Proposals of the Commission are supposed to be nationally unbiased, serve the EU and not the individual member states.

THE CEECS AND THE CAP

Many of the CEECs have voiced their desire to join the EU and the EU has decided that these countries shall become members of the European Union in the future. Their full membership will have far-reaching implications for their own agricultural sectors, as well as for agriculture in the EU and the rest of Europe (Swinnen 1996). The agricultural sector has a more important role in econo-

Table 1. Importance of agriculture for the CEECs

	Agricultural employment (% total employment)	Agricultural trade (% total imports)	Food expenditures (% household income)
Poland	25.6	11.1	30
Hungary	10.1	7.4	31
Czech Rep.	5.6	9.6	32
Slovakia	8.4	9.3	38
Slovenia	10.7	8.2	28
Romania	35.2	9.9	60
Bulgaria	21.2	10.6	48
Lithuania	22.4	10.8	58
Latvia	18.4	na	45
Estonia	8.2	19.7	39
CEEC-10	26.7	na	na
EU	5.7	9.5	22

Source: Commission of the European Communities (1995). Report on the agricultural situation in the Community, Luxembourg: Office for Official Publications of the EC

mies of the CEECs than in those of the EU countries (see Table 1). However, agriculture's role in the economy for these CEECs is expected to decline as comparative advantage of these countries gradually moves towards manufacturing.

Policy instruments to intervene in agriculture differ between the CEECs and between years. See Hartell and Swinnen (1998) for a survey. Of the policy instruments, price support is extensively used in all the CEECs. Minimum and guaranteed prices are set for major commodities and government interventions like purchasing or selling commodities or border measures are conducted to avoid the falling of market prices below the prescribed levels. Where consumer purchasing power is an issue guaranteed prices serve as a price ceiling that is supported by export bans. Some of the CEECs avoid the accumulation of surpluses caused by high guaranteed prices by supply control. Slovakia, for example, uses milk quota system combined with guaranteed prices. If undesired surpluses are created anyway, export subsidies install the balance. Export subsidies are often utilized by Poland, Slovakia, Hungary and the Czech Republic, rarely by Rumania or Bulgaria. Declining agricultural profits and high interest rates make access to commercial loans by farmers difficult. To remedy this situation, credit subsidies are introduced in many of the CEECs. Some countries, like Czech Republic and Slovakia, rely on input subsidies to stimulate technological progress.

Swinnen (1996) observes common trends in the development of agricultural policies in the CEECs in post 1989 period. After an initial liberalization, ad hoc protectionist measures were introduced in the second phase of development. These measures alleviated the pressure on decline of agricultural production and income. Ad hoc

Table 2. Inter-country balance of payment transfers due to the pre- and post-1992 CAP (billion ECU)

	1991 (1)	1996 (2)	Enlargement impact (3)
UEBL	-318.5	-495.4	-504
Denmark	782.2	764.3	-216
France	1 565.4	2 195.2	-2 246
Germany	-2 715.1	-3 965.1	-3 628
Ireland	1 669.0	1 448.1	-96
Italy	-2 875.5	-3 173.3	-1 766
The Netherlands	211.9	-348.0	-756
United Kingdom	715.0	417.7	-1 429
Greece	1 043.4	1 841.1	-156
Spain	349.8	1 419.3	-1 033
Portugal	-445.5	-157.8	-180
EU	-	-	-12 000

Source: Mahe and Roe: The Political Economy of Reforming the 1992 CAP Reform. *Amer. J. of Agric.*, 78 (December 1996), pp. 1314-1323

measures are being replaced by comprehensive CAP like market organization in the third phase.

Compared with the EU, protection of agricultural producers is significantly lower in the CEECs. For example the aggregate percentage PSE in the Czech Republic fluctuated between 28 per cent in 1992 and 20 per cent in 1994. The Hungarian percentage PSE did not reach 20 per cent during the same period of time (OECD 1996). Later on, the percentage PSE remained below 20 per cent in Hungary and the Czech Republic and fluctuated in the 20's for Slovakia and Poland.

There are several studies quantifying the consequences of enlargement of the CAP to Central and Eastern Europe. The assumptions made by these studies differ, as do the structures of the quantitative models, thereby producing a wide range of results. Assuming no reform of CAP price levels, these studies by and large argue that EU enlargement to include the CEECs would increase agricultural production and income, but cost taxpayers and consumers more in these CEECs. Ignoring economic inefficiency (deadweight costs), the CEECs would clearly be net beneficiaries of the CAP. The contributions of the CEECs to the common budget would be relatively small due to their relatively low GDP per capita and their net agricultural export status. The cost to current EU member states of income transfers is expected to increase sharply after the accession of the CEECs. Mahé and Roe (1996), for example, estimate inter-country transfers of income arising from pre- and post-enlargement of the CAP (Table 2).

METHODOLOGY

In this paper, we consider a public choice approach to decision-making on the CAP. This is in accord with re-

cent trend because public choice approach has been largely applied to study of agricultural protection in general and the politics of the EU CAP in particular (Josling and Moyer 1991). Public choice stresses that policies result as an outcome of the interaction of the individuals in an institutional context of decisions.

In particular, we follow *endogenous politician voter interaction model* of Swinnen and de Gorter (1993) and consider a political market of rational self-interested politicians and fully informed rational citizens³. Politicians maximize their votes while voters' support is a function of change in utility resulting from the government policy. Politicians undertake a re-distributive policy in order to increase their votes. Citizens provide the support if the policy helps them and reduce their support if the policy hurts them. Different marginal utility of incomes among different income groups allows politicians to increase their votes through redistribution of income. A dollar gain to a poor person causes larger utility increase than a dollar gain to a relatively rich person. Increasing and concave utility of income curve therefore provides a basis for increasing total political support through redistribution of income. Optimal redistribution occurs when the marginal decrease of support from the taxed group equals marginal increase of support from the subsidized sector. Competition among politicians for political support determines the equilibrium level of redistribution. Equilibrium policy depends on pre-policy relative incomes, deadweight costs, and the number of individuals in each group. The extension of the model of Swinnen and de Gorter to include the inter-country transfers of income due to the supranational CAP is provided by de Gorter, Pokrivcak, Swinnen (1998), Pokrivcak and de Gorter (1999) while the issues of accession of CEEC into the EU CAP are formally considered by de Gorter and Pokrivcak (2000).

RESULTS AND DISCUSSION

Political economy predictions

The accession of CEEC into the EU will have far-reaching implications for agriculture and the rest of economy in both the European Union and Central and Eastern Europe. The institutional structure of the CAP and especially its financial solidarity feature will make CEEC net beneficiaries of the CAP, excluding deadweight costs due to sub-optimal allocation of resources. Contributions of these countries to the common budget will be modest due to their relatively low GDP per capita. On the other hand, receipts from the EU budget will be influenced by

the fact that comparative disadvantage of agriculture in the CEEC is disputable and definitely less pronounced than comparative disadvantage of agriculture in the current EU. Obviously, current EU members will become bigger net contributors to the common budget.

The financial solidarity, that is inter-country income redistribution through the common budget, effects the politically optimal transfer levels in both the EU and CEEC. Politically optimal protection of agricultural sector declines in the current EU and rises in CEEC after the accession. The expectations of the changes following the adoption of the CAP already influence the development of agricultural policies in CEEC. CAP like policies are adopted in CEEC and the levels of protection in the EU and CEEC converge as well. Similarly in the EU the prospects of bigger negative income transfers through the CAP to CEEC provide an impetus for the CAP reform. Agenda 2000 was the first step in this direction. Agenda 2000 reduced institutional prices and compensated farmers by direct income payments. Direct income compensation is less distortionary and easier to internalize than price support. Obviously, WTO negotiations, budgetary problems, as well as misallocation of resources played an important role in the CAP reform too. Overall, there is mutual interaction between the EU and CEEC. It is not the case that CEEC adopts the present CAP. The EU as well has to alter its CAP in the view of prospective integration of CEEC.

The inclusion of additional countries into decision making on the CAP will alter the common agricultural policies. The common policies are the function of politically optimal policies of the EU member states, the preferences of the Commission and the decision-making procedure. New common policies will also reflect the preferences of the new member states of the EU (CEEC) as well as inter-country income transfers due to accession of new member states. The new distribution of votes (weights) in the Council will play an important role, too.

Ceteris paribus, our endogenous political voter interaction model predicts that new protection levels in the expanded CAP will be somewhere between the present politically optimal levels of an agricultural protection in CEEC and the current EU (see de Gorter and Pokrivcak 2000).

Welfare consequences

CEEC have at the time being lower preferences for an agricultural protection than the current EU member states. The adoption of the common agricultural policies will therefore benefit farmers in CEEC. Welfare of farmers in CEEC will undoubtedly increase.

³ A quite different approach is taken by Mancur Olson and his followers. They stress the importance of organizations (pressure groups) in policy decisions. Organizations are expected to further the interests of their members and emerge because of the existence of public goods. Favorable legislation for farmers is a pure public good. Olson (1965) considers the size of the group and costs of communication among their potential members as crucial factors determining whether an interest group is formed, i.e. whether it is able to overcome free-rider's problem. Pressure groups are active in the political arena while politicians, political parties, and voters are passive and assumed mainly to "transmit the pressure of active groups" (Becker 1983).

Allocation of resources in CEEC worsens due to the CAP. The actual accession will exacerbate the situation with all the negative consequences for the overall welfare.

The effect of integration on taxpayers in CEEC is ambiguous. Their welfare (tax burden) will: a) decrease due to positive inter-country transfers and b) increase due to higher protection of agriculture under the CAP.

The welfare of consumers will decline. They will pay higher food prices after the integration. Since the food bill is already high in the CEEC, these countries can initiate a policy reform towards the direct income support.

The current EU will become a bigger net contributor to the CAP in the expanded EU. The welfare of taxpayers declines due to this fact. On the other hand, the reduction of the overall level of support increases taxpayers' welfare. The net effect is ambiguous.

The EU farmers will lose due to the integration. Farm prices will decline and income transfers from EU consumers and taxpayers will partly go to CEEC.

The overall effect of the expected reduction of the protection level in the expanded EU is indecisive. The allocation of resources in the EU will benefit from the reduction of protection levels. On the other hand, net income transfers to CEEC will hurt the EU economy.

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Arrived on 15th November 2000

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Czech agriculture transformation and its competitiveness in international trade¹

Transformace českého zemědělství a jeho konkurenceschopnost v zahraničním obchodě

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Abstract: The article deals with evaluation of transformation process of the Czech agriculture, the essence of which were price liberalisation, privatisation and restructuring according to international agri-food trade development. Agri-food development is a function of the competitiveness level. Competitiveness can be analysed from different points of view. In the paper, competitiveness is determined according to several methodological approaches for selected agri-food products and the obtained results were compared. Analysis has showed that common competitiveness indicators – RCA (revealed competitiveness advantage) and CSS (comparable scope of specialisation) have a restricted information capability, namely when interpreted statically in one time period not taking in consideration the long-run development. In spite of the high competitiveness level of many enterprises according to these indicators, their economic size decreases what is contradictory to the theory of firm. The indicator of the enterprises share in gross agricultural production trend development is then a more suitable competitiveness index, what is documented by several papers of author in this research. Commodity competitiveness has reflection also in the farms type structure. The main characteristics of structural changes is a decrease of number of agricultural coops (57 a year) and currently they form approx. one third of agricultural land, whereas in 1993 it were almost two thirds. Simultaneously, the analysis showed a very important knowledge that competitiveness of Czech agri-food industries, even of that traditionally highly competitive, is permanently decreasing and for harmonic joining to the EU, it is necessary to intensify the revitalisation phase included in the agricultural policy of the Czech Republic.

Key words: efficiency of transition, Czech agricultural competitiveness, revealed competitive advantage, comparable scope of specialisation, development trends of commodity and enterprises competitiveness

Abstrakt: Článek se zabývá zhodnocením transformačního procesu českého zemědělství, jehož podstatou byla cenová liberalizace, privatizace a restrukturalizace, podle vývoje zemědělsko potravinářského obchodu České republiky. Vývoj zemědělskopotravinářského obchodu je funkcí konkurenční úrovně. Konkurenceschopnost může být analyzována z různých aspektů. V článku je konkurenceschopnost vymezena podle některých metodických přístupů vybraných zemědělskopotravinářských výrobků a porovnáním získaných výsledků. Z analýzy vyplynulo, že obvyklé ukazatele konkurenceschopnosti – RCA (zjevná konkurenční výhoda) a CSS (srovnatelný rozsah specializace) mají omezenou vypovídací schopnost. Zejména pokud jsou interpretovány staticky v jednom období bez přihlídnutí k dlouhodobému vývoji. Přes vysokou konkurenceschopnost řady odvětví podle těchto ukazatelů jejich ekonomický rozměr se snižuje, což je v rozporu s teorií firmy. Ukazatel vývojových trendů podílů odvětví na tvorbě hrubé zemědělské produkce je pak vystižnějším ukazatelem konkurenceschopnosti, jak je dokladováno autorem článku v závěrečné zprávě MSM 411100013.

Klíčová slova: zjevná konkurenční výhoda, srovnatelný rozsah specializace, vývojové trendy odvětvové konkurenceschopnosti

INTRODUCTION

Present globalisation processes show themselves in many characteristics of the world development, especially in intensifying of labour division by means of foreign trade. If from the industrial revolution in 1720 till 1970 the growth pace of the world trade was 2.6% (i.e. 460 times), during the period 1948–1997 yearly addition was 6%,

even if the world production has increased only by 3.7% yearly. Trade has increased faster than the world economy. In 1990–1995, the world production increased yearly by 2%, while the world trade by 6.8% with a qualitative change from circulating products in favour of products with a higher added value. It results from many reasons, mainly

¹The contribution presented at the conference Agrarian Perspectives IX – Globalisation and Competitiveness (CUA Prague, September 2000)

- technological changes in transport, communication and information systems. New technologies have simplified trade and considerably decreased trade costs. In the period, 1930–1960 costs of the air traffic decreased by 80% and telecommunication by 95%.
- integration processes which enable creation of economic benefits in frame of trade. A row of countries entered at least bilateral agreements or became a part of economic blocks – (EU, CEFTA, NAFTA, ASEAN, MERCOSUR etc.).

in the frame of which trade barriers are reduced or eliminated and foreign trade intensifies. In developing countries, it progresses even more dynamically than in mature economies. However, e.g. countries of Sub-Sahara region show a decreased trade growth under the value of the world trade and their share in the world trade decreased from the level 0.9% in 1980 to 0.5% in 1990. The characterised development is a result of competitiveness of analysed economies and their products.

Similarly, dynamics of foreign trade can be analysed according to commodity aggregation, which is regarding the surplus of agri-food product supply in the European market, especially actual with regard to the expected EU enlargement.

If these products of associated countries were more competitive, agrarian foreign trade would have a destabilising influence on the agrarian sector of the European Union, which the biggest volume of trade transaction is realised in. This relation is valid also contrariwise and to secure sustainable development of agriculture with its multifunctional mission, it is necessary to look for an optimal scope of trade change.

For the Czech enterprises, the EU accession does not mean only an enlargement of potential markets by fifteen European countries but also the entry of the products of these countries into the Czech market. An economically admissible protection against growing import is reaching competitiveness of Czech products with regard to both domestic and foreign trades. These problems are also concerned in the institutional research intention MSM 411100013: "The efficient integration of the Czech agrarian sector in the frame of European structure – prerequisite of sustainable development" and the knowledge supplied by the article results from this research.

GOALS AND METHODS

In connection with the above mentioned and the previous research knowledge gained in the frame of the institutional research intention as well as other by other workplaces, the aim of the contribution is to define competitiveness according to some methodical approaches regarding chosen agricultural products and to compare the obtained results. For this reason, different approaches of competitiveness definition and its measurement will be analysed leading to the choice of its the most suitable signposts. Regarding the article extent, only the more important results will be published, others will be included

into the final research report of the institutional research intention.

In the article, dynamisation of the classical competitiveness signpost – RCA (Revealed Competitive Advantage) resulting from the theory of international trade and CSS signposts (comparable specialisation scope) will be introduced.

$$RCA_t = \frac{\frac{EX_{it}}{IM_{it}}}{\sum_i \frac{EX_{it}}{IM_{it}}} \quad (1)$$

EX_{it} – export of the i -th product in time t

IM_{it} – import of the i -th product in time t

$\sum EX_{it}$ – total export of agri-food products in time t

$\sum IM_{it}$ – total import of agri-food products in time t

i – milk, poultry meat, pork meat, beef meat, cereals, malt, hops, sugar, fruits and vegetables

$$CSS'_t = \frac{\frac{EX'_{ij}}{\sum_i EX'_{ij}}}{\frac{EX'_i}{\sum_i \sum_j EX'_{ij}}} \quad (2)$$

EX'_{ij} – export of j -th product from i -th country in time t

$\sum_i EX'_{ij}$ – world export of j -th product in time t

EX'_i – total export of i -th country in time t

$\sum_i \sum_j EX'_{ij}$ – total world export in time t

From investigated signposts in time t , for $t = (1994 \dots 1999)$ in case of the signpost (1) and for $t = (1993 \dots 1998)$ in case of the signpost (2), growth models of competitiveness of the analysed products will be derived

$$RCA = m + nt \quad (3)$$

$$RCA = r \cdot t^s \quad (4)$$

$$CSS = a + bt \quad (5)$$

$$CSS = c \cdot t^d \quad (6)$$

Structural parameters "a" and "b" determined inter-year changes in competitiveness in absolute units while "s" and "d" express change of elasticity in competitiveness.

RESULTS

Analysis of competitiveness according to the RCA signpost

- From the analysed products, the higher competitiveness in the frame of technical-economic and political

conditions in 1999 show malt, hops, milk, cereals and beef meat (Table 1).

- In the reference period, the sequence of products changes only in solitary cases, however, the differences in competitiveness rate change significantly
- RCA signpost shows a decreasing trend in all statistically important cases. The competitiveness growth is proved only in the case of pork and beef meat but with a very low and therefore unimportant tightness of dependence.
- For illustration, there is shown a growth model of RCA development for milk, hops, sugar and vegetables (Figure 1).

Analysis of competitiveness according to CSS signpost

- According to this signpost, the highest competitiveness in 1998 is shown by hops, malt and milk (Table 2).
- Also according to CSS, the mentioned sequence almost does not change during the period.
- The CSS signpost has in all cases, except pork meat, a growing trend. It is, however, statistically insignificant.
- For illustration, there is introduced a growth model of CSS development for milk, poultry meat, hops and malt (Figure 2).

Table 1: Signposts RCA of selected products

RCA	1994	1995	1996	1997	1998	1999
Milk	56.707	46.75	26.931	23.562	18.923	11.164
Meat						
poultry	1.737	0.113	0.651	0.484	0.424	0.48
pork	0.899	0.098	0.442	6.156	1.926	0.443
beef	0.45	0.632	0.818	3.891	0.626	1.183
Cereals	0.273	5.891	0.393	0.103	0.65	1.85
Malt	182.53	29.819	72.05	199.7	37.34	144.288
Hops	24.762	16.054	19.805	22.156	16.618	10.526
Sugar	33.641	2.687	2.814	16.722	2.049	0.431
Fruit	0.148	0.105	0.109	0.138	0.124	0.137
Vegetables	0.571	0.302	0.205	0.19	0.106	0.161

Source: authors' calculation

Table 2: CSS signposts of selected products

CSS	1993	1994	1995	1996	1997	1998
Milk	3.636	3.183	2.47	2.356	1.703	1.43
Meat						
poultry	0.784	0.36	0.289	0.265	0.237	0.183
pork	0.461	0.179	0.0077	0.049	0.364	0.765
beef	0.1812	0.0756	0.0817	0.0968	0.0953	0.0577
Cereals	0.306	0.133	0.881	0.197	0.073	0.169
Malt	8.905	10.815	8.456	6.24	6.197	5.942
Hops	57.102	51.051	34.204	40.294	34.549	31.055
Sugar	1.034	0.957	0.311	0.289	0.829	0.393

Source: authors' calculation

Chart 1

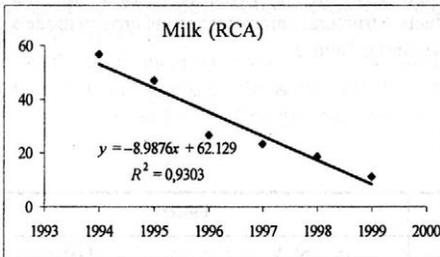


Chart 2

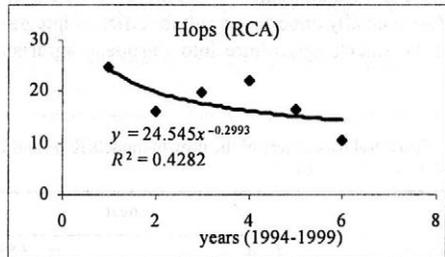


Chart 3

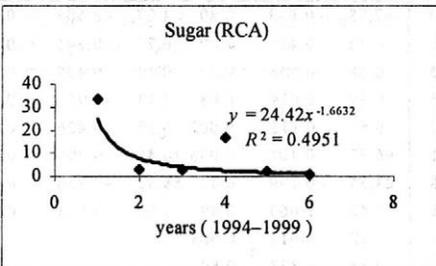


Chart 4

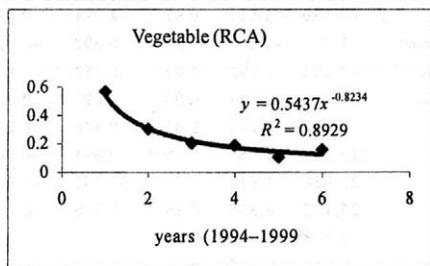


Figure 1. Signposts RCA of selected products

Chart 5

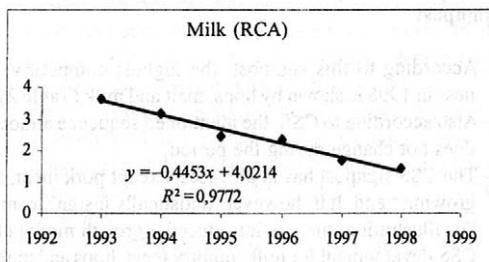


Chart 6

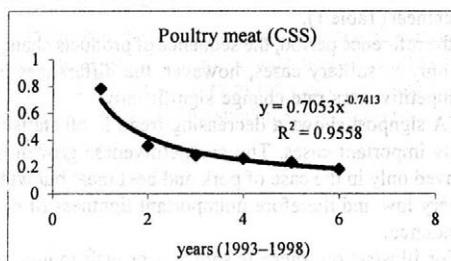


Chart 7

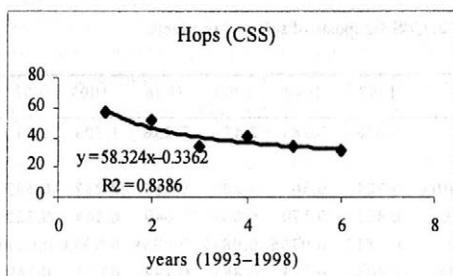


Chart 8

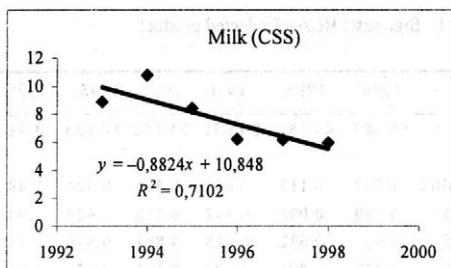


Figure 2. CSS signposts of selected products

Comparison of the analysis results according to RCA and CSS

Even if the construction of both signposts is different, the sequence of commodity competitiveness is analogous. An especially important result for efficient integration of the Czech agriculture into European agrarian

structure is shown according to both signpost: the obvious decrease of competitiveness almost in all products though it is still at a high level of their values. A positive finding is decelerating of these signposts decrease as it is supported by the growth model in strong form in most products. Structural parameters of the growth models are shown in the Table 3.

Table 3: Structural parameters of the growth models RCA and CSS

Product	Linear						Power					
	RCA			CSS			RCA			CSS		
	<i>m</i>	<i>n</i>	<i>R</i> ²	<i>a</i>	<i>b</i>	<i>R</i> ²	<i>r</i>	<i>s</i>	<i>R</i> ²	<i>c</i>	<i>d</i>	<i>R</i> ²
Milk	62.129	-8.987	0.93	4.021	-0.445	0.97	67.75	-0.852	0.89	4.07	-0.505	0.88
Poultry meat	1.2	-0.157	0.27	0.692	-0.097	0.68	0.75	-0.404	0.09	0.7	-0.741	0.95
Beef meat	-0.594	0.192	0.07	0.152	-0.015	0.45	0.48	0.606	0.27	0.14	-0.435	0.56
Pork meat	0.768	0.254	0.04	0.092	0.06	0.15	0.39	0.614	0.08	0.14	-0.02	0.06
Cereals	2.339	-0.232	0.03	0.448	-0.044	0.07	0.57	0.115	0.002	0.33	-0.426	0.11
Malt	115.05	-1.169	0.0009	10.848	-0.882	0.71	96.77	-0.101	0.006	10.45	-0.295	0.63
Hops	25.034	-1.918	0.5	58.741	-4.961	0.78	24.54	-0.299	0.42	58.32	-0.336	0.83
Sugar	25.102	-4.395	0.39	0.996	-0.103	0.31	24.42	-1.663	0.49	0.97	-0.513	0.33
Fruit	-0.123	0.0009	0.009				0.12	-0.012	0.003			
Vegetables	0.521	-0.075	0.71				0.54	-0.823	0.89			

Source: authors' calculation

SUMMARY AND DISCUSSION

In summary, the competitiveness analysis results are relatively favourable and are similar to the conclusions of the FAO grant "Competitiveness of the Czech agriculture" solved by the Research Institute of Agricultural Economics also with the participation of the FEM-CUA. The share of export and import of particular products compared to the share of private export and import according to the RCA signpost shows favourable results from its construction for some products and for other characterises in presents a low level of competitiveness. Especially if the signpost was evaluated statistically – in one period – wrong conclusions could be reached. See e.g. milk, which shows a high but decreasing RCA value in every year of research. Still, in 1999 it highly exceeds competitiveness of the analysed branches while it is generally known that it is an economically problematic product requesting specific measures. The RCA value of milk reflects distortions in trade markets. It proves Jeníček's conclusions about the influence of trade policy in every branch. Competitiveness of milk decreases, however, according to this signpost because the RCA value increased in the reference period 3.1 times.

The support of milk production branch reflects also into the signpost CSS which shows higher values in the analysed period than other products except hops and malt. Also according to this signpost, a wrong conclusion can be formulated about the specialisation of the Czech agriculture with regard to this branch with its subsequent favourable economic characteristics. A long-term development, however, supports also, according to the signpost CSS, the decrease of its value 2.58 times in the period 1993–1998.

An analogous knowledge resulting from the previous analysis for other products is not presented because of the limited article extent.

From the above mentioned, it is obvious that the usual competitiveness signposts – RCA (Revealed Competitive Advantage) and CSS (Comparable Specialisation

Scope) have a limited predicative ability, especially if they are interpreted statically in one period without respect to the long-term development. In spite of the high competitiveness of many branches according to these signposts, the economic dimension decreases what is in the contradiction to the firm theory.

The signpost of development trend of branch shares in creation of gross agricultural production is then a more pregnant competitiveness signpost as it is supported by the article of the author in the final report MSM 411100013.

Nevertheless, the analysis led to a very important knowledge from the viewpoint of efficient integration and globalisation of the Czech agriculture, that its competitiveness of traditionally economically successful branches in the referential period decreases till 1999 and for the harmonic accession to the EU, it is necessary to intensify the revitalisation period included in the agrarian policy of the Czech Republic.

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Arrived on 15th December 2000

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Some problems of economic growth in transitive economies¹

Některé problémy ekonomického růstu v tranzitivních ekonomikách

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Abstract: The article is concerned with comparison of the economic growth in some transitive economies and with the analysis of planning system failure and its reasons. We are also interested in factors, which influence economic growth in the transitive period. The most important long run growth factor is the level of technological progress. Economic growth can be influenced also by other factors in the short run. The transitive period could be characterised by strong decrease in production due to the macroeconomic stabilisation goal, by structural economic changes and by various types of product measuring in the statistics. Product decrease is accompanied by employment decrease.

Key words: economic growth, GDP, technological progress, unemployment

Abstrakt: Příspěvek se zabývá srovnáním ekonomického růstu v některých tranzitivních ekonomikách a rozбором příčin pádu systému plánovitého řízení a příčinami a faktory, které ovlivňovaly ekonomický růst v tranzitivním období. Nejvýznamnějším faktorem růstu v dlouhém období je stupeň technologického pokroku, v krátkém období je možné ekonomický růst ovlivňovat i jinými faktory. Charakteristickým rysem tranzitivního období je významný pokles produktu, jehož hlavní příčinou je snaha o makroekonomickou stabilizaci, dále pak strukturální změny ekonomiky a způsoby statistického měření produktu. S propadem produktu souvisí i pokles zaměstnanosti.

Klíčová slova: ekonomický růst, HDP, technologický pokrok, nezaměstnanost

INTRODUCTION

Transformation of centrally planned economies into market economies is a painful and very difficult process and due to these difficulties, a greater part of voters have oriented to left-wing parties in the end of the nineties.

Speaking about preconditions and conditions of economic growth in transitive economies and also about reasons of the planned system disintegration, we will have a look at some main characteristic features of the countries in question (Table 1).

These are countries with medium income level (according to GDP per capita indicator), on the same level as Portugal or Greece. The grade of liberalisation, privatisation level and macroeconomic control give information about the transformation situation.

Price liberalisation grade is evaluated by number 3, that means an adequate price liberalisation. The liberalisation number is evaluated by 2–4, the lowest number being in Bulgaria (only some firms are privatised), but for example the highest number is reached in the Czech Republic and in Hungary (more than 50% of big firms is privatised). Macroeconomic control number ranges from 1 to 4, that means that the inflation rate was mild in some countries (about 10%), but in others the rate was more than 100% (for example Ukraine).

Table 1. Basic characteristic data of the Central and Eastern Europe countries

	Population	GDP per capita	Price liberalisation	Privatisation	Macroeconomic control
	in million	in USD	Grade	Grade	Grade
Bulgaria	8.5	3,730	3	2	2
CR	10.5	7,700	3	4	4
Hungary	10.5	6,260	3	4	3
Poland	38.6	5,210	3	3	1
Ukraine	52.3	4,030	3	2	1

Source: Transition Report, EBRD, 1995

Price liberalisation Grade:

- 1 – bigger part of prices is controlled
- 2 – price control is important
- 3 – adequate price liberalisation

Privatisation Grade:

- 1 – small extent of the privatisation
- 2 – some firms are privatised
- 3 – more than 25% of big firms are privatised
- 4 – more than 50% of big firms are privatised

Macroeconomic Control measured by inflation:

- 1 – inflation rate over 100% in year 1995
- 2 – inflation rate 50–100% in year 1995
- 3 – inflation rate 10–50% in year 1995
- 4 – inflation rate 0–10% in year 1995

¹The contribution presented at the conference Agrarian Perspectives IX – Globalisation and Competitiveness (CUA Prague, September 2000)

GOALS AND METHODS

The goal of the article is to compare economic growth of some transitive economies using of real gross product data in 90ies and also to determine main factors leading to the disintegration of centrally planned system. In the article, there is done the analysis of deep production fall and the problems of transitive economies at the beginning of economic growth. Economic growth problems are connected with decreasing employment rate, that means with arising unemployment in transitive economies.

The article uses methods of comparing and deduction connected with historical and logic methods and with the method of statistical data analysis.

RESULTS

The following results can be derived from the Table 2:

Average production growth rate (per 1 LU) is in the long run higher in Russia than in the USA (from 1928 to 1987), this indicator was about 2% in the USA. But this indicator evolution includes decrease starting from the 70ies. Anyway, economic growth in developed economies was lower in this period, too. Explanation of this phenomenon we can find in the next part of Table 2.

The per capita capital growth rate was higher than the per capita production growth rate by about 2% in this period. The technological progress rate has been decreasing during the last 30 years and from the 70ies it was about zero (in the 80ies negative). From the theory of economic growth, we know that per capita production growth rate corresponds to the technological progress rate in the long run. The economy can increase its production by the higher rate in the short run but only due to higher capital accumulation. Higher investment rate can give cause to a higher production growth than technological progress rate in the short run. It was for instance USSR, where the accumulation rate was higher than production growth rate. It was possible only because investment rate has been increasing during the

Table 2. Average annual growth rates of production and capital per capita and technological progress indicators in the USSR in years 1928–1987

	Rate of growth of production	Rate of growth capital per worker	Grade of technological progress
1928–1939	2.9	4.9	1.6
1940–1949	1.9	1.5	1.0
1950–1959	5.8	7.4	2.1
1960–1969	3.0	5.4	4.6
1970–1979	2.1	5.0	0.2
1980–1987	1.4	4.0	-0.3
(1928–1987)	2.8	4.8	1.5

Source: NBER, Working Paper 4735, may 1994

whole period. Investment rate was about 15% in the 50ies and increased to 30% in the 80ies. But investment rate cannot grow without limits. Its increasing leads to decrease in the consumption. The economy will reach a frontier named the "golden accumulation rule", according to English economist J. Robinson. Consumption limits gave rise to political pressures and dissatisfaction, which finished, in the end of the 80ies.

Reaching economic growth by investment increasing is impossible from the economic point of view and unsustainable from the political point of view. The rate of economic growth must correspond to technological progress and that stopped in the 70ies according to the Table 2.

If we want to name reasons of the deep production drop, it is necessary to include three ones:

1. The tendency to reach macroeconomic stability led, in many transitive countries, to a high inflation rate according to the Table 4.

The effort to achieve inflation rate reduction led to fiscal and monetary restrictive policies which in turn led to the drop in production. In Czech Republic and Hungary, there were relative low inflation rates connected with a very great fall of the product but the high inflation rate in Poland was not accompanied by the great product fall. In Russia and Ukraine, there existed a high inflation rate and also a great production fall. This relation is not so certain.

2. **Structural changes** are the next reason of production fall. The transformation is connected with rapid demand changes. Public firms which produced according to the plan saw demand shortage for their products and limited the production. Products of new firms which were demanded could not be developed quickly enough to meet the demand. Arising and development of new firms and production changes of the governmental (or semi governmental) firms are long-run processes even if they lead to production increase. Structural changes are the most important factor of production evolution.

3. Third factor is the **way of measuring**. Some products of central planned economy were of no value. It was shown after the price liberalisation when the demand for these products decreased to zero (for example TV-sets from the domestic production). These products had the prices as e. g. bread. Even if the price of bread has increased mildly, its consumption has not changed, prices of the home-production TV-sets decreased and the demand for them is minimal. It results in the considerable decrease of GDP in the national accounting.

What about the next evolution scenario? Let us hope that the restructuring will be finished and economic growth will arise due to private sector development in the next phases. How long will this process take? The answer depends on many factors. The scarcity of domestic entrepreneur experience will be overcome in the future, capital scarcity could be solved by direct foreign investments and by supporting policies.

Big firms restructuring is difficult mainly because of capital scarcity and the socio-political reasons as we

Table 3. Real GDP development in some transforming countries

	1991	1992	1993	1994	1995	1996	1997	1998	1999	1998/1989
Bulgaria	-11.8	-7.4	-1.5	1.8	2.2	-10.9	-7.5	4.0	0.0	69.0
CR	-11.6	-0.5	0.1	2.2	5.9	3.8	0.3	-2.3	0.0	95.6
Slovakia	-14.6	-6.5	-3.7	4.9	6.8	6.9	6.5	4.4	2.0	99.8
Hungary	-11.9	-3.1	-0.6	2.9	1.5	1.3	4.6	5.1	3.0	95.3
Poland	-7.0	2.6	3.8	5.2	7.0	6.1	6.9	4.8	3.5	117.1
Rumania	-12.9	-8.8	1.5	3.9	7.1	4.1	-6.6	-5.5	-3.8	76.1
Slovenia	-8.9	-5.5	2.8	5.3	4.1	3.1	3.3	4.0	3.5	100.4
Russia		-19.0	-12.0	-12.6	-4.1	-4.9	0.5	-4.6	0.0	55.9

can see in the case of closing mines. An important reason is also the problem of ownership relations. Nobody is interested in the prosperity with the hope that government cannot let go bankrupt a firm, which is important for the local employment.

Even if I am not a pessimist, it will take decades until we reach the developed economies level if we are successful because it is possible that we might get beyond the markets in the globalised world

All transitive countries are influenced by structural changes connected with deep fall of production and GDP, especially at the beginning of the 90ies. This very dramatic fall was in some countries deeper than during the crisis in the 30ies. This indicator has decreased to 50% of the 1989 level. (For comparison: production level in the USA decreased in the year 1933 to 66% of year 1929).

The development of basic indicators (production and GDP) in the 90ies is the impact of the centrally planned system disintegration. This disintegration was due to some factors, which could be explained on the example of Russia where these indicators changed very dramatically. In the 60ies the USSR seemed to be able to achieve the economic level of the USA. In the 70ies and 80ies, the impossibility of this action was apparent and the economic crises in the USSR and Eastern countries were unavoidable. For better understanding of economic problems and their reasons, let us have a look at Table 2.

How is it possible that USSR technological progress continued so long? The answer is given by the characteristic features of technological progress itself. It is connected with the ability of firms to make innovations and to implement new technical, technological, production, control, marketing and other innovations. If the economic system does not force firms to make these innovations, that means if firms get inputs according to the plan and their output sale is guaranteed, they are not stimulated to make innovations. Any change (development of new product, saving of raw materials and so on) could disturb the plan or could lead to personal changes in the boards of firms. Due to this fact, chiefs of firms were not interested in changes and the plan could not include the necessary innovations.

But technological progress existed in the Eastern countries since the 80ies. It can be explained as the impact of specific features of technological progress, which could

be applied anywhere if the labour was able to manage it, that means to use a machine in production. Imports of production systems and technological constructions from the Western countries and the good qualification of workers, and somewhere even the creativity of them (in our country) made both technological progress and only a small difference from the developed countries possible. With regard to this fact, the question arises, why the situation changed so dramatically in the 80ies?

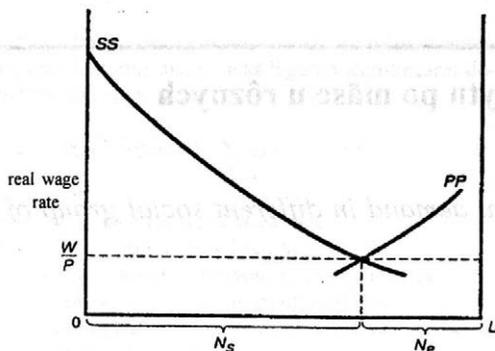
The fall of socialist countries was caused by the technological progress change. New innovations emerging in 70ies could not be included into the plan. Computers are the typical example. Active consumers attitude is necessary for their use. Software evolution is a matter of users and no planned system can substitute this relation between production and consumption. Reforming tendencies were a characteristic feature of all socialist countries in the 70ies and 80ies. The goal of reforms was to enable motivation system for firms in the framework of the central plan. These experiments mostly led to a worse situation than before the motives implementation. For instance, the motive which should bring firms to increase profit led to production of goods with higher profit margin which did not attract buyers and products with smaller profit margin were eliminated. Next continual changes including market elements in the centrally planned system could not occur because it was too late. In this sense, it will be interesting to examine the Chinese economy changes.

The dominant part of employees was employed in the state sector. Unemployment did not exist according to the

Table 4. Annual inflation rates in some transitive economies

	1989	1990	1991	1992	1993	1994	1995
Bulgaria	6	24	405	79	56	122	50
CR	1	10	57	11	21	10	10
Hungary	17	29	35	23	23	21	28
Poland	251	585	70	43	35	30	23
Russia	2	6	144	2,322	842	203	145
Ukraine	2	6	161	2,000	10,155	401	150

Source: EBRD

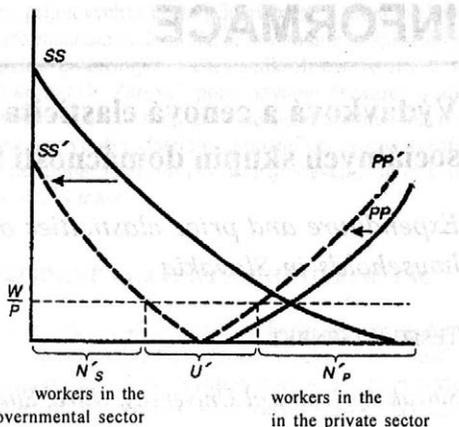


Graph 1. Employment before transformation

official data. For many reasons it can be supposed, that the unemployment was really positive even if not shown in statistical data.

Graph 1 shows the official situation. It depicts two decreasing curves, *SS* for employment in the governmental sector and *PP* for employment in the private sector. Total employment is given by the number of workers in the country with zero unemployment. Let us suppose that real wage rate is W/P . Economic transformation led to deep drop of demand for workers in the governmental sector and to a very small growth of demand in the private sector (see above). That result in unemployment U' shown in the Graph 2.

Loss of the Eastern countries markets, decrease in the armament production, business liberalisation and next reasons led to changes of the demand for workers. One million of tradesman's lists did not mean one million of job opportunities. The question is wages did not



Graph 2. Decrease in employment due to the transformation

decrease enough why under market conditions to balance demand and supply in labour market. One possible answer is that real wages decreased at the beginning of transformation and even if wages were minimal, unemployment would exist in the market economy. This matter would require a special analysis.

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Arrived on 15th December 2000

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Výdavková a cenová elasticita dopytu po mäse u rôznych sociálnych skupín domácností SR

Expenditure and price elasticities of meat demand in different social group of households in Slovakia

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Abstract: Significant changes have occurred in the 1990s in the consumption of meat products in Slovakia. In this paper a linear demand model employing beef, pork and chicken meat per capita and year consumption data segmented by social group is used to identify price and expenditure elasticities for different groups of Slovakian consumers. As the result indicates there is an increasing income variation among the social group of households in Slovakia, which disadvantages the farmers' households. The degree of product and household aggregation influenced the elasticity estimates. As the results indicate both expenditure and own price elasticities for a composite good are lower than those for the individual goods which compose the composite good. So, the more products are combined, the fewer the number of substitutes and therefore the more inelastic demand is likely to be. However, there is a high response to own price and income changes in a deeper disaggregation to the level of individual household group and meat kind.

Key words: price, income, meat demand, elasticities, social group

Abstrakt: Výrazné zmeny v spotrebe mäsa sa uskutočnili v 90. rokoch v Slovenskej republike (SR). V práci sme analyzovali vplyv príjmu a ceny na spotrebu mäsa (hovädzieho, bravčového a hydinového) v SR v jednotlivých sociálnych skupinách domácností (domácnosti zamestnancov, roľníkov, dôchodcov a domácnosti spolu) použitím lineárneho viacnásobného regresného modelu. Zistili sme, že v súčasnosti sa stupňuje výrazná diferenciácia príjmu podľa sociálnych skupín domácností v neprospech domácností roľníkov. Ako potvrdila empirická analýza, stupeň agregácie mäsa (mäso spolu) a domácností (domácnosti spolu) ovplyvnili odhad elasticity. Výdavková a cenová elasticita mäsa ako celku má nižšiu pružnosť než pružnosť individuálnych druhov mäsa, ktoré tvoria zložený výrobok. Z toho vyplýva, že keď sú viaceré príbuzné substitučné výrobky kombinované, potom je menšia substitúcia, preto sa očakáva nižšia pružnosť dopytu. Ale pre hlbšie dezagregácie na úrovni jednotlivých druhov mäsa a sociálnych skupín domácností sa objavujú možnosti pre výraznejšie zmeny v dopyte v závislosti na zmene ceny a príjmu.

Kľúčové slová: cena, príjem, dopyt mäsa, elasticita, sociálna skupina

ÚVOD

Výrazný pokles v spotrebe hovädzieho mäsa (pokles o 53,7 %) a bravčového mäsa (pokles o 19,8 %), výrazný rast spotreby hydinového mäsa (nárast o 14,5 %) sú charakteristikou spotrebiteľského správania sa na trhu mäsa v Slovenskej republike v rokoch 1990–1999. Spotreba živočíšnych produktov je ovplyvňovaná vývojom kúpnej sily obyvateľstva. Najmä odstránením zápornej dane z obratu u potravín, liberalizáciou cien od 1. 1. 1991, všeobecným poklesom kúpnej sily obyvateľstva, zmenou v stravovacích zvyklostiach smerom k racionálnej výžive. To sú faktory, ktoré determinujú trend vývoja spotreby mäsa. Zatiaľ menšia pozornosť sa venuje dopytovej stránke trhu. Cieľom práce je empirická kvantifikácia vplyvu príjmu a ceny (vlastná cena a cena ostatných druhov

mäsa) na spotrebu mäsa (hovädzieho, bravčového a hydinového) podľa sociálnych skupín domácností (domácnosti zamestnancov, roľníkov, dôchodcov a domácnosti spolu) v Slovenskej republike, v období rokov 1990–1999.

MATERIÁL A METODIKA

Hlavným zdrojom dát (spotreba, cena, výdavky na potraviny pre jednotlivé sociálne skupiny) je štatistika rodinných účtov ŠÚ SR v rokoch 1990–1999 v ročnom intervale.

Pre empirickú analýzu bola aplikovaná Marshallová dopytová funkcia (1), vyjadrujúca závislosť dopytu po výrobku q , ako funkcia celkových výdajov za potraviny (m) a vektor cien p :

$$q = g_i(m, p) \quad \text{pri } i = 1, 2, \dots, n \quad (1)$$

Výsledný model je zostavený ako rovnicový vzťah s týmito faktormi, ako statická logaritmicko-lineárna dopytová funkcia v tvare:

$$\log q_i = \alpha_i + e_i(\log m/P) + \sum_{k=1}^n e_{ik} \log(p_k/P) \quad (2)$$

kde:

- q_i – dopyt po výrobku i na osobu a rok
- p_k/P – reálna cena výrobku k v kg a Sk
- m/P – reálne výdavky za potraviny na osobu a rok v Sk
- e_i – výdavková (príjmová) pružnosť výrobku i
- e_{ik} – cenová pružnosť výrobku i vzhľadom k cene výrobku k
- a_i – regresná konštanta
- P – index spotrebiteľských cien (1995 = 1)
- k – v empirickej časti práce označuje: $k = 1$ – bravčové mäso, $k = 2$ – hovädzie mäso, $k = 3$ – hydinové mäso.

Vypočítaním derivácie logaritmickej Marshalovej dopytovej funkcie podľa výdavkov a ceny zistíme výdavkovú elasticitu (3) a cenovú elasticitu (4):

$$e_i = \partial \log g_i(m, p) / \partial \log m \quad (3)$$

je výdavková elasticita, a:

$$e_{ik} = \partial \log g_i(m, p) / \partial \log p_k \quad (4)$$

je vlastná cenová elasticita ($i = k$) a krížová cenová elasticita ($i < > k$). Marshalové elasticity sa nazývajú ako nekompenzované cenové elasticity. Výhodou logaritmickej špecifikácie modelu je konštantnosť elasticít, ktoré sú preto použiteľné na všetkých úrovniach dopytu. Testovanie uvedeného modelu bude realizované použitím programu PcGive 8, pri použití metódy najmenších štvorcov (OLS).

Touto metódou otestujeme aj použiteľnosť ekonomickej teórie dopytu, vyjadrenej prostredníctvom výdavko-

vých (príjmových) a cenových pružností v ekonomickom transformačnom období SR, či je v súlade so správaním sa týchto premenných v ekonomikách trhov rozvíjajúcich sa krajínach. Zároveň porovnáme dezagregovaný (jednotlivé sociálne skupiny domácností a jednotlivé druhy mäsa) výpočet elasticity umožňujúci porovnávanie reakcie domácností u rôznych príjmových skupín a na rôzne druhy mäsa.

DOSIAHNUTÉ VÝSLEDKY A ICH INTERPRETÁCIA

U všetkých sociálnych skupín domácností je spoločné, že ich nominálne čisté príjmy od roku 1990 vzrástli. Keďže životné náklady rástli rýchlejšie ako nominálne čisté príjmy, kúpyschopnosť domácností poklesla odlišným spôsobom (tab. 1). V roku 1999 dosiahli čisté ročné peňažné príjmy domácností spolu 62 982 Sk (mesačne 5 248,5 Sk) v priemere na jedného člena domácnosti. V porovnaní s rokom ekonomickej transformácie (rok 1990) to predstavovalo zvýšenie nominálnej hodnoty o 39 758 Sk, čo v percentuálnom vyjadrení predstavuje rast o 171,2 %. V domácnostiach dôchodcov dokonca sa zvýšila viac než trojnásobne z 18 935 Sk na osobu a rok v roku 1990 na 60 341 Sk (mesačne 5 028,42 Sk) v roku 1999.

Po premietnutí vývoja spotrebiteľských cien reálna hodnota čistého príjmu jednotlivých domácností v roku 1999 v porovnaní s predtransformačnou úrovňou (rok 1990) stále zaostáva. Konkrétne, v reálnom vyjadrení v porovnaní rok 1999 s rokom 1990 najrýchlejšie dynamicky poklesol príjem roľníkov (pokles o 37 %), reálny príjem robotníkov (pokles o 27 %) a zamestnancov (pokles o 16 %). Najmenej poklesol reálny čistý príjem dôchodcov (pokles o 9 %), ktorý je na úrovni 91 % kúpnej sily v roku 1999 v porovnaní s rokom 1990. Znamená to, že životná úroveň domácností v roku 1999 bola nižšia ako

Tab. 1. Vývoj nominálnych a reálnych čistých príjmov na člena domácnosti podľa spoločenských skupín (v Sk a rok)

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	1999/90
Nominálny čistý príjem celkom v domácnostiach:											
spolu	23 224	27 077	29 844	34 158	37 066	41 713	48 792	56 582	59 832	62 982	2,71
robotníkov	22 320	25 821	28 358	32 012	36 072	40 080	44 641	52 126	54 235	56 740	2,54
zamestnancov	24 994	29 437	33 761	39 092	39 538	44 669	53 875	65 913	69 517	73 501	2,94
roľníkov	25 684	27 344	29 334	32 137	35 003	39 026	44 437	50 170	51 456	56 695	2,21
dôchodcov	18 935	24 420	26 823	30 540	35 149	39 340	47 403	54 685	56 340	60 341	3,19
Reálne čistý príjem celkom v domácnostiach:											
spolu	63 224	45 725	45 823	42 571	40 732	41 713	46 126	50 406	49 954	48 985	0,78
robotníkov	60 764	43 605	43 542	39 896	39 640	40 080	42 202	46 437	45 281	44 130	0,73
zamestnancov	68 044	49 711	51 838	48 719	43 449	44 669	50 932	58 719	58 040	57 166	0,84
roľníkov	69 923	46 177	45 041	40 052	38 465	39 026	42 009	44 694	42 961	44 095	0,63
dôchodcov	51 549	41 239	41 185	38 061	38 625	39 340	44 813	48 716	47 039	46 931	0,91

Prameň: Úsek rodinných účtov ŠÚ SR a výpočet autora. Reálny príjem je vypočítaný indexom spotrebiteľských cien, kde rok 1995 bol určený ako základný rok

v roku 1990. V súčasnosti sa na formovaní dopytu po potravinách svojimi príjmami najmenej podieľajú domácnosti roľníkov. Podobne aj domácnosti robotníkov, ktoré sa nachádzajú v roku 1999 na úrovni 73 % životnej úrovni oproti roku 1990. To jednoznačne poukazuje na stupňujúcu diferenciáciu životnej úrovne jednotlivých sociálnych skupín. Hypotéza práce vychádza z toho, že domácnosti s rozdielnou úrovňou príjmu reagujú rôzne na zmenu ceny a príjmu pri nákupe mäsa.

Reálne čisté výdavky za potraviny v porovnaní s reálnou hodnotou roku 1990 dosahovali v roku 1999 80 % v domácnostiach dôchodcov a robotníkov a 85 % v domácnostiach zamestnancov, roľníkov a domácnosti spolu. Znamená to, že spotreba vo svojom fyzickom objeme v týchto domácnostiach dosahovala v roku 1999 80 % a 85 % úrovne v roku 1990.

Spotrebiteľské ceny sú ďalším významným faktorom v smere ovplyvňovania dopytu po hovädzom, bravčovom a hydinovom mäse. Otázka je, na koľko sú významné a v akom rozsahu ovplyvňuje vlastná cena a krížové ceny výrobku dopyt po mäse v sledovanom období.

Empirický výsledok dopytu po mäse – jednotlivé druhy mäsa a sociálne skupiny domácnosti

Tento model sa vyznačuje vysokou mierou štatistickej významnosti, keď koeficienty determinácie (R^2) sú veľmi vysoké (v rozmedzí od 0,63–0,98). Výsledky testu autokorelácie rezíduí sú v rozmedzí dolnej a hornej hranice intervalu, kde je nepreukazná existencia autokorelácie rezíduí. Skoro všetky výsledky parametrov modelu sú štatisticky významné.

Z dosiahnutých výsledkov vyplýva:

1. Koeficienty premeny vlastnej ceny troch druhov mäsa sú v modeli odhadnuté podľa teoretickej intuície (tab. 2). Znamená to, že zvýšenie vlastnej ceny hovädzieho, bravčového a hydinového mäsa má za následok zníženie dopytovaného množstva týchto druhov mäsa. Predpoklad, že dopyt po potravinách je cenovo neelastický (absolútna hodnota vlastnej cenovej elasticity je nižšia ako jedna), sa potvrdil v prípade bravčového mäsa v domácnostiach zamestnancov ($e_{11} = -0,70$) a v domácnostiach dôchodcov ($e_{11} = -0,91$ – tab. 3 a 4). Podobne aj v prípade hydinového mäsa v domácnostiach dôchodcov ($e_{33} = -0,98$).

Naopak, cenovo elastický dopyt je po hovädzom a hydinovom mäse v domácnostiach zamestnancov ($e_{22} = -1,55$

a $e_{33} = -1,50$) a po hovädzom mäse v domácnostiach dôchodcov ($e_{22} = -2,39$).

Na zmenu vlastnej ceny výrobku je viac senzitivná spotreba hovädzieho mäsa v domácnostiach dôchodcov, kde zvýšenie (zníženie) vlastnej ceny hovädzieho mäsa o 1 % má za následok skoro dvaaplnásobné zníženie (zvýšenie) spotreby tohto mäsa. Podobne aj v domácnostiach zamestnancov pri jednopercentnom zvýšení (znížení) vlastnej ceny hovädzieho mäsa došlo k 1,5násobnému zníženiu (zvýšeniu) dopytu po hovädzom mäse.

2. Krížová cenová elasticita dopytu po jednom druhu mäsa v závislosti na zmene ceny iného druhu mäsa bola odhadnutá ako kladná (substitučné výrobky), ale aj ako záporná (komplementárne výrobky). Vzhľadom k tomu, že výsledky modelu nespĺňajú kritéria medzi elasticitami (podmienky: homogénnosť, symetria a Engelov agregát), preto odporúčame model dopytového systému (nie funkcie), ktorý zahŕňa tieto kritéria (pozri Ratering 1995 a Janda 1994).

3. Koeficienty premeny výdavkov za potraviny sú v modeli odhadnuté podľa teoretického predpokladu (tab. 2). Zvýšenie výdavkov (príjmov) má za následok zvýšenie spotreby všetkých druhov mäsa. Z výsledkov vyplýva, že dopyt po hovädzom mäse v domácnostiach roľníkov sa zvýši v menšej miere než o koľko sa zvýšia výdavky na potraviny, ide o tzv. nevyhnutný statok. Naopak, dopyt po bravčovom a hydinovom mäse v domácnostiach roľníkov sa zvýši v porovnaní s rastom výdavkov na potraviny viac ako proporcionálne, ide o tzv. luxusné statky. Dopyt po hovädzom a bravčovom mäse v domácnostiach zamestnancov je výdavkovo neelastický, dopyt po hydinovom mäse výdavkovo elastický. V domácnostiach dôchodcov dopyt po bravčovom, hovädzom a hydinovom mäse je výdavkovo elastický.

Na zmenu príjmu citlivo reaguje dopyt po hydinovom mäse ($e_{33} = 2,32$) v domácnostiach zamestnancov a roľníkov ($e_{33} = 1,88$) a dopyt po hovädzom mäse v domácnostiach dôchodcov ($e_{22} = 2,42$).

Výsledky modelu zložených výrobkov

V práci sme agregovali všetky tri druhy mäsa do jedného zloženého výrobku (mäso spolu (QF)) a zistili sme jeho výdavkovú a cenovú elasticitu. V modeli zloženého výrobku sme definovali množstvo spotreby mäsa ako súčet jednotlivých mäsových výrobkov:

Tab. 2. Výdavková a cenová elasticita dopytu mäsa u jednotlivých sociálnych skupín domácnosti SR

	Cenová elasticita domácností				Výdavková elasticita domácností			
	zamestnancov	roľníkov	dôchodcov	spolu	zamestnancov	roľníkov	dôchodcov	spolu
Mäso bravčové	-0,70	-1,04	-0,91	-0,38	0,70	1,33	1,33	1,57
Mäso hovädzie	-1,55	-0,99	-2,39	-2,84	0,36	0,61	2,42	1,90
Mäso hydinové	-1,50	-1,03	-0,98	-0,83	2,32	1,88	1,67	1,32
Mäso spolu	-0,33	-0,96	-0,97	-0,35	0,98	0,83	0,84	0,73

$$QF = Q_1 + Q_2 + Q_3 \quad (5)$$

a cenu mäsa sme definovali ako vážený priemer jednotlivých cien mäsa:

$$PF = (Q_1 * P_1 + Q_2 * P_2 + Q_3 * P_3) / QF \quad (6)$$

Z dosiahnutých výsledkov tohto modelu vyplýva (tab. 2 a 4):

1. Koeficient premeny vlastnej ceny mäsa je v modeli odhadnutý podľa teoretického očakávania, kde rast ceny mäsa má za následok zníženie dopytovaného množstva výrobku. Predpoklad, že dopyt po potravinách je cenovo neelastický (absolútna hodnota vlastnej cenovej elasticity je nižšia ako jedna), sa potvrdil vo všetkých druhov mäsa.
2. Koeficient premeny výdavkov je v modeli odhadnutý podľa teoretického predpokladu. Znamená to, že zvýšenie (zníženie) výdavkov (príjmu) má za následok zvýšenie (zníženie) spotreby jednotlivých druhov mäsa. Celkovo tento druh modelu potvrdil, že dopyt po mäse

v jednotlivých sociálnych skupinách je cenovo a výdavkovo neelastický.

Z výsledkov analýzy troch druhov mäsa v jednotlivých sociálnych skupinách domácností a domácností spolu sme zistili, že mäso je *štandardným tovarom*, t. z. tovarom, ktorého spotreba rastie pri poklese jeho ceny a naopak, čiže dopytová funkcia má záporný sklon.

Reakcie jednotlivých sociálnych skupín domácností na zmenu ceny a príjmu pri nákupe mäsa sú odlišné od celospoločenského priemeru domácností. Analýza priemernej domácnosti zmeria existujúce rozdiely v spotrebiteľskom správaní na trhu mäsa pri zmene ceny a príjmu. Takže, keď existuje príjmová diferenciácia, je potrebné eliminovať videnie (pohľad) priemerného človeka. Absolútna hodnota pružnosť bravčového a hydinového mäsa v domácnosti spolu je nižšia než pružnosť týchto výrobkov v jednotlivých domácnostiach. Napríklad dopyt po hydinovom mäse u domácností zamestnancov je cenovo

Tab. 3. Individuálny odhad troch dopytových rovníc metódou najmenších štvorcov – domácností dôchodcov

Bravčové mäso				
R^2		D. W. štatistika		F-štatistika
= 0.965506		= 1.99		= 34.988 [0.0008]
parametre	koeficient	štandardná odchýlka	T-štatistika	P-hodnota
α_1	-2.1411	0.51181	-4.183	[0.0086]
e_{11}	-0.90642	0.093175	-9.728	[0.0002]
e_{12}	-0.26316	0.10855	-2.424	[0.0598]
e_{13}	-0.020200	0.053126	-0.380	[0.7194]
e_1	1.3341	0.17683	7.545	[0.0006]
Hovädzie mäso				
R^2		D. W. štatistika		F-štatistika
= 0.975868		= 3.11		= 50.549 [0.0003]
parametre	koeficient	štandardná odchýlka	T-štatistika	P-hodnota
α_2	-6.1532	1.0709	-5.746	[0.0022]
e_{21}	0.96097	0.19495	4.929	[0.0044]
e_{22}	-2.3847	0.22711	-10.500	[0.0001]
e_{23}	-0.25669	0.11116	-2.309	[0.0690]
e_2	2.4193	0.36997	6.539	[0.0013]
Hydinové mäso				
R^2		D. W. štatistika		F-štatistika
= 0.963964		= 1.74		= 33.438 [0.0008]
parametre	koeficient	štandardná odchýlka	T-štatistika	P-hodnota
α_3	-3.4205	0.90624	-3.774	[0.0130]
e_{31}	0.0079979	0.16498	0.048	[0.9632]
e_{32}	-0.32322	0.19220	-1.682	[0.1535]
e_{33}	-0.98318	0.094069	-10.452	[0.0001]
e_3	1.6709	0.31310	5.337	[0.0031]

Tab. 4. Individuálny odhad zloženého výrobku dopytovej rovnice metódou najmenších štvorcov.

Mäso – domácnosti zamestnancov				
R^2		D. W. štatistika		F-štatistika
= 0.640212		= 1.49		= 6.228 [0.0279]
parametre	koeficient	štandardná odchýlka	T-štatistika	P-hodnota
α	-1.9995	0.95947	-2.084	[0.0756]
e_{11}	-0.33173	0.24866	-1.334	[0.2239]
e_1	0.98301	0.29367	3.347	[0.0123]
Mäso – domácnosti roľníkov				
R^2		D. W. štatistika		F-štatistika
= 0.628563		= 0.826		= 5.9229 [0.0312]
parametre	koeficient	štandardná odchýlka	T-štatistika	P-hodnota
α	-0.29578	0.46778	-0.632	[0.5473]
e_{11}	-0.95698	0.30688	-3.118	[0.0169]
e_1	0.83157	0.24372	3.412	[0.0113]
Mäso – domácnosti dôchodcov				
R^2		D. W. štatistika		F-štatistika
= 0.855865		= 1.63		= 20.783 [0.0011]
parametre	koeficient	štandardná odchýlka	T-štatistika	P-hodnota
α	-0.099977	0.32575	-0.307	[0.7678]
e_{11}	-0.96854	0.15174	-6.383	[0.0004]
e_1	0.83584	0.14067	5.942	[0.0006]
Mäso – domácnosti spolu				
R^2		D. W. štatistika		F-štatistika
= 0.670546		= 1.99		= 7.1236 [0.0205]
parametre	koeficient	štandardná odchýlka	T-štatistika	P-hodnota
α	-0.88223	0.63327	-1.393	[0.2062]
e_{11}	-0.34989	0.14714	-2.378	[0.0490]
e_1	0.72818	0.19350	3.763	[0.0070]

vo a výdavkovo elastický. U domácností dôchodcov dopyt po hovädzom mäse je cenovo a výdavkovo vysoko elastický. To znamená, že tieto skupiny domácností sú cenovo citlivé. Naopak u domácností roľníkov dopyt po hovädzom mäse je cenovo a výdavkovo neelastický (ne-citlivý na zmenu ceny).

Ďalším zaujímavým poznatkom je to, že hodnota cenovej a výdavkovej elasticity mäsa ako celku (široká komodita) je menej neelastická u jednotlivých sociálnych skupín než je u jednotlivých druhov mäsa v jednotlivých sociálnych skupinách. Pretože neexistujú žiadne substitučné výrobky pre komoditu mäso ako celku, dopyt po mäse celkom nie je taký citlivý na cenové zmeny, ako sú citlivé na zmenu ceny jednotlivé druhy mäsa (napríklad hovädzie mäso). Keď cena hovädzieho mäsa rastie, spotrebiteľia môžu substituovať tento druh inými druhmi mäsa vrátane hydinového, bravčového mäsa, čiže dopyt po hovädzom mäse je vyššie elastický ako dopyt po mäse celkom, pre ktorý neexistuje plnohodnotný doplnujúci výrobok.

Z toho vyplýva, že počet dostupných substitučných výrobkov je jedným z rozhodujúcich faktorov ovplyvňujúcich elasticitu dopytu po danom tovare. Čím je väčší počet substitučných tovarov daného výrobku, tým je vyššia elasticita dopytu. Naopak, ak existuje len minimálny počet substitučných tovarov daného výrobku, tak spotrebiteľia nemôžu operatívne preorientovať svoj dopyt na iný príbuzný tovar (substitučný tovar), tým je jeho elasticita dopytu nižšia. Ďalším faktorom, ktorý ovplyvňuje cenovú elasticitu dopytu, je čas. V krátkom období je spravidla cenová elasticita dopytu nižšia než v dlhom období, pretože trvá určitý čas, kým spotrebiteľ zareaguje na zmenu ceny. Význam výrobku pre existenciu človeka, spotrebné zvyklosti a tradícia sú faktormi ovplyvňujúcimi elasticitu dopytu.

ZÁVER

V súčasnosti sa stupňuje výrazná diferenciácia príjmu podľa sociálnych skupín domácností v neprospech domácností roľníkov. Empirická analýza potvrdila, že dopyt po mäse ako celku je cenovo a výdavkovo nepružný. Ale pre hlbšie dezagregácie na úrovni jednotlivých druhov mäsa a sociálnych skupín domácností sa objavujú možnosti pre výraznejšie zmeny v dopyte v závislosti na zmene ceny a príjmu. Z výsledkov sme tiež zistili, že spotrebiteľský trh mäsa SR v rokoch 1990–1999 sa choval v súlade s chovaním trhovej ekonomiky tak, ako sa chovajú premenné modelu dopytu v trhovom rozvinutých krajinách.

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