

Preconditions for the Realization of Socio-Economic Modernization in Hungary

ERZSÉBET NOVÁKY

UNIVERSITY PROFESSOR DSC, HEAD OF RESEARCH CENTRE

E-mail: erzsebet.novaky@bkae.hu

SUMMARY

In her paper the author emphasises that economic and social modernization are of equal importance nowadays in Hungary. For economic modernization the possibility of the modification of socio-economic processes, and for social modernization the future-shaping power constitutes the main precondition. While the modification of socio-economic processes can be investigated by their stability/instability analyses, the future-shaping power can be gauged by the future orientation of individuals and social organizations. “Factor four” provides the guidelines for economic modernization, and a future-oriented education and training system can ensure a solid basis for social modernization.

Key words: modernization, stability/instability, future orientation, factor four, future-oriented education system

INTRODUCTORY THOUGHTS

We live in an age when modernization is inevitable. It is made indispensable not only by Hungary’s development but also by the wider community, the broader social, economic and political environment we live in and form a part of. The growing social demands cannot be met, social differences cannot be mitigated, the natural environment and the state of health of the population cannot improve, the level of knowledge of the population cannot move in a positive direction and we cannot feel good in a new international community unless there is modernization. Thus modernization must be implemented both in society and in economy alike. Social and economic modernization complements each other and may enhance each other’s effect. *Human capital is a key factor* in social and economic modernization. The state, the general level of training, the ability to renew and openness to the future of human capital can be decisive from the point of view of Hungary’s further development (Bélyácz and Berend, 1997, Berend, 2002, Kopp and Skrabski, 2002). It depends namely on the state of the human capital what a society can or cannot do, *what it can influence or alter in the interest of its development, what potential it can realize and what it can avoid*. The role of human capital is vital in how it influences unstable socio-economic macro-level processes in the interest of social

progress. It is also decisive what forces it can activate in the interest of implementing the changes.

In connection with Hungary’s socio-economic modernization I point out the following two issues:

- the stability/instability of macro processes and
- the future orientation of individuals and social institutions.

My focus is on self-organization and the future-shaping power of individuals and small communities. “Factor four” can provide the guidelines for economic modernization, and future-oriented education and training can ensure a solid basis for social modernization.

1. PRECONDITIONS FOR MODERNIZATION

1.1 A precondition for economic modernization: the instability of macro processes

The instability of macro processes provides favourable ground, in other words serves as an adequate background factor, for modernization. I make this assertion on the basis of our former research results that have allowed us to conclude the following: instability and the presence of

chaos, in the mathematical sense, pave the way for novelty (Nováky, 1997). Chaos indicates the end of some previous process; a state of equilibrium reached at a given level of development and organization amid a certain degree of complexity, and marks the beginning of the emergence of a new equilibrium or stable state. The emergence of chaos is preceded by the surging of bifurcation. This reflects that the earlier factors determining the possible courses of growth/development start to lose significance. In the meantime a process promoting the emergence of a new dynamic system may get under way. That allows the prevalence of new structures and the factors determining them and so the development of the economic and social modernization.

In the Futures Studies Centre of the Budapest University of Economic Sciences and Public Administration we examined 20-25 *macro economic indicators* to see how their long-term data series behave, whether they are stable or display signs of instability (Nováky ed., 1995). The indicators examined included the GDP per capita, the volume of investments, the number of dwellings built, the number of economically active population, the number of active wage-earners, the production and gross consumption of electric power, real wages and consumption per capita, the unemployment and inflation rate and changes in the interest rate. For our analysis we *employed chaos calculations* based on chaos theory. It can be shown by simple mathematical means whether the data series are sensitive to minor changes, whether the actual data series of the indicators do in fact coincide with the paths that can be generated mathematically, and what behaviour of the data series (maintenance of the earlier stable state or the emergence of hitherto not experienced new stable states) can be expected in the forecast period. The analysis also anticipates the formation of new paths.

It can be stated on the basis of our analysis of long-term data series of the main Hungarian macro economic indicators that most of the economic indicators display neither chaotic behaviour nor an inclination to that effect. These economic indicators are not sensitive to the minor changes affecting them and change only under pressure from significant forces. The data series of GDP per capita, the number of investments and dwellings built, for instance, are slightly and moderately unstable. Macro indicators sensitive to change reflect not only that they can diverge from a given growth path under minor influences but also that properly applied minor changes can divert them from their old paths onto a new one. With appropriate and well-chosen means of economic policy and social policy their behaviour can be channelled towards modernization.

The Hungarian economy at present is not in a state of chaos in the mathematical sense. It has, however, reached a state that is characterised by slight-to-average instability/chaos, i.e. sensitivity to minor changes can be detected (Nováky ed., 1995). Inclination to chaotic behaviour indicates that *the current driving forces behind growth/development have run out of steam*. The analysis of the indicators also leads to the conclusion that, on the basis of possible and realized growth paths, all interventions failed in the case of stable processes, as the indicators could not be diverted to a more

favourable path. The not really favourable shaping up of slightly and moderately chaotic indicators (e.g. the annual growth rate of the GDP) shows that they could not be diverted to a better path through intervention either.

Linking macro indicators that display different patterns of behaviour can show where we can expect to encounter situations that enhance or weaken chaotic behaviour and how these can promote economic modernization in Hungary. From the modernization's point of view it is important to examine *how economic growth measured in terms of GDP indicators moves together chaos-wise with other phenomena, both with economic and non-economic, chaotic and non-chaotic ones, as well as with phenomena emerging on the different levels of intensity of chaos*. The following conclusions can be drawn:

- > the indicators of *the number of investments and economically active population* are both slightly changeable and chaotic in nature; they may promote the increase of GDP growth rate, but in the long term further indicators need to be coupled with these two indicators;
- > *the data series showing the number of dwellings built* is also a factor promoting growth; its moderately chaotic behaviour can contribute to the lasting sustenance of GDP growth;
- > two branches of fundamental importance to the national economy in an industrial society, *industry and agriculture*, cannot play a significant role in exerting a favourable influence on the GDP in Hungary. The related production indicators do not behave in a chaotic manner, so they fail to renew neither themselves nor the GDP index;
- > according to some characteristic indicators, the information society is going through a preparatory phase at the moment: the behaviour of the number of main telephone lines and the indicators of paper consumption do not display a chaotic character; the influence they exert on the GDP will probably be felt in the long term;
- > the slightly chaotic character of the indicator for *the gross consumption of electrical power* may infer the possibility of a transition to a new society;
- > *the data series for the consumption of households and the changes in real income* as well as *the rate of unemployment and changes in the interest rate* do not show chaotic behaviour; therefore they cannot alter the situation. The latter indicators hopefully bear the potential that their behaviour may become chaotic on a more advanced level of economic development and thus boost the economy.

It follows from the above that in Hungary investment, dwelling construction, the economically active population and gross consumption of electrical power play a more important role among the factors of economic growth than industrial and agricultural production, certain indices of services, the per capital consumption and real income as well as the changes in the rate of unemployment and in the interest rate. All this also indicates that the shift towards a modern economy is still not sufficiently decisive or determined. *Economic modernization, therefore, has begun but is yet to become fully fledged*. The analyses also show that

the number of teachers/instructors and the economically active population may speed up the future renewal of economic growth.

From the point of view of chaos the GDP index and the indices for a negative social and health state move together. This can also be interpreted in a way that *GDP growth means a decline in the state of health of the population*. Work (or extra work) means both a physical and spiritual extra burden on the Hungarian population. The slightly chaotic behaviour of the data series for *suicide and death through self-inflicted harm* as well as *the number of criminal acts committed* and the moderately chaotic behaviour of the GDP show discrepancies. Thus, “work makes the Hungarian population ill” but “dropping out” is not inevitable. The indicators reflecting changeability express the fact of being easily influenced. *An opportunity presents itself*, therefore, it *influences these indices directly*. This means that the factors of growth are not “carved in stone” but can change and be changed. At the same time *new elements of growth have also surfaced*. These are suitable for driving the economy towards an information economy, *launching modernization*. No factor on its own can induce a turn for the better in the Hungarian GDP, but the simultaneous emergence of a number of factors together may exert a favourable influence. Both points of view relating to social policy and economic policy need to be considered for this to be recognised and exploited.

1.2 A precondition for social modernization: the future orientation of individuals and social institutions

Future orientation is an exclusive characteristic and a unique skill of human beings; it enables thinking to be regulated not only by the past and the present but also to reflect continuously assumptions and expectations regarding the future. Decisions and actions of a future-oriented person are guided more by his/her intentions, goals and desires for the future than by his/her experience of the past. It is the future that inspires the driving force of human activity. (Nováky, Hideg and Kappéter, 1994)

Future orientation is person and culture-specific. An individual's biological factors (special brain structures) and psychic/psychological factors (attitudes, endurance, motivation for achievement, capacity for creative thinking, education for a future-oriented personality in which family and education play a leading role) all contribute to the way he/she views and shapes the future. Cultures and societies obviously differ in their future orientation, just as different historical and social eras also vary from the point of view of future orientation. People generally tend to be more future-oriented at times of significant changes such as in the course of a change of era than in periods of tranquillity and no remarkable change.

The components of future orientation are an interest in the future, thinking about the future, activities performed in the interest of the future and expectations for the future. A person, who is merely interested in the future, thinks about the future and formulates hopes and expectations for the future, takes a passive attitude to the future. But if he/she

performs certain activities in the interest of the future, his/her future orientation turns active. Future orientation can be gauged through answers given to questions related to the future.

The future orientation of the Hungarian population has undergone change in the past ten years. This can be traced by means of the questionnaires used in surveys carried out in different years. *The 1992 target sample* indicates that Hungarian people take interest in the future (mainly in that of the family and the children and also because they wish to influence their future); and they assume others are interested in and think about it, as well. The population sample has been thinking more about the future since the change of regime than before, when conditions were basically steady. The future of the family and the world are the two main areas of interest as opposed to the future of the country and the place of residence. The population sample is characterised by short and medium-term thinking, i.e. in the 1-5-year and the 5-10-year period. *Studying, further training and work are the principal activities performed in the interest of the future*. As far as expectations are concerned, the respondents expect a favourable and unchanged situation instead of something more unfavourable than the present.

Sex, age and the place of residence do not constitute decisive elements in *an individual's future orientation; qualification, schooling and education carry most weight*. More educated individuals, people with a college degree tend to be more future-oriented than those who left school without taking their final exams. Future-oriented individuals do not expect a harmonious future from and for others but actually do something for it themselves and also look forward to it.

The 1995 nationwide sample shows that the respondents think little about the future. They believe that each individual's fate depends on himself but they can hardly influence their fate. They waver in their trust in the future and many of them fear the future. *Their attitude to the future, therefore, is uncertain and contradictory*. Activities performed in the interest of the future are usually even more work, studying and looking after the family. By the mid-1990s new activities, such as increasing material wealth and caring about one's state of health, had surfaced. We believe that *those who do various activities in the interest of the future are the truly future-oriented people*. It is interesting to note that expectations relating to happiness and finances differ. Progress in material wealth is not necessary for happiness.

A survey carried out among university undergraduates *at the turn of the millennium* showed that they were interested in the future because they wanted to know what to expect (particularly concerning the future of the family and mankind) and because they *wished to influence* it. They believe that others showed interest in the future owing to a sense of insecurity. The undergraduates look to the future with hope, do not fear it and are optimistic and positive. The future interests them in the 1-5-year time span when it comes to their own future and that of their place of dwelling, in a longer period for their family, the 1-5-year and 10-20-year time span for the country and the 20-50-year time span for the world. They not only study, work and

protect the environment in the interest of the future but also *build interpersonal contacts, develop their personality, look after their health, and generally behave in a responsible way. They hope for better things in the long term* rather than in the short term, and believe that they will be happier in 5-10 and 10-20 years than at present. They have a positive attitude to the future, especially as far as their own fate and the future of their loved ones are concerned.

The attitude of the samples of the Hungarian population to the future has changed since the change of regime: the more-or-less unconditional trust in a better future has subsided and people's doubts have intensified; the respondents see their chances for a better future as limited. Ervin László stresses that *a new way of thinking and acting is needed if we are to build an acceptable future: we either join forces or fall.* He asserts that each person can do something for the future and that *we can change the world* (László, 2002). István Kappéter hopes that *humankind can change the world* for the better (Kappéter, 2003). *No social modernization is possible without individuals and companies/enterprises, social institutions that have an open-minded attitude towards the future and wish to do something for it.* Ideas and proposals that differ from the conventional way of thinking are exceptionally important today. Only we can formulate the Hungarian peculiarities that our joining the global world implies and we are the ones most qualified to voice our interests. More than just receive, we must let as many parts of the world as possible have word of our achievements both on the individual and the corporate scale. *It is the creative thinkers and doers guided by a sense responsibility for the future that actually have or may have a future, those who keep adapting to their environment and are able to implement a qualitatively new future that is different from the one anticipated now.*

2. A GUIDING AND SOLID BASIS

2.1 "Factor four" as a guide to economic modernization

Self-organization is what can pave the way for economic modernization in Hungary. Small and medium-size enterprises as well as the small regions do not simply have to be kept afloat but must be *made viable* and an integral part of the whole economy. The solution should not come from above but should rely upon the means of the information society (e.g. e-business) to give a free rein to the future-shaping grassroots initiatives of small communities. This can allow new forms of activity (e.g. logistics) to surface and *the ideas of individuals and civil organizations promoting the development of the area and the larger region to materialise.*

One of the recent reports of the Club of Rome (Von Weizsacker, Lovins and Lovins, 1996) on doubling wealth and halving resource use may serve as a guide to economic modernization. *In other words, "factor four" may become the slogan of modernization.* "Factor four" does not mean the restructuring of the whole of the economy at the same time but *the implementation of "minor" changes in many*

areas, which can be accomplished through good organisation and attention to detail and together may produce a modernizing effect on the economy.

The authors offer fifty examples of "factor four" aimed at, among other things, increasing energy, material and transport efficiency. I believe many of the examples could be implemented in Hungary, too. Among them are the heating and cooling of superwindows with thermal insulation and no energy consumption, using bricks to build terraced houses, energy-saving tomato cultivation or energy and waste-efficient industrial production; all of which could be made part and parcel of economic modernization in Hungary, too. The burden on traffic can be eased, for instance, through videoconferencing to minimize travel, the use of community cars, the creation of "urban villages" where the dimensions and familiarity foster a sense of community. More favourable economic conditions can be achieved through efficient organisation and more attention to detail.

2.2 Future-oriented education as a solid basis for social modernization

We have seen that a future-oriented way of thinking and acting is indispensable if there is to be social modernization. *Future-oriented education* is of pivotal importance in achieving it. According to the conclusion of experts, education in most countries of the world is not future oriented, not open-minded. (Beare and Slaughter, 1993) In theory, *education is future oriented*, as it prepares the people of the future for the future, for work and for partnership relations; teachers are generally receptive to the future; subjects are usually "sensitive" to the future; and the information technology used in education provides variety and mobility.

In practice, however, education is not sufficiently future-oriented; as *the teachers themselves are not particularly future-oriented* (they often look back to the past and stick to the present because they fear conveying information and knowledge that is not yet crystallized). Thus if teachers are not adequately future-oriented, their methods will lack flexibility, lack the teaching of how to think for oneself, how to be creative and how to develop practical skills. Hence difficult pupils are looked upon as a "nuisance", and teaching becomes less open-minded. *The future orientation of subjects is insufficient, too*, because they offer "ready-made", crystallized tenets/knowledge. The connection between subjects often fails to manifest itself. *The equipment used in schools is not future-oriented enough, either*, as computers are usually not up to date, schools are not equipped on the same level and access to computers varies from school to school. Short-term thinking and the weakness of future-orientation in education/training *do not spur the renewal of education and training.*

All this has to be improved if the attitude to the future of individuals, social institutions and civil organisations is to become receptive, responsible and community oriented. It is important that the future-orientation of teachers increase, that there be a shift in attitudes and values, that educational programmes become more open, that education follow

creative curricula, that theoretical and practical training be in harmony and that life-long teaching/learning be the norm (Education - The Hidden Treasure, 1997). The formation of a new type of human being (who is willing to learn, is creative, knows about information technology, rises to the challenge and is an achiever) is a must, as is the creation of a homogeneous knowledge industry as well as the boosting and sustaining of cutting-edge education.

The so-called *partnership education* programme (Eisler, 2002) may be the right path to follow to this end. The gist of this programme is that it integrates three interrelated “core” components: partnership process (how to teach and learn), partnership structure (where to teach and learn) and partnership content (what to teach and learn).

Partnership process provides guidelines as to what educational methods and techniques should be used. It focuses on whether students actually do learn, whether they are cooperative or competitive, whether teachers are knowledge-robots and controllers or mentors and facilitators. It is important that students and teachers be in a partnership relation in the meaningful adventure of discovery and learning. *Partnership structure* means that students and teachers participate in school decision-making and collaborative planning. It is of the utmost essence that the spatial environment of learning not be beset by fear and not be hierarchically structured but be characterised by horizontal relations and the hierarchical order of implementation where power is used to empower others.

Partnership content means that the curriculum/syllabus is instrumental in developing students’ theoretical and oral skills, in granting abilities necessary in life for them to become competent workers, parents and members of the community. The syllabus should, by all accounts, prepare students to become responsible, non-violent adults. Emphasis is placed on teaching material being of substance and of truth for men, women and children of different ethnic groups alike.

Partnership education, as a form of *future-oriented education*, can enrich life experience, can improve the state-of-the-art process of learning, critical thinking and future-orientation. Therefore, future-oriented education is of particular importance in societies undergoing transformation, because as a way of thinking acquired in this framework, it may provide a new impetus to a novel way of evaluating the past and sheds new light on a favourably shapeable future.

CONCLUSIONS

Both preconditions for socio-economic modernization – the changeability of economic processes and the future-orientation of individuals – are more or less present in Hungary. This grassroots initiative ensures favourable conditions for linking economic and social modernization, for which the formal framework is provided by the EU and the content by us.

REFERENCES

- BEARE H. AND SLAUGHTER R. (1993) Education for the twenty-first century, *London and New York, Routledge*
- BÉLYÁ CZ I., BEREND I (EDS) (1997) Az ezredforduló utáni magyar gazdaság I. kötet „A társadalmi és gazdasági környezet (az európai integrációt is érintve) az ezredfordulón”. (The Hungarian Economy After the Turn of the Millennium, Volume One – The Social and Economic Environment (Including European Integration) at the Turn of the Millennium) *Janus Pannonius Egyetemi Kiadó, Pécs*
- BEREND I. (2002) Gazdasági növekedés (Economic Growth), *Pécsi Tudományegyetem Kiadó, Pécs*
- EISLER R. (2002) Partnership Education for the Twenty-First Century, *J. Gidley and S. Inayatullah (eds): Youth Futures, London, Praeger, Westport, Connecticut, pp. 43-51.*
- KAPPÉTER I. (2003) Az emberiség képes jóra változtatni a világot. (Humankind Can Change the World for the Better), *Püski, Budapest*
- KOPP M., SKRABSKI Á. (2002) A magyarság társadalmi és erkölcsi tőkéje (The Social and Moral Capital of the Hungarians), *Valóság 9, 11-19*
- LÁSZLÓ E. (2002) Meg tudod változtatni a világot (You Can Change the World), *Magyar Könyvklub, Budapest*
- NOVÁKY E., HIDEG É. AND KAPPÉTER I. (1994) Future orientation in Hungarian society, *Futures 7. 759-770.*
- NOVÁKY E. (ED) (1995): Káosz és jövő kutatás (Chaos and Futures Research), *BKE Jövő kutatás Tanszék, Budapest*
- NOVÁKY E. (1997) A káosz mint növekedési háttértényező (Chaos as a Background Factor to Growth) In: Bélyá cz I., Berend I (Eds) (1997) Az ezredforduló utáni magyar gazdaság I. kötet „A társadalmi és gazdasági környezet (az európai integrációt is érintve) az ezredfordulón”. (The Hungarian Economy After the Turn of the Millennium, Volume One – The Social and Economic Environment (Including European Integration) at the Turn of the Millennium), *Janus Pannonius Egyetemi Kiadó, Pécs, pp. 261-284.*
- Oktatás-Rejtett kincs (1997) A Jacques Delors vezette Nemzetközi Bizottság jelentése az UNESCO-nak az oktatás XXI. századra vonatkozó kérdéseiről, *Osiris Kiadó, Budapest – Magyar Unesco Bizottság (Education - The Hidden Treasure, Report by the International Committee headed by Jacques Delors to UNESCO on issues related to education in the 21st century)*
- VON WEIZSAKER E., LOVINS, A.B. AND LOVINS L.H. (1996) Négyes faktor. Kétszeres jólét a természet igénybevételének felére csökkentése mellett, A Római Klub beszámolója. (“Factor Four. Doubling Wealth - Halving Resource Use”, A Report of the Club of Rome)

Zusammenfassung

Der Autor betont in seinem Studium, dass heutzutage in Ungarn sowohl die wirtschaftliche als auch die gesellschaftliche Modernisierung wichtig ist. Zur wirtschaftlichen Modernisierung bildet die Möglichkeit der Änderung von gesellschaftlich-wirtschaftlichen Prozessen die Voraussetzung, während zur gesellschaftlichen Modernisierung die zukunftsformierende Kraft. Die Möglichkeit der Änderung von gesellschaftlich-wirtschaftlichen Prozessen kann durch Stabilitäts-/Instabilitäts-Analyse geprüft werden, dagegen die zukunftsformierende Kraft durch die Zukunftsorientierung der Individuellen und gesellschaftliche Organisationen. Zur wirtschaftlichen Modernisierung kann der „Vierfaktor“, zur gesellschaftlichen Modernisierung der zukunftsorientierte Unterricht Anweisung bieten.

Összefoglaló

A szerző tanulmányában hangsúlyozza, hogy napjainkban Magyarországon egyaránt fontos a gazdasági és a társadalmi modernizáció. A gazdasági modernizációhoz a társadalmi-gazdasági folyamatok változtatásának lehetősége, a társadalmi modernizációhoz a jövőformáló erő jelenti az előfeltételt. A társadalmi-gazdasági folyamatok változtatásának lehetősége stabilitás/instabilitás elemzéssel vizsgálható, a jövőformáló erő az egyének és a társadalmi szervezetek jövőorientáltságával „mérhető”. A gazdasági modernizációhoz a „négyes faktor” adhat útmutatást, a társadalmi modernizációhoz pedig a jövőorientált oktatás, képzés nyújthat szilárd alapot.