

Articles

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THE WORLD, THE EUROPEAN UNION AND POLAND IN 2050 – REFLECTIONS ON THE PARADOXES OF FUTUROLOGY

Abstract

Based on selected papers from the Newsletter of the Polish Economic Society No. 2(61) from April 2013, titled “Paradoxes of the futurology of 2050”, the author pictures the overall context within which Polish agriculture will operate in 2050, and encourages the study of papers in futurology. The future condition of agriculture will depend on global demographic change, climate-change related weather phenomena, the rising costs of substitutes that re-place the dwindling natural resources, the evolution of the structures and ways of functioning of the European Union, and the continued growth of the national economy.

Keywords: futurology, capitalism, global consumption, global population, consumerism, agri-food products, food economy

Introductory note

The primary focus of authors in the *Problems of Agricultural Economics* quarterly is economics related to farms, broadly understood agriculture and food economy. These problems are viewed through the lens of national economy, while those connected with imports or exports of agri-food products also in the EU or global contexts. But such knowledge shall not suffice in modern world, one should look forward, using a reflection of futurological nature for the purpose. The process could be assisted by studies included on the special edition of PES Newsletter, No 2(61) of April 2013, entitled “Paradoxes of futurology of 2050”.

We perceive our reality as something highly complex; a number of phenomena and process are mentioned, which comprise reality now and will shape it in the future. From among them, the PES Newsletter awards the first place to anarchisation of the global order resulting from the collapse of the order shaped by the coalition of countries, which had been victorious in the Second World War (Mączyńska E., Kukliński A., 2013). There are other authors however, which grant this place to strengthening impacts of the climate change (Kundzewicz Z.W., 2013; Leggewie C., Welzer H., 2012). However, the sequence and weight of factors is not important – these and others shall define the living conditions of the next generation of humans. The task of futurological reflection and forecasts in such a situation is to diagnose risks and provide early warnings, as well as to detect emerging opportunities and sources of future development at an early stage.

Futurology is a specific kind of a system, combining ways of collecting information, knowledge, imagination and the will to predict the future. But even having all these components shall not free us from uncertainty about the future. J. Randers has written about it in a different way¹. In his opinion it is not possible to present a scientific forecast in the sense that a specific prediction will materialise in a given time horizon with a specific likelihood. However, on the basis of available facts it is possible to formulate well thought out conclusions referring to a defined future, which shall be internally consistent.

This article presents content included in studies coinciding with the views of the author, selected from the thirty contributions comprising the PES Newsletter. Studies stunning readers with the dark side of the vision of the future have been dropped. This is because since the book on mind traps was published (Kahneman D., 2011) it has been known that in conditions of uncertainty people are subconsciously (intuitively) focus on phenomena that could pose risk. However, this could be counteracted by so-called free thinking, deliberately waiving the impact of intuition. The studies taken from the PES Newsletter are not directly related to agriculture, but provide a perspective on broadly understood conditions, in which agriculture and food economy as a whole shall (possibly) generate agri-food products in the middle of the present century.

¹ The views of this author have been taken from a study (Aulaytner J, 2013a), whose author refers to a book by J. Randers: *A Global Forecast for the Next Forty Years, 2052. A Report to the Club of Rome Commemorating to the 40th Anniversary of the Limits to Growth*, Chelsea Green Publishing, USA, 2012. Randers was one of four authors of a 1972 book broadly commented across the world, “*The Limits to Growth*”, as well as co-author of futurologic work entitled “*Global Collapse or a Sustainable Future*”, which had been published in Poland in 1995.

World 2050²

The situation of the world in 2050 has been presented according to J. Randers. He considers the issues related to the future of the world in the light of: uncontrolled capitalism, economic growth, democracy slow about taking vigorous action, erosion of inter-generation harmony and the climate change. These issues shall be presented later.

For centuries **capitalism** has brought success, shown substantial capacity for adaptation, but at the same time – left uncontrolled – led to concentration of wealth in the hands of a few (see Table). For at least two hundred years countries getting richer due to implementation of industrial, and then scientific and technological revolution, have been exploiting other countries. It concerns access to raw materials, storage of harmful waste, so-called brain drainage, etc. When it comes to civilisational development, already today some African countries are lagging by around 80 years behind those most developed. Even if progress is made in poor countries, on many occasions it is “a by-product” of actions bringing much more benefit to rich countries.

Table 1
The initial potential of 2052 forecast according to Jorgen Randers (2012)

Countries or groups	Population (million)	Share (%)	GDP	
			total (USD billion)	per capita (USD)
USA	310	4.5	13,000	41,900
OECD countries w/out USA	740	10.7	22,000	29,700
China	1,350	19.6	10,000	7,400
BRISE countries ^a	2,410	34.8	14,000	5,800
Other countries ^b	2,100	30.4	8,000	3,800
Total/average	6,900	100.0	67,000	9,600

^a Brazil, Russia, Indonesia, South Africa and a group of around 20 independent countries.

^b Rest of the world, i.e. around 150 least and medium developed countries.

Source: According to Aulaytner J., 2013.

There is a conflict of interests across the line: the poor – the rich. The rich will want to retain their status, while the poor will try become rich in all possible ways, including through theft, terrorism or wars (Aulaytner J., 2013b). Delayed and unsatisfactory reaction of a more conscious part of humanity to shortcomings of capitalism will thus have an impact on global development for the next 36 years. However, in the book by Randers there is a statement about emergence

² The contents of this chapter refers to the study of J. Aulaytner, while footnotes provide information on departures from this principle.

of a block of countries, which will create space for cooperation and improvement of human lives, modelled on the European Union.

Parliamentary democracy – like capitalism, has brought success for a long time and demonstrated a high adaptation potential, but now citizens of economically developed countries feel that their life situation fails to improve, as many agreements and consultations dressed in bureaucratic procedures slow down decision making processes in individual countries. What makes things worse – things calling for immediate action are delayed, as decisions are blocked by conflicting interests. Democracy, after tens of years of existence, begins to limit effectiveness of functioning of countries characterised by this regime, despite the fact that vigorous actions of the state are necessary to protect collective interest against interests of groups.

Thus, interests of countries and social groups are an important category in future studies. Being aware of these interests however, should not eliminate utopian thinking, as it “humanises” these interests, showing better tomorrow. The outcome of such thinking may thus become a conscious objective of individuals and entire societies (Aulaytner J., 2013b). One should expect that in the middle of this century countries shall not be autocratic, but shall be more effective in their activities than they are now.

J. Randers believes that in the middle of the century the rate of increase of **global consumption** of human population shall decrease due to increasing share of investments in global GDP. One of the reasons for this negative phenomenon shall be the necessity to rebuilt damages caused by hurricanes and floods, as well as strengthening of diseases and pest invasions as a result of climate change caused by growing emissions of greenhouse gases, as well as progressing degradation of the environment. This shall be exacerbated by the impacts of production of more expensive substitutes because of increasing deficit of natural resources.

Global population will fall into stagnation earlier than expected (according to a well documented UN forecasts. In 2050, 9 billion people shall live on Earth). The reason is decreasing fertility of women in fast growing urban population (in the last 40 years the birth rate shall decrease from 4.5 per women to 2.5, and in the middle of the century it will be near 1). As a result already before 2040 the population shall be 8.1 billion and shall start to decrease, to reach the level of around 7 billion persons in 2075. Therefore, the pressure on further increase of agricultural production shall be limited.

Life expectancy has already exceeded 80 years in several richest countries and persons born in 2013 have a chance to live up to 100 years with the progress of medicine we witness. So there will be an asymmetry in the proportion of persons professionally active and retired. One could expect that this inter-generation conflict shall be channelled politically.

It is possible that we shall see **a departure from the culture of consumerism** towards spirituality, while competition and elimination of the weaker shall

be replaced by the culture of cooperation and pursuit of compromise solutions, there shall also be increased respect for multi-culturalism.

The world of 2050 shall be bipolar – USA and China. However, a view on this issue formulated by a Muslim, a resident of China or India may emphasise other accents and point to different solutions. K. Mahbubani – the dean of Lee Kuan Yew School of Public Policy at the National University in Singapore (an Asian equivalent of Z. Brzeziński) is convinced that limitation of the omnipotence of the United States shall be spread over decades, while in parallel the concept of the need for coexistence of West and East as the new global order shall be spreading (the idea of China as a hegemon is unacceptable to many Asian countries) (Mączyńska E., Kukliński A., op. cit.).

European Union 2050³

The European Union is primarily united around the idea of permanent growth and subsequent stages of European integration, as well as theory and practice of mid-term programming as an instrument of its functioning (Kukliński A., 2013a). The Union has managed to solve the problem of food security and increased competitiveness through ensuring freedom of economic activity and movement of persons, capital and services across the national borders. EU activities targeted at mitigation of unfavourable impacts of climate change are broadly known and recognised. The process of bringing the quality of life of poorer and richer countries of this grouping to the same level progresses. Furthermore, Community Directives and Regulations are observed in the Member States in an increasing extent. The principles of monitoring, control and evaluation are also recognised.

However, over the past two decades the Union was the slowest developing part of the world⁴. It was not possible to solve the problem of migrating job seekers, the Lisbon Strategy, which was to ensure global economic supremacy of the European Union failed as well. Moreover, the recent economic crises showed that EU mechanism related to introduction of common currency did not prevent serious irregularities.

The European Union is affected by defects of this regime even to a greater degree than any other democracy in the world. Important reasons for failures of the Union include (Kukliński A., 2013b):

- loss of capacity to generate breakthrough innovation (Europe invented Norfolk four-field crop rotation, steam engine, combustion engine, electricity, but not computers, PC, Internet, etc.);

³ This chapter of the article has been drafted on the basis of the study (Żuber P., 2013). Footnotes provide information on departures from this principle.

⁴ Information provided according to the study (Woźniak J., 2013), the author of which invokes the opinion of W.M. Orłowski. The study (Binswanger H.Ch., 2011) states that the reason for this phenomenon is outflow of capital to developing countries, where remuneration is significantly lower than in economically developed countries.

- hedonistic thinking replacing strategic thinking among EU citizens;
- absence of the will to transform European Union towards retaining its position as a real player in the global scene;
- lost spiritual identity, or else – absence of the will to promote and develop fundamental values of European civilisation.

However, the EU centre inspires and finances diverse interdisciplinary studies, which suggest solutions related to the future increasing knowledge on successes and failures of this grouping. In 2012 the report “Global Europe 2050” was published, commissioned by Directorate General for Research and Innovation of the European Commission in Brussels. The report is the outcome of the work of a group of scientists of different specialisations and countries of origin. They drew from achievements of other researchers and studies of international institutions – United Nations, World Bank and others. The objective of the report was to provide a comprehensive vision of the future of Europe in 2050, in order to take the findings into account when making decisions today.

The work on the report started with predictions on the development of the world until 2050 in the aspects of: demography, climate, economy, technology and politics. The vision of the world in 2050 formulated on this basis provided premises for formulation of the vision of development of the European integration process. This problem was considered on the basis of ten development scenarios, of which three were presented in the report in an in-depth manner. The first of these characterises the status if European Union integration in 2050 assuming stagnation of this process (EU shall continue developing on principles in place now), the second is the result of future intra-EU disputes, while the third consists in continuation of the process of European integration and leads to the renaissance of the grouping.

The implementation of the scenario envisaging the renaissance of the European Union shall call for action facilitating:

- increased productivity and innovation thanks to imported labour force, mitigation of the trend of ageing of the population and building of open European society;
- improved energy efficiency, generation of the so-called clean energy and reduction of greenhouse gas emissions through modification of lifestyles and introduction of relevant technologies;
- development of a new world order, including through international coordination of attempted projects, introduction of global regulations between EU and its economic partners or even at the global level, introduction of a single currency across the world, or – alongside dollar and Euro – a third global currency: Asian currency;
- exploitation of new opportunities for expansion of European industry and development of new forms of employment and work;
- further technological development, primarily in generation and saving of energy, as well as eco-, nano-, bio- and infotechnologies, and within the devel-

opment of infrastructure – construction or modernisation of railway connections, and – to a lesser extent – roads, etc.;

- preserving the nature of European space, with a key role of medium sized cities, well connected with transport networks;
- modernisation of the science sector (common principles and procedures, financing also from public sources) and communication with local, European and global community.

The authors of the report are convinced that implementation of the above scenario shall facilitate strengthening of internal political, fiscal and military consolidation of the Union. Thanks to this and to common scientific and innovation policy the Union shall be able to successfully compete with other players in global markets. The integrating Union shall also be able to have an influence on the global situation, speaking in one voice in international fora on issues close to Europeans, e.g. promotion of democracy, counteracting negative impacts of climate change, global security, enforcement of human rights, rule of law, etc.

The report was presented and discussed at a conference organised by DG Research and Innovation at the end of 2011 and its impact is noticeable. Cautious assessments show that action taken in connection with the Strategy EU 2020, formulated 4 years ago, indicates that the integration scenario generally close to the one presented above is beginning to be implemented.

Poland 2050⁵

It is a well-grounded opinion that the modernisation leap of Poland, which took place over the past two decades, had an imitational (dependent) nature and to a large extent was implemented with the use of not only social models taken from abroad, but also with foreign capital and funds from the budget of the European Union. Nevertheless Poland is still characterised by low share of high technology products in exports of companies with dominating national capital, under invested and not fully used labour resources.

We still have more or less a dozen years to improve this situation and achieve the average level characteristic for the countries of the so-called old Union (Woźniak J., 2013). However, bold strategic decisions are necessary here. Undoubtedly, decisions most important for a state should not only draw on historical experiences and assessment of the present situation, but also on a vision⁶ of the future. A vision, which would be a comprehensive picture of future reality “in which scientific and ideological factors are made [...] subordinate to emotional content, components which are unverifiable, but mobilise [...] to action”. In Poland however – contrary to for example Finland – this third type of determinants for strategic

⁵ To a large extent this part of the article has been drafted on the basis of (Kleer J., 2013). Subsequent footnotes provide information on departures from this principle.

⁶ Definition of J. Szczepański taken from (Wilkin J., 2025).

decisions is not treated on equal terms with others. To make things worse – there is no pro-growth vision that would be shared by at least a majority of citizens of the country. There are in fact future studies published in several scientific centres, but there has been no broad and uniform front to show to the political class that there is a need to formulate a vision, which would give direction to activities of a growing number of persons distinguished by active, pro-growth attitudes.

The desired growth of the level of economy and the level of life of Polish citizens shall require a civilisational leap comprising three components: emergence of creative society, building of economy based on up to date knowledge, as well as increasing effectiveness of the state trusted by the public⁷. Then it will be easier to face challenges related to climate change, ageing population and possibly other problems.

Emergence of creative society. This requires fulfilment of four conditions: modernisation of the education system, development of research and development sector, development of modern communication means and substantial supply of workers with higher education.

Following is a more detailed characteristics of the first three:

- Modernisation of the education system should consist primarily in: elimination of its present defects (i.e. reduction of the number of experiments of organisational nature, unfavourable proportion between the number of students and the number of academic teachers, etc.); stabilisation of the system (reforms only to enrich it); continuous improvement of knowledge of teaching staff at all levels; dissemination of knowledge among the public in all available ways and creation of equal opportunities for all, particularly children and youth (and this is from a kindergarten to a university).
- Development of the research and development sector depends primarily on increased spending on research and development (presently expenditure for this purpose does not exceed 1/3 of amounts recommended in the Lisbon Strategy, which indirectly results in a situation, where the number of doctoral students per 100 thousand residents is several times lower than in Sweden, Finland or even Czech Republic. The advancement of the research and development sector is to ensure creation of national innovation, which is to primarily serve the development of local economy.
- Common access to modern means of communications, and through them, to knowledge, apart from having a positive side, may also work to the contrary. This is because it facilitates accumulation of fragmented, disordered knowledge and presentation of views making it difficult to breakthrough prejudice of various types and to overcome barriers hindering social and civilisational progress.

⁷ This idea has been taken from the study of J. Woźniak (op. cit.), where the author invoked the statement of A. Kukliński.

Development of modern economy includes: expansion and modernisation of infrastructure, reduction of regional disparities, development of stabilising system and management of the research and development sector. Below, a short characteristic of each of components listed above has been provided:

- Expansion and modernisation of infrastructure is to ensure efficient flow of inputs (human resources in particular) and elimination of income and civilisational disparities between regions and within individual regions.
- Reduction of disparities between regions and within individual regions shall additionally require support from the state targeted at ensuring growth of social and human capital and development of small and medium enterprises. Owners and management of these companies and the group of creators shall develop local middle classes. Regions without own resources should get additional support from the state in the form of concessions and subsidies.
- The stabilisation system should: facilitate counteracting unfavourable changes in domestic, EU or global economy in turbulent conditions; prevent excessive borrowing of the state and local self-governments and protect domestic economy against speculative manipulations of financial capital, particularly foreign.
- Management of the innovation sector consists in: ensuring financing of the sector, influencing proportions between public and private funds, regulating protection periods for patents, protection of intellectual property, development of clear strategies for future changes in these areas, etc.

Efficient state enjoying trust of the public is a third important component of the civilisational leap to be faced by our country in the next dozen or so years. In order for the Polish state to obtain these feature, fulfilment of three conditions is necessary.

- Finding the platform for consensus in taking strategic decisions because of diversified visions of future of Poland among Polish citizens. Some of them are characterised by hostility towards “others”, people with differing political views, other nationality, religion or skin colour. It is a contradiction of attitudes, which are needed in persons responsible for continuation of deep reforms in the country, attitudes targeted at thinking in terms of future and open to diversity. The essence of creativity is in pursuit of things, ways to act and ideas, which have not existed so far, and in verification of their usefulness in new conditions, while circumstances conducive to emergence of creative attitudes include cultural diversity brought about by diverse: religions, nationalities, experiences passed on by parent and grandparents, etc.
- Ensuring internal consistence of state institutions with legal solutions. This will be difficult, as the national legal system is complex and partly contradictory – for both internal and external reasons, as well as because of institutional entanglements resulting from Polish presence in the EU and other international agreements.

- Change of relations between representatives of state agencies and citizens to more partnership based. It is about pursuit of more citizen friendly solutions, related to ensuring broadly understood safety and security and health care. Moreover, activities of agencies of Polish state should be transparent to citizens (or at least to their representatives) and be characterised by goodwill towards business operators and households, as well as the greatest possible extent of stability.

In conclusion it is worth mentioning that accuracy of suggestions on the condition of the world, European Union and Poland in 2050 presented in this study is presently unverifiable. This accuracy shall obviously be subject to more and more precise verification with the set time horizon coming closer and closer. Some of the readers will have an opportunity to precisely verify this accuracy, if they happen to remember the content of this article 36 years after they have read it. It shall be more important however, whether this article encourages them to study the articles comprising the special edition of the PES Newsletter, No 2 of April 2013, entitled “Paradoxes of futurology of 2050”. It is worth remembering the opinion of J. Randers, quoted more than several times, that predictions satisfy curiosity, as well as facilitate provision of an individual answer, whether we should worry about the future and what should be done to improve the odds of having a better life. Apart from that Randers is convinced that predictions shall make it possible for some people to invest with profit and to show to others new actions, which could bring better results in politics, law making and in public institutions.

PES Newsletter provides conclusions related to national agriculture. If the European Union continues to improve the mechanism of its functioning and Poland does not stop at what it achieved economically so far, but proceeds with the development of its economy, the process of “sucking” the workforce out of agriculture shall accelerate, because other sectors of national economy shall be short of people in productive age. So, in terms of numbers, farms with medium and high concentration of production shall dominate. The demand for agriculture products shall continue to exist around 2050, despite the decrease of human population, which shall begin a little earlier. Therefore the consumption shall be smaller, but also the losses of crops will be higher due to increased frequency of extreme weather phenomena.

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