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In Search of the Present Economy and Society Modernisation Concept (An Attempt to Explain the Main Problems)

W poszukiwaniu koncepcji współczesnej modernizacji gospodarki i społeczeństwa (próba eksplikacji głównych problemów)

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Abstract
The concept of modernisation is the most important concept of social sciences. Modernisation refers to evolutionary transformations of a traditional society into a modern one. The following stages of modernisation process can be distinguished: evolutionary modernisation, technocratic modernisation (based on comprehensive possibilities to implement new technologies into economy and society), and reflexive modernisation. The concept of technocratic modernisation idealizes the role of engineering and automation, and presently also of the computerisation of society. The reflexive modernisation, on the contrary, emphasizes critical evaluation of the present modernisation advancements; there are problems that have not been solved by the technocratic modernisation. The discourse on technocratic modernisation and reflexive modernisation is of great importance for Poland. In this country technocratic modernisation is still dominant, as there have been only modest successes in implementing sustainable development. However, the future of Poland depends on development of reflexive modernisation throughout all the socio-economic domains.

Key words: reflexive modernisation, technocratic modernisation, evolutionary modernisation; sustainable development; demand economy, supply economy, sustainable development economy

Streszczenie
Koncepcja modernizacji należy do najważniejszych koncepcji nauk społecznych. Modernizacja oznacza ciąg zmian ewolucyjnych społeczeństwa tradycyjnego w społeczeństwo nowoczesne. Można wymienić następujące fazy procesu modernizacji: modernizację ewolucyjną, modernizację technokratyczną (opartą na wszechstronnej możliwości wprowadzenia nowoczesnych technik i technologii do gospodarki i społeczeństwa) oraz modernizację refleksyjną. Koncepcja modernizacji technokratycznej absolutyzuje znaczenie mechanizacji i automatyzacji, a obecnie informatyzacji społeczeństwa. Natomiast modernizacja refleksyjna podkreśla krytyczną ocenę dotychczasowych osiągnięć modernizacji. Nie zostały one rozwiązane w ramach modernizacji technokratycznej. Spór wokół modernizacji technokratycznej i refleksyjnej ma duże znaczenie dla Polski. W Polsce dominuje nadal modernizacja technokratyczna, o czym świadczą nikłe sukcesy w zakresie wprowadzenia koncepcji zrównoważonego rozwoju. Przyszłość Polski zależy jednak od rozwoju modernizacji refleksyjnej we wszystkich zakresach gospodarki i społeczeństwa.

Słowa kluczowe: modernizacja modernizacja refleksyjna, modernizacja technokratyczna, ewolucyjna, zrównoważony rozwój, ekonomia popytowa, ekonomia podażowa, ekonomia zrównoważonego rozwoju

Introduction

The concept of modernisation is one of the most important concepts in social sciences as well as in economics and political sciences. Modernisation refers to a specific sequence of transformations from a traditional society into a modern society. The latter are represented by Western European countries, the USA, or Japan, while the former are perfectly exampled by the industrially underdeveloped Third World countries (the peripheries of the world-system, according to I. Wallerstein's theory, 1974, 1980, 1988). The concept of sustainable development should be examined in relation to modernisation issues, but only in relation to reflexive modernisation. Otherwise, it is difficult to place it in the contemporary social and ecological thought.

Nowadays, three kinds (phases) of modernisation can be distinguished. Following P. Wehling (1991), these are: evolutionary modernisation (dominant in the 20th century, based on hegemony of the idea of progress), technocratic modernisation, and reflexive modernisation (also called ecological modernisation). This paper is an attempt to indicate the basic challenges to reflexive modernisation in the present state of the global economy and the requirements of sustainable development.

Basic modernisation models

Already in the early 20th century, G. Simmel (1918) identified disappearance of traditional social relations, urbanisation, and individualisation as features of modernity (*Moderne*). Modernisation refers to disappearance of social bonds at a local community level and of the traditional ways of farming and living, which additionally is related to a lack of bonds with the surrounding environment and the belief in the possibility of subordinating and controlling nature.

According to P. Gross, the so-called *enjoying life multi-option societies* are dominant at present (Gross, 1994, p. 3). They are based on the modernisation triad: disappearance of traditional forms of social life, an increase in the number of choice options, and increasing individualisation. The market economy, being a competitive economy, permanently stimulates and forces new differences and needs. Transnational concerns together with their huge supplier and customer chains have become the main centres of modernisation.

In social sciences, modernisation is treated as a general formula for measuring social development; simultaneously it is considered to be the universal measure to overcome social, economic, and ecological crises. The present theories regard Western societies, which are highly developed in terms of technological advances, as modern ones. Moreover, the collapse of the centrally-planned real-socialism economy and its transformation into the market economy are interpreted as delayed modernisation following the Western patterns. The situation in Central and Eastern Europe as well as democratic trends in most developing countries, particularly technological development of the so-called *small Eastern Asia tigers*, are believed to confirm scientific advantages of modernisation theories.

However, modernisation theories frequently ignore the social dynamics of industrial and capitalistic societies, defining their development in the general terms of modernity or global trends, which are similar in all societies. The above naturalistic as well as normative assumptions on the exclusive rationality of the Western societies discourage social criticism of the present situation in economically developed countries (Wehling, 1991). Therefore, according to H. Schnädelbach (1989), modernity can be considered to be a social myth. He understands the idea of social myth as rendering social processes and phenomena into simple social notions, such as modernity.

A specific normative pattern of modernisation in social sciences has become hegemonic since the work of T. Parsons, though it was initiated by M. Weber (Schnädelbach, 1989, p. 25). Their theoretical concepts are kind of non-reflective generalisations of the previous rationality criteria of the Western development model. In T. Parsons' theory of social evolution, which was compared to the process of adaptation in biological evolution, the previous tendency to identify modernisation with the *status quo* of the Western developed countries, was challenged. Despite attempts to create the universal paradigm of social evolution, the idea of T. Parsons closely related to the post-war Western societies, has remained prevalent. It is based on the assumed harmonic view of modern industrial Western societies, the so-called *evolutionary modernisation* (Szczepański, 1999, p. 268).

The hegemony of modernisation is presently widely accepted in social sciences as well as in social life. However, the explanation of the notions of modernity or modernisation is mostly restricted to the Western rationalism. Modernisation seems to be an intended rationalisation, which in particular areas of activity serves as *disenchantment of the world*, or – in terms of the modern social sciences – *functionally differentiated social system*, or *detraditionalization of lifeworld* (Habermas, 1988, p. 234). Modernisation is usually treated as a process of changes based on its own logic, which itself does not need justification; in many modernisation theories, the modern cult of novelty is related to social evolutionism.

Modern societies are dominated by economy aimed at profit maximisation, technocratic policy, as well as by science and technology focused on the control of nature (Kośmicki, 2004, 2005); the latter provide the knowledge and means for economic and political bodies to manipulate the environmental deter-

minants. In industrially developed societies, the interests and rationality pattern exchanges between economy, science, and politics are increasingly interrelated. They determine the basic structure of social modernisation, while other structures and actions are under the overwhelming pressure of changes.

The 80s of the 20th century mark the beginning of the second wave of modernisation theories. According to them, crises were only side effects of modernisation and they could be overcome by continuing modernisation of modern societies. Three main variants of this process were identified, namely: technocratic, ecological, and reflexive modernisation (Wehling, 1991).

According to the above, the following three kinds or phases of the modernisation process are distinguished:

- evolutionary modernisation – based on overall development of technology, economy and science (accepted since the beginning of modern times);
- technocratic modernisation – the present modernisation phase based mostly on the computerization of society and corporate property domination (large concerns);
- reflexive modernisation – criticism of modernisation achievements, emphasising ecological and social problems resulting from the present progress of modernisation.

Present societies of both economically developed and developing countries are usually defined as *world risk societies* (Beck, 2002); the production of social wealth is connected with socially produced risk. In risk societies, technical catastrophes are commonplace; Ch. Perrow (1989) coined the term *normal accidents* to describe accidents resulting from the use of so called highly advanced technologies. Therefore, nowadays *a genuine and systematically intensifying contradiction arises between the profit and property interests that advance the industrialization process and its frequently threatening consequences, which endanger and expropriate possessions and profits (not to mention the possession and profit of life)* (Beck, 2002, p. 10). Apart from numerous regional and local threats, there are many manifestations of the global ecological crisis.

So far, the global economy has not come up with adequate mechanisms of social and political control. Thus, it is developing spontaneously, which results in many ecological, social, and health threats, leading to a global risk society. The present globalisation is economically determined; and economic competition has many negative economic, socio-cultural, and ecological effects. U. Beck claims that *the imperceptibility of hazards, their dependence on knowledge, their transnational character, 'ecological expropriation', the switch from normalcy do absurdity etc. – reads like a flat description of the present after Chernobyl* (translation from the German version of Preface by Heise, 2008, p. 191). In the high-tech modernity, social production of wealth is correlated with socially produced risk. Following U. Beck, it can be said that *in the modernisation process, more and more destructive forces are being unleashed, forces before which the human imagination stands in awe* (Beck, 1992, p. 20).

The contradictions between risk avoidance and economic or consumption interests are present in all dimensions of social activity. Moreover, the former, sooner or later will affect those who benefit from the latter. The present modernisation activities damage the environment as well as the health of consumers: *cooking and eating are becoming a kind of implicit food chemistry, a kind of witch's cauldron in reverse, meant to minimize harmful effects. Here quite extensive knowledge is required in order to use 'nutritional engineering' to play a little private trick on the overproduction of pollutants and toxins in the chemical and agricultural industries* (Beck, 1992, p. 35).

The development of the present industrial society increases a risk of various catastrophes happening on a previously unimaginable scale. This refers to everyday destruction of the environment, which leads to the extinction of species and forest damage, as well as to major technological disasters, such as Chernobyl, Bhopal, Soveso, Sandoz, or recently Fukushima[1]. The methods of examining the contemporary technological systems used so far, provoke fair criticism, particularly of social scientists.

There are often unexpected failures of the contemporary complex technological systems resulting in normal accidents which are the risk factor of high technology. Some technological systems are inevitably bound to unexpected catastrophes. T. Perrow (1989) devised a very clear and transparent set of characteristics of vulnerability to disasters and accidents, coupled with the classification of failure levels and their effects. The key notions of his theory are complexity and coupling (Perrow, 1989, p.

[1] On 12 March 2011 following electrical supply interruption and the cooling system crash, the Fukushima reactor core began to overheat causing meltdown of three of the six reactors. The problems resulted from the tsunami following the earthquake on 11 March 2011. Japanese officials of the Nuclear and Industrial Safety Agency (NISA) classified the total amount of released radioactive contamination – on the International Nuclear Event Scale – as a highest level 7 event (*major accident*). The total amount of released radioactive contamination in Fukushima was assessed at about 1760 tons, while in Chernobyl it was 180 tons! The consumption of vegetables as well as rice cultivation from the Fukushima region has been restricted; and the radioactive iodine has also been found in drinking water in Tokyo. Mitigation of the aftereffects of the earthquake, the tsunami and the crash of the nuclear plant will take the next few decades (Hamm, 2011, p. 378).

27). The more complex the technological system and the more tightly coupled its components, the more vulnerable to unexpected failures and accidents it is. When high complexity and tight coupling are immanent properties of a technological system, then failures of its components are unavoidable, and so, in a way, normal. The combination of the above properties is most characteristic for technological systems of nuclear weapons, nuclear plants, bioengineering, marine transport, chemical industry (particularly petrochemical one), aircraft and airways systems, and tankers.

High complexity of interactions and tightly coupled technological processes lead to situations which have been unknown so far. Nevertheless, the idea of evolutionary modernisation in social and technical terms is ubiquitous. This is caused, among other things, by a narrow approach to a scientific and technological progress as well as stressing the necessity for continuing modernisation (Altvater, 2006, p. 5).

Main reasons of the technocratic modernisation continuity

The contemporary development of new forms of capitalism, particularly globalisation, can be defined by axis time (Jaspers, 2006). Generally speaking, globalisation means that all countries, despite their differences, gradually create a planetary socio-economic and ecological unity. Globalisation refers to the expansion of social interdependence of economic activities beyond national borders to gradually take on the global character. Economic globalisation is a process that increasingly tightens the markets and production of different countries. Moreover, globalisation is not external to the market economy. On the contrary, it is caused by basic mechanisms of this economy, particularly competition. The importance of globalisation processes is confirmed by the data for the last quarter of the 20th century (1975-2000) provided by the German Federal Bank: the real production of the global economy increased by 140 %, and global trade by as much as 320% (Nuscheler, 2004, p. 55); moreover, the capital flows increased almost thirtyfold. Financial markets are no longer predominantly related to the real economy and to the trade and service financing, but they are literally focused on unrestricted pursuit of speculative profits. These are the main causes of financial and economic crises.

The main drivers of globalization are the following contemporary socio-economic processes: own dynamics of markets and emergence of transnational firms (transnational corporations), new technologies leading to the development of global production networks, development of international financial markets (mostly independent from national and real markets), great revolution in communication and management (transition to the information society), political regulations necessary for the continuing globalisation (set out mostly by the International Monetary Fund, the World Trade Organization, the World Bank, OECD, G8, or G20).

However, it is necessary to base globalisation on political regulations focused on the socialisation of the contemporary global capitalism; this is the only globalisation which will benefit the majority of society. According to this concept, the development of global governance and knowledge-based society ensures globalisation aiming at the long-term survival of humanity and biosphere on the globalized planet. In E. Altvater's view, *the world market is the site of economic reproduction of the global capital relations, as well as of the political organization of hegemony. An opening to the world is thus synonymous with economic integration into the global process of economic reproduction and a historically determined system of hegemony* (Altvater, 1993, p. 81).

The world market represents not only an economic challenge, but most of all, it is a political project where the most important large transnational corporations and industrial countries supporting them (mostly the US, the EU countries, Japan, or BRICS countries[2]), as well as the international organisations formed by these countries, are of a key importance. The present economy takes on new scientific and technological properties as a result of international modernisation and technological competition between large firms, and modernisation strategies of the most important world-market oriented countries.

The advocates of the technocratic modernisation, following the neo-liberal economic principles, tend to view globalisation only in the context of positive economic development prospects such as: higher economic development potentials (higher incomes) positively related to the international division of labour; the increase of global labour efficiency and the efficiency of using natural resources; worldwide standardization of financial policy, and of economic, ecological, or socio-cultural standards. The negative results of the dominating globalisation are usually defined as temporary development problems that excuse the furtherance of deregulation, privatization, and liberalisation of the economy. However, the continuation of these processes usually means destruction of the previous production capabilities, usually at the expense of local, regional, and national manufacturers and communities; and it produces negative economic, social and ecological effects.

[2] An informal group of developing countries consisting of Brazil, Russia, India, China, and the Republic of South Africa. These countries want to strengthen their position in the world, particularly in the world of monetary institutions and in the UN.

Nowadays, the accumulation of capital takes various forms: different forms of classical primitive accumulation (expropriation of small manufacturers); new forms of expanding capitalist property and production relations (mostly achieved by privatisation of public services, infrastructure, and pensions and social security systems); ubiquitous frauds and plunder (mostly in large concerns or financial institutions); concentration, appropriation and taking over economic values that have different social background (are produced by other firms or regions); patenting and expanding of property rights onto the environment and knowledge. Therefore, the global ecological crisis is related to direct threats to life and reproduction conditions of specific social groups, whole regions, or even countries and continents.

The global financial and economic crisis is a persuasive evidence for the instability of contemporary phase of financial accumulation. However, it is the present financial system that determines the dynamics of capital accumulation. The political and economic centralisation of financial markets has contributed to the creation of *a Wall Street-Treasury-International Monetary Fund complex, which has huge financial power in the world* (Zeller, 2004, p. 17). The present accumulation pattern of the US – based on the domination of financial capital – contributed to the creation of the *world factory* in China and India.

According to M. Massarat (2004), parliamentary democracy and the present party state have reached the limit of their governing capabilities. The non-governmental organisations (NGOs) and new social movements (anti-globalization and movement of the indignant, in particular) provide an answer to the contemporary social crisis. In the present democracy based on political parties, election promises are broken and the political power is exercised by powerful interest groups through successful lobbing. The contemporary democratic countries face many problems, including: the power syndrome and focus on the present, complexity and competences dilemmas, ethical compromise and egocentricity dilemmas.

The desire to retain power forces political delegates of parliamentary democracy into short-term thinking focused mostly on securing current interests. Consequently, only the actions that increase the number of popular votes and help to retain power in the next parliamentary term, are undertaken. Furthermore, modern societies are becoming increasingly complex and less transparent, while parliaments often show limited expertise. This lack of competence gives rise to the extensive power of experts (*expertocracy*), which turns democratic political process into its opposite, inviting lobbying and omnipotent corruption.

The contemporary democracy is constantly forced to work out new compromises. The necessity to reach compromises between social strata and classes, as well as between wage labour and capital has led to the externalisation of costs and conflicts in the present model of mass consumption. However, in developed countries such compromises resulted in the externalisation of social conflicts and ecological burdens at the expense of other regions and nations, as well as future generations, the environment, and vulnerable social groups.

The high standards of democracy are only ensured if it exists regardless of external influences and can overcome serious ecological and social crises. Yet, contemporary democracies are reluctant to accept the general public will and comply with it. The societies in the globalizing world are based on a loose ethical basis, which reduces the sovereign to the community on its own territory and the general public choice to the short-term electoral and economic interests. Such societies are almost predestined to externalise their economic, social, and ecological conflicts in time and space, particularly at the expense of future generations. They still exist because of the broad social consensus for natural resource plunder, and externalisation of the costs of the present life standards.

Contemporary democracies based on the coercive externalization are externalisation democracies, which makes militarisation and ever-increasing military spending necessary. The globalisation of economy facilitates the externalisation of the costs onto distant areas of our planet as well as onto future generations. Accordingly, this allows development of technocratic modernisation which ignores the negative economic and social effects of globalisation. With respect to the technological civilisation, A. Kuzior emphasises that *in the ethics of technology, the concepts of the results-oriented ethics are predominant; therefore, the category of responsibility is very important* (Kuzior, 2006, p. 69). Many other considerations concerning this issue leave no doubt that it is necessary to include ethical postulates in the new state of the global society development; they should include individual and social responsibilities for the present as well as future generations (Pieńkowski 2011, 2012; Pawłowski, 2009; Ikerd, 2008 and many others).

The sustainable development concept as a challenge for reflexive modernisation

The concept of sustainable development was first formulated in the Brundtland Report of the United Nations World Commission on Environment and Development released in 1987. Sustainable development is defined there as *development that meets the needs of the present without compromising the ability of future generations to meet their own needs. It contains within it two key concepts:*

- *the concept of 'needs', in particular the essential needs of the world's*

poor, to which overriding priority should be given; and

- *the idea of limitations imposed by the state of technology and social organization on the environment's ability to meet present and future needs* (WCED, 1987, p. 43).

The Brundtland Report ties economic and ecological goals with social ones; namely with a just distribution of natural resources, or at least the possibilities for a just distribution. The formula of sustainable development consists of the following elements: ecological durability, economic development, and intra- and intergenerational social justice, which combined together ensure sustainable and just development. Such concept is related to the reflexive modernisation.

The aim of the Report was to propose long-term action strategies for achieving sustainable development. To realise this aim, it is necessary to follow recommendations, or strategic requirements: prevent population growth and develop human resources not utilised so far, satisfy basic human needs, secure food supply, prevent destruction of biological diversity and of natural ecosystems, decrease energy consumption, increase industrial production which makes use of technologies protecting natural resources and the environment, impede urbanisation and encourage development of small towns, which are tightly connected with the surrounding environment. The concept of sustainable development was then widely popularized by the *World Summit* in Rio de Janeiro in 1992. Since that time it has become very popular in the social awareness, and even widely incorporated into politics and economy.

The concept defined in the Report inspired a series of discussions on the theoretical and practical issues. The central political and scientific task is focused on the attempt of proper operationalization and concretisation of the concept. The sustainability will finally form different formulas for production and labour, which will be based on fundamentally changed values and styles of action (Altvater, 2006)[3].

In recent years, very specific government rules for the benefit of sustainable development have been accepted, namely: (1) the rate of consumption of renewable natural resources should not exceed the rate of their recovery; (2) the rate of consumption of non-renewable natural resource should not exceed the recovery rate of renewable natural resources; (3) the rate of emissions should not exceed the natural capacity for their absorption. Most research on sustainable development or a sustainable economy is concerned with the above ideas; such approach is particularly characteristic for socio-economic and ecological disputes.

However, sustainable development needs to be considered at three fundamental dimensions: ecological, economic, and socio-cultural. The following goals of sustainable development should be realised to provide a decent life for people, while preserving the existing environmental capabilities (Rogall, 2009):

- **ecological goals:** (1) protection of the Earth's atmosphere, (2) protection of the environment (including land and species), (3) protection of natural resources (resource consumption < the rate of their recovery), (4) human health protection (including protection against noise and harmful substances), (5) mobility within the environmental space capabilities;
- **economic goals:** (1) full employment and acceptable job standards, (2) wages and economic growth within the environmental space capabilities, (3) stabilization of foreign affairs and development work, (4) price stability, (5) sustainable national budget capable to cover reasonable amount of collective goods;
- **socio-cultural goals:** (1) social security, (2) democracy and legal regulations, (3) internal and external security (peace), (4) social integration and just life opportunities (including gender equality), (5) quality of life and health conditions.

A. Pawłowski (2009) proposes to analyse the concept of sustainable development from the perspective of two additional levels. The first level is the foundation for others – it is an ethical reflection on human responsibility for the environment, determining any human activity. Level II covers already mentioned ecological, social and economic issues. Level III is an analysis technical, legal and political issues and is as important as level II, but covers more detailed problem areas.

Thus, the concept of sustainable development sets out multidimensional conditions for reflexive modernisation; it avoids setting one-sided economic goals, providing a set of sustainably interrelated economic, ecological, and socio-cultural objectives, instead. These objectives must take into account the capacity of environmental space to prevent the collapse of present ecological systems.

Global ecological, economic, and financial crises confirm the breakdown of fundamentals of the present capitalism. L. C. Thurow, analysing the history of capitalism, stated: *the financial crises of the 1920s and the 'Great Depression' of the 1930s had brought capitalism to the edge of extinction. The capitalism that now seems irresistible could, with just few missteps have vanished* (Thurow,

[3] Absence of sustainable development in the present economy has also been criticised by – among others – N. Roubini & S. Mihm (2010), or H. Ch. Binswanger (2010).

1997, p. 5) [4]. A global ecological catastrophe would result in the collapse of the present civilisation, which is usually defined as scientific and technological one, as well as in the destruction of the biosphere in its current form. Because of crises, catastrophes, and threats that occur in the present global society, the growing *social awareness of threats, crises, catastrophes, as well as development chances and opportunities can be helpful, as it can create new decision contexts, facilitate creation of new structures and institutions, help in global consensus building (not only the one based on protests and contestation of anti- and alter-globalists)* (Zacher, 2008, p. 66).

A fundamental change in economy and economic policy is needed to protect the humanity and the biosphere against global threats. It is also necessary to abandon neo-liberal supply economics and Keynesian demand economics.. These two schools of economics failed in solving the problem of ecological limitations, or basic social and economic problems. In this light, a programme of economy modernisation based on sustainable development economics becomes a necessity. According to Ch. Felber, *the present form of economy, the capitalistic market economy created a dangerous multifaceted crisis of the present day*: *financial bubbles, unemployment, distribution, climate change, energy, poverty, consumption, downsizing democracy, loss in values and loss of meaning* (Felber, 2010, p. 14). Such programme would comprise basic dimensions of sustainability and the fundamental goals of economic policy consistent with the requirements of sustainable development. The comparison of the three concepts of economics and related economic policies is presented in Table 1.

Conclusion

The following phases of modernisation can be distinguished: evolutionary modernisation (dominant in the 20th century, based on the hegemony of progress), technocratic modernisation (based on all-around implementation of modern technologies into economy and society), and reflexive modernisation.

The technocratic modernisation absolutizes the importance of mechanisation and automation, and computerisation of today's society. The reflexive modernisation, on the contrary, emphasises criticism of the previous modernisation achievements, which have led to socio-ecological problems; the technocratic modernisation has not solved these problems yet. The technocratic modernisation includes the following elements: the concept of nature control, unsustainable economic and social development, the domination of financial economy over the real economy, ecological crisis, and lack of solutions to unemployment problems. The reflexive modernisation, on the other hand, is based on the ecological paradigm, sustainable development, domination of real economy over the financial one, development of knowledge society, and global socio-economic governance.

Table 1. Comparison of supply, demand, and sustainable development economics. Based on the lectures of H. Rogall at Hochschule für Wirtschaft und Recht in Berlin. See also Rogall, 2011.

Economic approaches		
Supply economics	Demand economics	Sustainable development economics
Approach: continuous economic growth by reducing costs and increasing incentives	Approach: continuous economic growth through anti-cyclical demand control by the state	Approach: selective growth, division of labour, financing jobs by reducing subsidies, international minimum standards
Reduction of public spending	Public programs for generating demand (credit and loan systems)	Greening of the financial system and modernisation of economy
Reduction of individual costs	Lowering the interest rate (monetary policy)	Reducing the unemployment rate, comprehensive ecological and social modernisation
Increasing social benefits by tax system and tax cuts	Increasing incomes of the less well-off	Shortening of the work-time, division of labour, new lifestyles
Abandonment of social transfers and employment in the public sphere	Expanding social transfers and employment in the public sphere	Work for the common good (Scandinavian model), developing the education system, reducing subsidies
Deregulation	Additional investments	Higher environmental and social standards, selective growth
Danger of poverty, lack of ecological solution to the problem	National debt, lack of ecological solution to the problem	Realising the goals of sustainable development triangle (social, economic, and ecological systems)

The dispute over these two theories of modernisation is fundamental for the future of Poland. Advocates of the technocratic modernisation postulate rapid development of highly industrialised agriculture and nuclear energy. By contrast, supporters of the reflexive modernisation favour development of

[4] Ch. Felber (2010) postulated common welfare economics instead of economics which benefits only a small group of people.

ecological or integrated agriculture, power production that makes use of renewable energy sources, energy saving as well as the more effective use of non-renewable energy sources which are less harmful for the environment (for example, natural gas or petroleum).

Table 2. Basic characteristics of modernisation theories. Source: Authors' own work.

Technocratic modernisation	Reflexive modernisation
Concept of nature control	Ecological paradigm
Unsustainable socio-economic development	Sustainable development
Domination of financial economy and vulnerability to financial and economic crises	Domination of real economy over the virtual one (financial)
Ecological crisis and unsolved unemployment problems, externalisation of development costs	Knowledge society and global governance, rejection of externalisation
Neoclassical economics	Sustainable development economics

The implementation of sustainable development in Poland has not been very successful so far (Żylicz, 2001), which only confirms the domination of technocratic modernisation. Furthermore, the necessity to rely on the development of nuclear energy and to introduce GMOs in agriculture has been recognised recently. All this points out to the need for fundamental changes in the present modernisation. This is all the more difficult due to actions known as *greenwashing*[5], used by technocratic modernisation advocates (social manipulation, as well as misinformation, particularly in their promotional actions). Presently, there is a dispute on the future of socio-economic development: technocratic versus reflexive modernisation. However, only the latter can successfully realise the concept of sustainable development in which economic development is related to socio-economic conditions.

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[5] In the sense of deceiving consumers or citizens by using ecological arguments.

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