IS THERE A PERSPECTIVE FOR A NEW PARADIGM IN ECONOMICS?

Jonas Čičinskas*
Vilnius University, Lithuania

Abstract. It was long before the current economic crisis has triggered a new wave of criticism towards the very foundation of capitalism – the market system, that a discontent with deepening divergence between the pure economic theory and the agenda the economic policy has been dealing with was proliferating. Attempts of refining the paradigm or its replacement with a new one were undertaken. The objective of the study was to review the main failures and incapacities the neoclassical economic theory is experiencing and to identify the possible trait components most appealing for modification and refining. The vast and unstoppable waste of resources (labour, but not only) by the modern market system, negation of the permanent and necessary presence of state in the economy as an integral economic agent, distortion of goals of economic activity by limiting them by the quantitative maximization of produce – these are the main traits of failure of the current theoretical model in satisfying requirements for a better understanding of modern economy. They are also the arguments for the criticism of its paradigm.

The analytical method was used to penetrate the current discussion and other data in order to disclose the paradigmatic content of the theoretical perception of modern economy. The results of the whole study are new in terms of the fulfilled attempt to systemize criticisms of market system failures and to point out the possible components of its paradigm, which pretend to be modified. The conclusion is drawn that the paradigm of mainstream economics has no alternatives, but the growing mismatch between the realities of modern economic life and presumptions and the conclusions of the neoclassical model of economy asks for its revision or modification.

Key words: mainstream economic theory, paradigm, failure, waste of resources, revision.

Introduction

Perhaps no social theory relies so undisputedly on a single theoretical model – the mainstream economics – as economic theory does. The main reason is that economic processes allow significantly more of quantitative analysis than other kinds of social activity. This brings economic theory much closer to pure sciences which, by definition, employ a single way of explanation.

The theoretical model – the mainstream economics – towers all over the academic perception of the economic world and serves as a gauge or benchmark in advising...
and assessing economic policy measures, thus relentlessly imputing its monopoly for scientific methodology and “laws” of people’s economic activities.

On the other hand, the dominance of the mainstream economic theory does not stop criticism towards its basic assumptions and conclusions. The “global discontent” has been accumulating throughout a long time. The recent economic crisis, which hit first of all the most developed post-industrial national economies, triggered an especially wide and harsh critique of the actual theoretical model of the economic system, although did not add, so far, any new arguments to the existing ones, which have already been provided by analysts of economic life.

The criticism is directed towards the very paradigm the modern economic theory is based upon.

The wants of human beings, the paradigm states [concludes], are limitless, and the resources to satisfy them are relatively scarce. People have to make choices and by doing that they behave rationally – they seek to produce maximum goods from the available amount of resources. Price fluctuation (that is, changes in goods and factors exchange relations) help them achieve it. If the system is not interfered, it comes to an equilibrium where all available resources are engaged into productive use, supplying the community with the maximum amount of goods it can produce and in proportions the community prefers.

Does it still work today? Is it the best paradigm capable to feed economic theory, suitable for explaining today’s economic reality? To put the question in another way, is the dominating paradigm “cut in stone” with neither perspective nor need to be modified or replaced?

The broad discontent with the mainstream economics has accumulated into some collection of arguments which still awaits for its arranging, if possible, into an orderly and scientifically based system – hopefully, to a new paradigm. Therefore, the main objective of the study is to review the criticisms directed towards the very foundations of the mainstream economic theory, assess their relevance and importance and to resolve whether there are the reasons to replace, review, modify or retain the existing paradigm the neoclassical economic theory is based upon.

The first chapter of the article reviews the criticism expressed towards the weaknesses, shortcomings and failures of modern economics. The second chapter presents an attempt to explore the causes and sources of the failures. The suggestions and propositions on how the existing paradigm could be modified are reviewed and assessed. The conclusions finalize the study.

1. What is it the economic theory is failing?

The simplest way of questioning the mainstream economic theory and its forecasting power is to compare the faceless individual actors maximizing their return (output,
income, profit, wages), presented in economics textbooks, with real life individuals and social groupings guided by far more diverse goals and motives and acting in extremely complex institutional environments whose impact on their behaviour does not raise any doubts.

This, however, is a simplistic approach common to the treatment of all social sciences. It does not question the stochastic nature of regularities in social life and, thus, does not come closer towards the paradigm economic theory is built upon. More profound questions concerning the paradigm of economic theory are the following.

First, how the assumption of scarcity of resources may be held along with the fact of permanent oversupply of them actually in every national economy? This assumption was relatively more correct in the pre-industrial era, and it is necessary for creating mathematical models of an economy, but does it reflect any of the main characteristics of modern economy which seem to be more concerned about the permanent “scarcity” of effective demand and even a more permanent “oversupply” of production factors?

The latter is most conspicuous in case of labour. Involuntary unemployment has served as a trigger to start systemic studies of macroeconomic issues and continue up to the conclusion about the possibility of an equilibrium without clearing the production factors’ market. This has been a cardinal Keynes’s argument used to prove the flaws in the classical understanding of economic system. Unemployment statistics and the weight of employment policies in any government’s economic policy certify that something is overlooked either in the treatment of labour force as a productive factor or in the market mechanism itself. This aggregate economic instability is, as N. Gregory Mankiw has put it, “some sort of market failure on a grand scale” (Mankiw, 1990).

A more detailed analysis may provide the facts about a relative excess of capital and land, though to a lesser extent.

Second, the very nature of any national economic system is still referred to and analysed as that of private independent decision makers (physical persons or legal entities), but this again is not true: in mature economies, governments (formed, in democracy, by the majority’s representatives) directly or indirectly (through mandatory social insurance) redistribute 40 to 55 per cent of gross domestic product (GDP).

This amount of output, unimaginable to any single corporation, is taken from the factor income and given back to factor owners – but profoundly restructured, amassed and redirected towards new goals and tasks. The mechanism, by which this roughly half of GDP is processed, is of different sort as compared with the market mechanism.

1 On the other hand, this specificity of economics, its relatively weak foreseeing power forbids it from becoming a direct tool and argument in public policies and business. “Since it [economic theory – J.C.] is about real world, people expect the theory to prove useful in achieving practical goals. But economic theory has not delivered the goods. Predictions from economic theory are not nearly as accurate as those offered by the natural sciences, and the link between economic theory and practical problems… is tenuous at best.” (Rubinstein, 1995, p. 12).

2 In 2009, the government expenditure in the EU-27 was 50.7 per cent of GDP (Eurostat, 2010).
This is not a full story: although “only” close to half of GDP is redistributed and used by government decisions, the production and use of another half doesn’t remain untouched, either. Actually every individual and every enterprise not just gives up some of their income for taxmen, but, what is most important, is made to modify his / her / its targets, means and behavioural models according to institutional settings which underlie the state’s presence in the economy.\(^3\)

Of course, the basic goals remain the same – individuals seek after their own well-being. But the work of the “black box” which intermediates their way from perceiving their own needs up to their satisfaction, did not remain the same. An “invisible hand” continues working, but the “visible hand” of government decisions not only restricts the area the “invisible” have once dominated, but even attempts to steer it (to better or worse). The state’s economic policy, international rules of economic relations, corporate strategies and voluntary codes, the ever expanding art of consumer manipulation jointly represent the force put forward to have the “invisible hand” be driven “visibly”, by one’s will and strategy\(^4\).

In short, free market economy has been replaced by mixed economy\(^5\).

Third, the very measure of economic progress, the GDP indicator, has recently come under an ever stronger attack on the account of its failure to correctly reflect the economic progress and, the more so, the dynamics of the main goal of people’s economic action – changes in welfare.\(^6\) This criticism is one of the most powerful expressions of doubts about how correctly the contemporary paradigm approaches human economic actions and strongly asks for rethinking it.\(^7\)

Fourth, no single social process can be treated without regarding its institutional surroundings and historical development. Which economic system is investigated by the modern neo-liberal economic theory? Is that the pre-industrial closed national economic

\(^3\) It is accepted that in the framework of government and private sector relations, the first one, using its economic policy, is the active part – it intervenes the activities of the private sector. It is an imprecise picture, because private business is fully capable to exploit the governmental actions for its own sake – both directly, by selling goods and services to the public sector, and indirectly – by making use of government guarantees for property rights and intellectual property rights. State-provided monopoly makes up quite an important part of private business patrimony.

\(^4\) The state’s growing active economic role is not confined within the boundaries of national economy and its relations with the domestic private sector (or in the area of intergovernmental economic relations). A national government becomes to be directly involved into another state’s private sector. In recent years, this has been conspicuously demonstrated by the rising size and global presence of sovereign wealth funds and international activities of the state-owned enterprises (see, for example, Asset-backed insecurity, 2008; The rise of state capitalism, 2008; Whyte, Barysch, 2007).

\(^5\) This notion has been denied in mainstream economic theory. The reason is rather obvious – mixed economy raises unbearable tasks for the dominating methodology which is fully based on the presumption that economic decisions are taken by independent individuals striving exclusively for their private well-being. The mixed economy needs some another treatment.

\(^6\) “…GDP fails to properly distinguish between welfare enhancing and welfare degrading expenditures…” (Talberth, 2007, p. 4); “… the time is ripe for our measurement system to shift emphasis from measuring economic production to measuring people’s well-being” (italics original – J.C.) (Stiglitz (2009, p.12).

\(^7\) “… what we measure shapes what we collectively strive to pursue – and what we pursue determines what we measure.” (Stiglitz, 2009, p. 9).
system where free market relations supported economic activities twined with quite specific state regulation and taxation? Or is it an industrial economic system, with an ever-growing capital concentration, rising overall taxation, exploding state regulation, manipulative monetary policy and swelling financial sector? Or maybe it is a system which is spiralling back to the “B version” of closed laissez-faire economy (the one Adam Smith has investigated), now united by the single global market (and still maintaining approximately two hundred national economic policies, each charged with ever-growing economic responsibilities and armed with continually shrinking possibilities)?

Are these versions just modifications of the same economic system or separate and fully different ones? Can we apply the same theoretical model to all of them or a new paradigm should be searched in order to create a kind of “post-Newtonian” economics?

Maybe J.M. Keynes is right once having observed: “I shall argue that the postulates of the classical theory are applicable to a special case only and not to the general case...” (Keynes, 2007, p.3).

As it has commonly been stated, economic theory copes with the problem of “… allocating scarce resources among the competing and virtually limitless wants of consumers in society” (italics in original – J.Č.). (Hardwick, 1986, p.3). What about the problem when it encounters scarce resources, still more visible limits to consumers’ wants (due to the growing use of non-recoverable natural resources and, therefore, a potentially self-limiting rise of consumption), domination (even on the global scale) of markets of imperfect competition?

And how economic theory has to fulfil its scientific (explanatory and anticipatory) duty when the basic presumptions are changing (rise of permanent presence of unengaged resources and the gargantuan direct participation of government in economy), the indicator of economic performance is dubious, and virtually no historically determined changes in the institutional framework of economic system are taken into account?

In order to better assess the claims asking for a more profound review of the theoretical model used by the mainstream economics, we have to turn to an analysis of the causes and reasons the presented arguments stem from.

2. Causes of and reasons for the growing imperfection of economic theory: a tentative reconnaissance

Taken broadly, the paradigm of the mainstream economic theory is under fire as its ideological basis – philosophy of liberalism – collects criticisms from today’s analysts.

It is well known that the main methodological failure of liberalism is its individualism which rejects or is unable to fully embrace the notions of collective action, common welfare, common interest, community.8 Is mainstream economic theory, built on such

---

8 The famous Margareth Thatcher’s phrase “there is no such thing as society” has its philosophical origin in Bentham’s statement that community is a fiction.
foundation, able to use its methodological individualism to fully explain such an important kind of social systems as the economic system (sub-system)?

Liberalism has earned great praise for its merits in struggling for and securing individual human rights and dismantling ultra-conservative beliefs in the prejudices of class society. But it did not stop there. As some critics state, during the last two centuries, liberals have “spoiled their philosophical vision” – seeing just individuals and political authority they lost from their sight intermediary social structures: family, neighbourhood, community, religious and other associations (Jokubaitis, 2003, p.74).

The main problem liberalism has created for itself in its cognitive efforts is the outright rejection of the idea of common good. According to its doctrine, everything is up to individual choices, the positive collective action is senseless, impossible or destructive if based on something different than the market value or its substitute (i.e. renouncing to use the principle of equivalent exchange). As A. Jokubaitis notices, after having liberated an individual from state interference, liberalism nowadays is becoming an obstacle to its own achievement – an obstacle for joint action for a the sake of society or community goals, social ethics, moral and social values (Jokubaitis, 2003, p.71).

In democratic society and the globalized world where common, collective actions occupy the agenda, both liberalism and its direct economic offspring – mainstream economic theory – demonstrate their theoretical and ideological limitations.

The towering principle of individualism as the main philosophical basis of mainstream economics began to demonstrate its deficiency with the emergence of macroeconomics. As John Wettersten has put it, “…the dominant tradition in economics is individualist. But in spite of the wide acceptance of individualist theories of rationality, research by economists reveals most clearly the severe limits of individualist theories of explanation in the social sciences” (Wettersten, p. 59).

The macroeconomic part of economics came to being quite late, in 1930s, mainly as a corollary of the publication of J.M. Keynes’s “General Theory of Employment, Interest and Money” (1936). (Cleaver, 2007, p. 62). Gradually, with the state’s economic role growing and changing, macroeconomics have become an important part of economic theory, experiencing a rising interest for and a demand of it, and, consequently, acquiring more autonomy within economic theory. Economic policy continued to make a good use of the achievements of microeconomics, but both the need for macroeconomic investigations as well as for tools it could deliver to policy-makers was in still rising demand.

The relation between micro- and macroeconomics is sometimes contradictory and, whenever a contradiction takes place, economic theory (not necessarily economic policy!)

---

9 Although the question sounds rhetoric, it is periodically raised and answered. “…in spite of the wide acceptance of individualist theories of rationality, research by economists reveals most clearly the severe limits of individualist theories of explanation in the social sciences” (Wettersten, 2006, p. 59).
takes on the microeconomic point of view. Consequently, microeconomic criterion, converted to be a macroeconomic one, may confuse judgments up to sheer nonsense – for instance, when the maximization of turnover is applied to energy (and other goods!) consumption. Another example – the well-known cost and benefits analysis principle “present goods are preferable to future goods”, which is more than doubtful for the long-term macroeconomic decisions.

The methodology of individualism leads to the underestimation of the quality of life requirements, born by the fact that people live as communities, and, respectively, to the overestimation of its quantitative measures i.e. consumption of goods and services. The growth of consumption, still considered to be the main indicator of welfare, is now brought to questioning with a rising intensity, and the idea about its control, absolutely impossible for the mainstream theory, confirms its presence in economic debates still stronger.

One of the key messages of the European Commission’s report states that “…the time is ripe for our measurement system to shift emphasis from measuring economic production to measuring people’s well-being” (Stiglitz, 2009, p. 12).

The expanding area of macroeconomic issues in nations’ public agenda and, with a lag, also in economic investigations requires to revalue the relation between quantitative and qualitative methods used in economic research. While the quantitative economic analysis continues to progress and refine, its qualitative (conceptual and epistemological) side is lagging behind still more. The mismatch between economic theory and what is demanded from economic science by today’s societies is growing. On a bit different occasion (discussing the pure science situation), Albert Einstein once remarked that, insofar as mathematical statements refer to reality, they are not certain, “and so far as they are certain, they do not refer to reality” (quoted after Dillmann, 2000). This is especially true for economic theory.

Second, the mainstream economic paradigm underestimates the role of institutions, and in doing so it disregards the historical evolution economic life regularities. As the institutional school of thought points out, the general equilibrium does not need

---

10 The resulting corollary of that is, as James Buchanan once observed, that individual choice behaviour is converted “…from a social-institutional context to a physical-computational one”. (quoted after: Prychitko, 1998, p. 379).

11 An example: The former VST company, the owner of the distribution grid of Western Lithuania (now dissolved), abolished a single price for electricity supplied for business units, introducing a stimulatory scheme; the general director of the company explained it in the clearest way: “Those who will consume more will pay a reduced price. This is the way all Europe is doing ... The similar rules are in retail trade as well – those buying more receive bigger discounts.” The hard logic of a business unit is widely perceived: a journalist, reporting the issue, praised the company for its being brave in abolishing the pricing system bequeathed from the Soviet times – when the amount of consumption was not stimulated – and shifting to a “more effective” one (Jokūbačius, 2005).

12 For instance, the report of the Worldwatch Institute concludes: “In the long run, meeting basic human needs, improving human health, and supporting a natural world that can sustain us will require that we control consumption, rather than allow consumption to control us” (The Worldwatch, 2004).
institutions and their evolution. But, as the institutionalists state, even “... private property rights – an apparent “foundation” of the market system – are given by neither economics nor natural law” (Prichykto, 1998, p.10). Property is an institution obtained through the evolution of society. If so, the question is raised: should the market mechanism go first in the analysis of economic life, or should we start from the institutions that lay down the basis for the market?

It is the institutions that make *homo economicus* a social animal – not immediately and not at once, but gradually and incessantly. It is the development and gradual evolution of institutions that continuously bring changes to the mechanism of economic life and require periodical reconsideration and refreshment of theoretical views.

While institutions in their majority are exogenous factors for microeconomics, they are endogenous for macroeconomics. Institutions in microeconomics are, as a rule, limits and restrictions for individuals’ activities, while in macro they are, at least intentionally, tools for constructive actions of the governing social bodies (entities). Institutions, as the representatives of institutionalism underscore, are characteristic of bringing the concept of power into economic analysis. The concept of power is understood not as simply a coercion; it also embraces more subtle means for “orchestrating the thoughts and desires of others.” (Hodgson, 2004, p. 87; “Institutions are enduring systems of socially ingrained rules”, defines Hodgson further in the text (ibid., p. 95).

The whimsical history granted an opportunity to watch for the second time how the market economy is being born. This is the case of systemic transition from centrally planned to market economies in East, Central and the South East Europe and Baltic states. Now, when the very systemic transition, in the majority of countries, is over and a significant amount of research work has been conducted, scholars generally agree on the crucial role the initial conditions (brought by historical developments) and institutional structure have played in the success and perspectives of transition processes. The literature abounds in cases of failures, losses and delays caused by ignorance or neglect of historical, cultural and political conditions inherited by a transition country, of the institutions that are absolutely necessary for a stable market economy (and democracy as well). The transition process the countries of the former Soviet Union have undergone, to a very different extent, has demonstrated that a market economy is the derivative of the initial conditions, presence and quality of institutions and, finally, the soundness and effectiveness of their policies. There are no arguments to reject the same attitude when the modern market system in investigated and the question about its historical evolution is raised.

3. **In place of conclusions: could there be an alternative paradigm?**

So far, we have presented the serious questions the mainstream economic theory is not able to answer, and undertook some attempts to discover the causes and sources of the
failure. The problem seems to be of paradigmatic content. Does the literature contain proposals of a new paradigm for the economic theory and all its discoveries? Unfortunately, it does not. At its best, the discussion about the new paradigm rests on pointing out the need of it, but not on what it could be. What is proposed may, in a sense, be summed up as the calls for more supervision, regulation and control of market operations led by private entities and more rigid “codes of conduct” for the state agencies themselves.

This is a blind way. The proposals are contradictory in themselves. They may be taken as the understandable short-term reaction to the wilderness of financial markets and the impotence of the governments that finally led the advanced global economies to a disastrous economic crisis. But they do not question the paradigm the theoretical understanding of modern economy is built upon. The increased regulation of market economy, if progressing, would lead to a sort of “administered capitalism”, which would ail much more and would finally implode risking to bring back a version of the 19th-century capitalism together with revolutions and wars. Actually, what is being discussed now as the remedies to the nowadays’s type of capitalism are the debates about changes in economic policy, but not about a revision of economic theory.

Regulation is being provoked by market inefficiencies (amplified by the domination of imperfect market structures) which, in turn, are further enhanced by proliferating regulation. Economy is more and more regulated. Anti-monopoly laws, health and safety standards and, most recently, tightening rules for financial institutions are the best examples of the proliferation of governmental (public) regulation implemented each time the market economy demonstrates its “genetic” failures. This trend implicitly indicates that although society is increasingly dissatisfied with its economic “engine”, it, on the other hand, still has not found any alternative to it. Whatever the reasons, the modern economic life is gradually receding from its classical (neoclassical) model, and state’s penetration of economy continues growing. Therefore, the free market mechanism cannot work as a permanently equilibrating mechanism; it already functions and will function further under the direct influence of national and international policies, thereby subjected to various fluctuations.

Developments of such nature gradually steer the classical (neoclassical) theory aside from the real modern economy. The model of the economy without active government directly participating in it on equal footing with other economic agents cannot be a sufficiently effective tool of analysis. The problem becomes even more aggravated, if we assume that, in a broad sense, there are three components in economic science: philosophical premises, the empirical reality, and economic policy (Prichytko, 1998,
p. 202). If so, we may conclude that nowadays these parts do not keep well together; they are moving apart and need to be consolidated on the basis of a new paradigm.  

But is a new paradigm possible? Can, in other words, the premises and main findings of the classical and neoclassical economic theory be refuted and a new set of them proposed?  

Nobody had dared and nobody dares to go that far. There are no arguments to support the need to fully reject the old paradigm (if not to count the euphemistic exhortations for that) and, the more so, to present and prove the viability of a new one. The arguments are for a revision of the existing paradigm. Let us list the main of them in order to conclude.  

First, whatever the causes, the today’s market system warrants a gigantic waste of resources. If a significant share of workforce search, in vain, the engagement in economic activity (and has no income to participate in the economic cycle), if vast amounts of capital are used for purely speculative purposes, if part of society practice conspicuous and wasteful consumption and life-style – then the well-known and perfectly manifested public sector inefficiency will be, when summed up, just a fraction of that waste. The paradigm the theory of such a system is based has to be revised. This is what a logical (pure science methodology) requires to do.  

Second, economics is, as dictionaries used to define, the study of the problem of using factors of production to attain the maximum fulfilment of society’s unlimited demands for gods and services.  

These demands are expressed not only by individuals, but also by various groups and the state. They are satisfied again not only by individual but also by collective actions. This determines the institutional structure of the economic system. So, the paradigm of the economic theory disarms itself whenever it restricts analysis to individual actions. Interest groups and state institutions should be included into the set of economic decision-makers. This is what the institutional approach demands.  

Third, the vector of economic action is described by mainstream theory as the maximization of some final product the economic agents seek for. This was true in the era of industrialization which was the era of the formation of the mainstream economic theory. The post-industrial epoch showed some weaknesses of the approach, first, by bringing in periodical over-supply crises and, later on, raising the problem of growth sustainability. The notion of production maximization became, to put it mildly, a little bit

An implicit illustration of the need to approach modern economies with a single theory is, for instance, the proposal to “augment” the Washington consensus by postulates like “Adherence to international financial codes and standards”, “Social safety nets”, “Targeted poverty reduction” (Rodrik, 2004, p. 12).

See, for instance, The Harper Collins (1991, p. 154).

“…as the embodiment (ideally) of the collective will, values, and priorities of the societies that give them legitimacy, governments must step up and take on those necessary tasks that civil society and the private sector cannot or will not do adequately or competently – to look after the well-being of society as a whole” (The Worldwatch. 2008, p. 17).
obsolete and shall require, sooner or later, a revision of its absolutist treatment. This is what the historical approach towards the paradigm asks for.

The paradigm of modern mainstream economic theory is based on solid foundations of human beings freedom, wish of and capacity to solve all problems of individuals, families and communities existence; it can not be questioned in terms of its replacement. But its revision is becoming still more and more necessary and it is coming.

REFERENCES

Asset-backed insecurity (2008). The Economist, January 17th.

Cleaver, T. (2007). Understanding the World Economy. 3rd ed. London, New York: Routledge.

Dillmann, R., Eissrich, D., Frambach, H., Herrmann, O. (2000). Mathematics in economics: some remarks. Journal of Economic Studies, Vol. 27, Issue 4/5, pp. 260–270.

Eurostat (2010). News release. Euroindicators, 22/2010 – 22 April 2010.

Hardwick, P., Khan, B., Langmead, J. (1986). An Introduction to Modern Economics. 2nd ed. London: Longman.

Hodgson, G. M. (2004). Institutional economics: from Menger and Veblen to Coase and North. In: The Elgar Companion to Economics and Philosophy. Cheltenham, UK: Edward Elgar.

Jokubaitis, A. (2003). Liberalizmo tapatumo problemas. Vilnius: Versus Aureus.

Jokūbaitis, M. (2005). Elektros įmonė padės vartotojams taupyti lėšas. Lietuvos rytas, Gegužės 5 d.

Keynes, J. M. (2007). The General Theory of Employment, Interest and Money. London: Macmillan.

Mankiwi G.N. (1990). A quick refresher course in macroeconomics. Journal of Economic Literature, December, Issue 28, pp. 1645–1660.

Prychitko, D. L. (ed.) (1998). Why Economists Disagree. An Introduction to the Alternative Schools of Thought. New York: State University of New York Press.

Rodrik, D. (2004). Rethinking Growth Strategies. WIDER Annual Lecture 8.

Rubinstein, A. (1995). John Nash: the master of economic modeling. Scandinavian Journal of Economics, 1995, Vol. 97, No. 1, pp. 9–13.

Stiglitz, J. E., Sen, A., Fitoussi, J.-P. (2009). Report by the Commission on the Measurement of Economic Performance and Social Progress. -http://www.stiglitz-sen-fitoussi.fr/documents/reapport_anglais.pdf

Talberth, J., Cobb, C. Slattery, N. (2007). The Genuine Progress Indicator 2006. A Tool for Sustainable Development. Oakland: Redefining Progress.

The HarperCollins Dictionary of Economics (1991). New York: Harper Perennial.

The rise of state capitalism (2008). The Economist, September 20.

The Worldwatch Institute (2004). State of the World 2004: Richer, Fatter, and Not Much Happier. January 08. – www.worldwatch.org/press/news/2004/01/08

The Worldwatch Institute (2008). State of the World. Innovations for a Sustainable Economy.

Wettersten, J. (2006). How Do Institutions Steer Events? Aldershot: Ashgate.

Whyte, Ph., Barysch, K. (2007). What should Europe do about sovereign wealth funds? CER Bulletin, issue 56. October / November.