

Economic Dualism, Systems Approach and Russian Economy

Yuri Yevdokimov, Professor
Department of Economics
University of New Brunswick, Fredericton, Canada
yuri@unb.ca

Abstract

Market economy is a system that consists of inter-related individual elements such as private economic agents, private-public partnerships, state corporations and state institutions. Such a system possesses individual features of each element as well as systemic features. This is what is called economic dualism in this paper. This interpretation of economic dualism is compared to its traditional interpretation. Basic characteristics of the systems view on market economy are discussed. Some illustrations of a system organization of economy, specifically network organization, are presented. Major conclusion that comes out of this approach is: Systems view on market economy requires its regulation on the basis of a systems approach to correct for market failures and systemic risk. The paper explains what it means from an economic standpoint and analyzes current state of affairs in Russian economy in this regard.

Introduction

Traditional interpretation of economic dualism refers to co-existence of two or more economic systems in a country at the same time. More specifically, the concept of economic dualism differentiates between two sectors of economy:

- The traditional subsistence sector consists of small-scale agriculture, handicraft and petty trade; it has a high degree of labour intensity but low capital intensity and little division of labour;
- The modern sector of capital-intensive industry and plantation agriculture produces for the world market with a capital-intensive mode of production with a high division of labour.

Originally the term was used to describe countries in early stages of their development since those countries possessed both primitive agricultural subsistence-like economic relations with emerging industrialization at the same time. This interpretation mostly has grown out of work of W. Arthur Lewis (1954).

Later the term economic dualism was applied to countries with co-existence of pre-industrialized and industrialized societies at the same time or combination of traditions with new productive processes. History of economic thought has shown this co-existence over time and space as well as changing relative importance of pre-industrial and industrial institutions at any given point in time.

Finally the concept of economic dualism was applied to the so-called economies in transition. In this framework, dualism implied co-existence of private firms with state-owned firms competing in the same market. Private firms were regarded as profit maximizing while state-owned firms were being subsidized by the state. While in some former social countries the period in which the two coexisted was rather brief, in some other countries, including Russia, this pattern still exists although it took some other form. According to economic literature (see, for example, Bonatti and Haiduk, 2010), the larger is the initial fraction of the workforce employed in the state-owned firms and the stronger is the degree of ideological hostility towards market forces, the lower is the speed at which an economy in question will converge to the income level of the most advanced countries.

Those are simple stylized facts with respect to economic dualism described in mainstream economic literature. Dualism discussed in this paper is of different nature. It arises as a result of re-thinking the role of the state in modern economies. Latest economic and financial crisis of 2007-2009 once again raised the question about efficiency of various economic systems and put under serious critique the supremacy of capitalism as the best economic system. The relationship between free market and the state again came under radar of all schools of economic thought. Therefore, in this paper we will address some of those issues in the framework of a systems approach which led us to new interpretation of economic dualism.

Individualism versus collectivism in the framework of a systems approach

The ideas of individualism and collectivism live in any society regardless of our attitude towards them. Each of us is an individual with specific individual characteristics that distinguish us from any other individual. In turn, each of us is a part of social group – professional, religious, or any

other. It appears to be that we, as human beings, are both individuals and a part of society at the same time.

From a standpoint of a systems approach, any society is a system that consists of individual elements organized in a system. Therefore, co-existence of individual characteristics along with system's characteristics is natural and organic. Moreover, it is a well-known fact within the framework of systems analysis that a set of optimal individual elements in a system does not necessarily imply optimal system. In other words, there are individual characteristics and there are systemic characteristics and there is some relationship between them.

For many years individualism has been seen as fundamental philosophy of a capitalist society. Allan Myers (2012), for example, writes: "*Individualism as an ideology arose with the beginnings of capitalism. The idea that each of us is unique and should be free to do as we like (as long as we don't injure another individual) corresponded to a society of market relations, in which people are connected with one another only through buying and selling. In the market, everyone is free to make their own decision about what to buy and sell, without any outside input*".

With passage of time this reasoning became the backbone of a free market capitalist economy. It has been studied by economists and has been taught at schools, colleges and universities. Eventually it became the mainstream of economic thought. This philosophy in economics became known as "*invisible hand of the market*" first introduced by Adam Smith in 1759 in *The Theory of Moral Sentiments*. However, it is necessary to note that while majority of economists advocate this concept in their academic writings, they see themselves as a part of a team or a group or society as a whole in their professional and everyday life.

As already stated, economic system is a social system that consists of elements and as such it possesses some individual features as well as systemic features. It turns out that philosophy of individualism is unable to describe and analyze systemic features in principle, and therefore, it should be reconsidered all together. In fact, financial crisis of 2007-2009 was a good illustration of individual behavior versus systemic behavior. At the beginning of the crisis, majority of

business professionals in financial markets were able to see their own risk but they did not see systemic risk. They acted according to individual rationalism, which is another backbone of a capitalist economy. Eventually this rationalism was lost and replaced by crowd behaviour during crisis which negatively affected financial markets and, as result, all developed economies. In our opinion, it would never happen if systems rationalism was employed instead of individual rationalism. Then we saw that all developed economies applied pragmatic approach of government intervention into economies to correct the newly appeared market failures. Again, it would never happen if the whole economic system was subject to monitoring on the basis of a systems approach or rather systemic rationalism at the very beginning.

The systems approach is a powerful paradigm for understanding interrelationships. The systems approach simply states that all functions or activities need to be understood in terms of how they affect, and are affected, by other elements and activities with which they interact. The idea is that if we look at actions in isolation, we will not understand how such actions affect or are affected by other activities. In an economic sense, total economic value of a system is greater than the sum of values of its individual elements.

Economic dualism as coexistence of individual and systemic features

Here comes our first interpretation of dualism as coexistence of individual and system's characteristics at the same time that are taken into account simultaneously. It is useful to start with discovery made by Noble Prize Winner microbiologist Werner Arber. He argued with respect to genetic variation of bacteria that

“A philosophical conceptual aspect of the actual scientific knowledge on genetic variation is the rather unexpected conclusion of a duality of the genome. Besides a majority of genes serving to each individual organism to fulfill its own life, the genome also carries genes enabling populations of organisms to undergo biological evolution. This can be seen as the basis for the expansion of forms of life, that is, for biodiversity” (Arber, 2011)

In other words, genetics underlies not just existence and development of individual biological organism but also evolution of the whole population in which this organism belongs. It can be applied to economic systems as well. However, dualism described by Arber, once again

emphasizes coexistence of individual and social characteristics in a system at the same time. Both are needed for the development of the system. More importantly, presence of the social element is necessary for the system's evolution.

For many years, ideological dispute between capitalism and socialism has been around relationship between individualism and collectivism. Capitalism was associated with individualism while socialism was associated with collectivism. However, as usual the truth is somewhere in between: Individualism and collectivism are both needed for the development and evolution of economic systems. Therefore, philosophy of capitalism should be reconsidered to take into account the systems approach while preserving its individualistic features.

Economic dualism and network organization

The dual wave-particle nature of light is fundamental part of the modern theory of light. It states that light exhibits the behaviours of both waves and particles, depending upon the circumstances of the experiment. Economic systems are also subject to similar dualism: On the one hand, there are discrete and well defined economic agents – producers, consumers, government and others, but on the other hand, they all are combined in time and space as some specific distinguished entity. Once again, this interpretation of economic dualism points to the systems organization of economy. As stated above, a system in economic sense is associated with higher value than the sum of values of its elements. In systems analysis this phenomenon is known as synergy. In economic theory, it can be also explained by increasing returns to scale arising in an economic system that combines various factors of production and economic agents. Among other possibilities, increasing returns to scale can arise because of positive externalities that appear in a system or systemic externalities.

In this regard, network view on organization of production and consumption in economics is an example of the systems approach. It can also provide some explanation for the existence of positive or negative systemic externalities. Taking a systems approach to networks implies thinking about the network across its total life cycle. Evaluators of network elements need to understand how their choice of one element affects the total costs of the network and the value of the entire network. Why is this so important? Because it can create the security, scale and

performance that is needed while keeping overall costs minimized or in economic terms it increases the overall efficiency.

For example, if we treat economic system as a network, then there exist the so-called network externalities. Network externalities are the effects on a user of a product or service of others using the same or compatible products or services. Positive network externalities exist if the benefits are an increasing function of the number of other users. Negative network externalities exist if the benefits are a decreasing function of the number of other users (see economics.about.com).

For example, Metcalfe's law (see Shapiro and Varian, 1999) states that total value of a network to its users grows as the square of the total number of its users. Even mainstream economics claims that in the presence of externalities individual behaviour does not lead to socially optimal outcome or "*invisible hand of the market*" breaks down. In such a case, as explained in all economic textbooks, government intervention can improve overall efficiency of the entire system. Of course, there are some negative externalities as well that can increase the so-called systemic risk which is not recognized by individuals as well. As in the case with positive externalities, government intervention can improve upon efficiency of the entire system.

Latest economic crisis resulted in market failures in financial sector which spilled over the world economic system. And again if it was recognized that financial markets possess features of networks it would be possible to detect these market failures including systemic risk and prevent it before the crisis hit. It would be possible, for example, if there was some analog of a system administrator as in computer networks. It means that more effective level of security is possible when all aspects of an economic system can work together, and timely information critical to deterring, preventing, or responding to a crisis event is available system-wide.

Relationship between markets and the state in modern market economy

The above discussion was introduced in order to propose our vision of the effective relationship between markets and the state in a market economy. First, it is necessary to recognize a systems

organization of an economy. This system is a combination of private economic agents, private-public partnerships, state corporations and state institutions. There is no such a thing as pure market economy driven by invisible hand of the market. All economies are of the mixed type; however, the degree of such mix varies across countries.

Each element of such a system whether it is an individual entrepreneur or a state corporation plays its role and is associated with specific individual characteristics. However, they all are combined in a system whether it is a hierarchical system with vertical and horizontal linkages or a network. We call this type of organization of economic system economic dualism and address it in the framework of the systems approach. Any system is associated with positive and negative externalities as well as systemic risk which are neither recognized nor observed by individual economic agents. If such a system is left totally unregulated, it would lead to inefficiencies and suboptimal decisions from a systems approach standpoint. Therefore, in our opinion, there should be some kind of system's regulation and oversight.

In general, regulation can be of two types: (i) command and control, and (ii) incentive based. Command and control regulation is based on centralized management and strict top-down enforcement of administrative commands. As mainstream economic theory states and practice shows this type of regulation leads to its own inefficiencies.

Incentive based regulation is associated with a set of well defined economic rules to guide individual behaviour to a socially desired optimum. Therefore, major problem in such a case is the design of such set of rules. For example, the so-called inflation targeting is a monetary rule that defines some interval for inflation to move in. This is achieved by a variety of monetary transactions associated with the rule. Eventually it anchors inflationary expectations of individual economic agents and significantly reduces systemic risk and uncertainty in an economy. Some countries introduced fiscal rules that govern budget deficits and/or surpluses in their economies. In general, rules are transparent and well-understood by economic agents, which cause their predictable behaviour as well as predictable behaviour of the whole economic system.

Design of such rules is based on specific features of economy under question. Eventually it eliminates the so-called command and control, administrative or what is called “manual regime of economic management” or simply manual management popular in economies in transition. Manual management implies that government or any other authority makes decisions on critical points in economy every time these points arise, and the decisions made can be different in similar situations. Instead of the so-called automatic stabilizers and systemic view, in such a case economy becomes a subject to unpredictable voluntaristic subjective decisions. However, if we accept the statement that economy is a system, then we have to accept the statement that it cannot be a subject of manual management in principle. Let us illustrate this on the basis of Russian economy.

Russian economy

In the first half of 2012, Russian GDP grew at a 4.9% rate, fixed capital formation grew at 4.7%, and retail turnover galloped ahead at a rapid 6.9% annual rate. There was also a 3% growth in disposable incomes and a strikingly large 10% decline in unemployment to a post-Soviet low. In 2012, Russia officially surpassed its pre-crisis GDP with lower levels of both unemployment and inflation. So it looks like the Russian economy is in a better shape than it has ever been: prices are more stable, more workers are active, and investment and consumption are increasing (Forbes, 2012).

However, on the other hand there are some areas of real concern. Industrial production, for example, shrank by 0.6% from May 2012 to June 2012, as did the overall volume of paid services. In June of 2012, freight turnover and rail transport have slumped by 5% and 5.5% respectively. These areas, particularly rail transport, tend to be a bit more sensitive to market conditions than other indicators since they are less influenced by government spending and social guarantees. This fact showed a kind of slow-down in Russian economy which occurred in the second half of 2012. This slow-down was due to rising inflation, weakening domestic demand and sluggish external demand.

There are some other factors of concern as well. At the beginning of 2012, the state share in Russian economy has reached almost 50% with 30% being the world’s average. According to research by Julia Tseplyaeva and Yury Yeltsov from BNP Paribas, the share of Russian

companies under state control has significantly increased as well. In the oil sector – a backbone of the Russian economy – government control has grown from 10% in 1998-1999 to the current 40-45%. In the banking sector, Russian government controls about 49%, with the transport sector standing at 73%. It looks like Russia follows the so-called state capitalism approach. However, economic system being built in Russia is not exactly what is known as state capitalism. According to Felix Goryunov (2012) state capitalism endorses not only macroeconomic regulation of the market economy, but also its direct guidance. It is achieved along the lines set by the state industrial policy, which is followed by the state-owned enterprises and funded by the state-owned banks.

Classic example of this type of capitalism is Chinese economy. Goryunov (2012) argues “*The Russian government can only indirectly influence the economy’s performance since the role of state-owned businesses even in key industries is either limited or non-existent. This makes state governance of the economy no less important than state macroeconomic policy. Not counting the ad hoc “manual management” of enterprises and whole industries that has been from time to time practiced by Putin, formally all Russian companies enjoy a liberal economic regime for doing business. However, their business is closely monitored by numerous federal bodies as well as by regional and local administrations, tax-collecting and law enforcement agencies*”.

In a sense, Russian economy is a market economy without market. Private property rights are not well defined and enforced; they are not transparent and transferable in Western sense. Competition is limited and government involvement as stated above is sizeable. Moreover, high mobility of all economic resources – fundamental feature of a market economy – is not present in Russian economy as well as equal access to information including financial information.

A number of factors are weakening the Russian economy, the World Bank said in its 2012 report: The aging population, unproductive workers, and business executives who are reluctant to invest over the long term, fearful of risk in general but with specific concerns about Russia. The World Bank report called low capital investment a particular concern. Russia is spending on factory equipment, trucks and airplanes at a level typical of more developed economies like Germany but return on these investments is not that high.

Actually high oil prices have only obscured Russian economic vulnerabilities. Russia had a budget surplus equivalent to 0.8% of gross domestic product in 2011. However, the above-mentioned structural problems pose a challenge.

Another big problem is Russia's workers. They are far less productive than their counterparts in the wealthy countries in the Organization for Economic Cooperation and Development (OECD). Hour for hour, Russian workers produce only 43% of what their counterparts in developed countries do, the report said.

Increases in public-sector spending since 2008 helped the economy but also increased the risks of budget deficits if oil prices decline. Government welfare spending accounted for 11% of Russian household incomes in 2007; by 2011, government spending made up 18%. Such benefits for the population are extraordinarily difficult to reverse without dire political consequences

(http://www.nytimes.com/2012/03/28/business/global/russian-economy-slow-to-recover-world-bank-says.html?_r=0)

One interesting fact: At the beginning of December of 2012, Goldman Sachs excluded bonds of Russian stock market from the so-called Global Emerging Markets (GEM) List. Chief Economist of Goldman Sachs responsible for Russia announced that his bank cannot recommend Russian bonds as attractive for investors because of uncertainty in the development of a series of Russian industries.

It has become apparent that the command and control style of economic management or the so-called manual management of economy is leading to diminishing marginal returns speaking in economic language. Efficiency of such regulation is fading away. Despite frequent announcements about stability of Russian economy made by Russian President as well as Prime-Minister, Western investors and experts are sceptical about the future of Russian economy in its current state. This was emphasized by three negative scenarios of the Russian economy development presented at Davos Economic Forum in January of 2013.

Sergey Guriyev, Head of the Russian Economic School (RES), presented perhaps the gloomiest situation. He argued that a split in the Russian elite could force eventual, possibly sudden, change, in the country. The status quo *“is not sustainable simply because the Russian middle class will grow and demand reforms,”* Dr. Guriyev said.

Over the past 10 years, oil and gas riches trickled down to a new middle class, he argued. *“Now, more income doesn’t make people happy,”* he said, adding that this Russian class *“is unprecedentedly educated and rich for a country with such outdated political institutions.”*

The other two scenarios were presented by Oleg Tsyvinskiy, Professor of Yale University and RES and Alexei Kudrin, former Finance Minister of Russian Federation. Tsyvinskiy argued that regional misbalance is the basis of future economic problems in Russia. He emphasized the need for new administrative reforms that should be introduced from the top. In his opinion, declining oil price could be a good incentive for such reforms.

Kudrin’s scenario was entitled “Fragile Instability”. It is based mostly on the slow-down of the world economy and decline in oil prices. According to Kudrin, taking into account large share of government spending in Russian economy, declining oil prices eventually could reduce investment in infrastructure and economic development in general. He also emphasized concern over increasing government share in resource industries.

The above discussion leads to the following conclusion: Time of manual management in Russian economy has passed. Now is a turning point, and if Russian leadership does not recognize it, development of Russian economy will follow the most pessimistic scenario. Sharply needed structural reforms should be based on incentive base philosophy with optimal rules replacing command and control regulation or the so-called manual management of Russian economy.

References

Arber, Werner (2011), Molecular Darwinism: The Contingency of Spontaneous Variation, *Genome Biol. Evol.* 2: 1090-1092

Bonatti, Luigi and Haiduk, Kyril (2010), "Dualism and growth in transition economies: A two-sector model with efficient and subsidized enterprises", Paper No. 15, University of Trento, Italy
http://www.unitn.it/files/download/8303/15_10.bonattihaiduk.pdf

Economics.about.com at http://economics.about.com/cs/economicsglossary/g/network_ex.htm, accessed on 16/02.1013

Forbes, 2012

<http://www.forbes.com/sites/markadomanis/2012/07/18/russias-economy-in-2012-a-strong-start-and-an-uncertain-future/>

Goryunov, Felix

http://rbth.ru/articles/2012/03/23/what_kind_of_capitalism_has_russia_built_15160.html

Lewis, W. Arthur (1954), Economic Development with Unlimited Supplies of Labor", *Manchester School of Economic and Social Studies*, Vol. 22, pp. 139-91

Myers, Allan (2012), "Individualism and capitalism", *Direct Action*, Issue 37: December-January 2012 (http://directaction.org.au/issue37/individualism_and_capitalism)

Shapiro, Carl and Hal R. Varian (1999), *Information rules*, Harvard Business Press