



## EVOLUTION OF "RULES OF THE GAME", MACROECONOMIC DYNAMICS AND REFORM POLICY

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**Abstract:** The impact of institutional arrangements, the "rules of the game", in terms of Douglass North's definition, on macroeconomic dynamics has been largely detected in the economic-historical records. However, clarification of the nature of institutional currents and their relationship with the paths of economic growth is a challenge for contemporary economic theory. The paper will present a retrospective of the conceptualization of institutional change as a process that mimics the evolutionary systems, relying on relevant theoretical concepts and selective empirical material that is contained herein. In this sense, the paper gives insight into the important contributions reflecting on the relationship between institutions and economic growth, the evolutionary theory of socio-economic changes and their possible implications for the current reform process. Total of argumentation offered in the paper indicates stability and inertia of institutional structures, whose dynamics is prone to path dependency. Insisting on universal reform solutions, neutral with respect to local circumstances in the process of stimulating economic growth, turns out to be ineffective.

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### 1. Introduction

The indisputable dominance in the theory of economic development of neoclassical economics stems from its superiority in the analysis of the main

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manifestation of the macroeconomic dynamics - economic growth. Rigorous mathematical models created within the neoclassical tradition thoroughly and consistently explain the mechanics of growth in national output over time, basing on the concepts of the aggregate production function, the utility function of a representative consumer, diminishing returns on investment of the individual factors of production and so on. A key event in the development of the neoclassical theory of economic growth is the Solow - Swan model (Barro, Sala-I-Martin, 1995). Depending on the constellation of important parameters (technological capabilities, population growth and savings rate), the neoclassical theory of economic growth suggests the possibility of an absolute or conditional convergence growth of economies at different development levels. The next generation of neoclassical growth models was occupied with the endogenization of technical progress, by incorporation of innovation and the concept of human capital, knowledge spillovers, externalities and economies of scale in the industry due to the effects of technological progress, imperfect market structures that support it , etc. (Barro, Sala-I-Martin, 1995).

There are remarks that both generations of neoclassical models of economic growth are characterized by reductionism, because they ignore the real economic dynamics, dominated by evolutionary and complex (but not perfect) knowledge, limited (rather than absolute) rationality of the actors, radical uncertainty and etc. (Castelacci et al . 2005, p 104). The formal models of economic growth must adjust their methods to modelling entities that cannot be easily reduced to a group of numbers. Areas that are designated as a challenge to the theory of economic growth are the nature and development of technology, the behaviour of firms and other organizations applying technology and institutional environment that shapes that behaviour (Nelson, 1998, p. 514-516).

Critics of the neoclassical theory of economic growth are an integral part of the now voluminous corpus of critics addressed to the general epistemological orientation of this stream of economic thought (Stefanović, 2012). The neoclassical model of economic processes is undoubtedly a powerful analytical framework, characterized by solid logical relations, formal rigor and suggestiveness. However, the realism of the initial assumptions is to some extent sacrificed for the sake of the aforementioned methodological virtue of the neoclassical approach. Because of its pretensions on the spatial and temporal universality, neoclassical economics is forced mostly to ignore the cultural, historical and sociopsychological contents, which are inevitably linked to the economic process.

Numerous and heterogeneous impacts of the above mentioned structures on the behaviour of actors present at different levels of the economic process are unified under the theoretical concept of institutions. There is a very rich scientific production of efforts within contemporary economic theory on the conceptualization of the phenomenon of institutions. Without going into their

various attributes, for further consideration will be enough to consider institutions as the rules of conduct – rules of the game in society - which may consist of written and unwritten rules, with the property that, since they exercise a lasting influence on the actions of individuals, they create what might be called patterns (regularities) of behaviour in society (in more detail in: Stefanović, 2009).

Interest of economists for the institutional component of the economic process, however, is present from the very beginnings of modern economic science, and is especially pronounced within the heterodox economic thought (Historical School, Old Institutionalism, the Austrian School and others). The legitimization of institutions as the focus of economic orthodoxy is related to the impact of New Institutional Economics, which is confirmed by the awarding of the Nobel Prize to its prominent protagonists (Coase, North, Williamson).

The aim of this paper is to highlight the importance of the rules of the game, embodied in institutional structures in shaping economic dynamics, in the sense that the quality of the rules, along with the "classic" growth resources, affects the quality of economic development. In this sense, the paper presents recent efforts to overcome the inability of neoclassical economics to incorporate institutional dimension into its mechanistic epistemological framework. The paper also presents some of today's influential efforts to integrate institutions in the theory of economic growth. Then, the paper elaborates understanding of institutional dynamics as evolutionary phenomena. The evolutionary framework of thinking about economic dynamics suggests a diversity of solutions related to stimulating economic growth, sensitive to local circumstances. The solutions that tend to the spatial and temporal universality, in this sense, cannot be sufficiently effective as the model for the current reform process.

## **2. Institutions and Economic Growth - Myrdal, North and Olson**

The undisputed founder of the incorporation of institutional structures in the theory of economic growth is Myrdal (1978). According to his view, the economic system is an institutional complex, which passes through the process of continuous development. Due to a continuous flux of the system, the mathematical correlations between the variables cannot be accurately measured. Therefore, the theory should abandon the mathematical models and put the institutions at the centre of attention (Myrdal, 1978, p. 774). Economic process is evolving institutional complex, which belongs to a much larger complex of culture. Economic dynamics can be studied only in the context of its overall demographic, social, ideological, and political environments (Myrdal, 1978).

In an effort to empirical verification of the impact of property institutions on economic efficiency of different economies, North and Thomas (1973) conducted a study of economic history of some Western countries. They started

from the claim that economic development is the result of traditional development factors (technology, demographic potential), but essentially depends on the subtle influence of social institutions, particularly those that define property rights. North and Thomas (1973) observed the asymmetric development of property institutions in different countries of the West. In the UK and the Netherlands the system of stable and well-protected private property rights was created. In other Western countries (France and Spain) economies were long dominated by inefficient forms of ownership, which are responsible for their delay in the development of capitalist institutions.

In order to explain such path of institutional evolution of the countries of West, North (1990) introduces a conceptualization of institutions as humanly constructed constraints that structure political, economic and social interaction (North, 1990, p. 3). In this sense, institutions are the rules of the game that affect the incentives for exchange, while organizations and individuals are players. The effects of institutions as the rules of the game in the economic process are manifold - they affect motivation, regulation of property rights, assist individuals to overcome the problems generated by uncertainty in the environment etc. A distinction between formal and informal institutions is also introduced (North 1990, p. 3). Formal institutions are embodied in the legal system (constitution, laws), while informal institutions are of unwritten nature (culture, tradition, customs and beliefs).

Informal institutions have strong and firmly rooted impact on the behaviour of agents. Their influence on the agents is reflected in the existence of the so-called "mental models", actors' beliefs about environment structure and acceptable and desirable social behaviours. Individuals who live in the same society are exposed to the same cultural and historical influences, will have similar mental models, which will strongly affect their behaviour (Denzau, North, 1994). The problem is that in some societies, historical circumstances and cultural environment generate informal institutions that are not compatible with private property and a market economy.

The different institutional structures of advanced capitalist economies are replicated in their former colonies. In North America, the institutional evolution was dependent on appropriate courses in the UK, which at the time of the formation of British colonies in this part of the world was marked by the culmination of the struggle for parliamentarism, religious and political pluralism, decentralized political system, protection of property rights on the commodity and factor markets etc. (North, 1991, p. 110). On the other hand, "South of the Rio Grande", the Spanish and Portuguese colonies institutional flows are formed during the domination of dynasties over the parliament, so that newly established institutions aimed at creating a strong central bureaucracy, common religion, a detailed bureaucratic regulation of the entire economic and political life of society etc. Economic and political entrepreneurs

were, therefore, encouraged to realize their objectives by establishing control or influence over bureaucratic apparatus (North, 1991). Gaining independence in these states produced attempts to establish institutional regimes modelled similar to the United States. However, new formal institutions (constitutional solutions inspired by the U.S. a constitutional regulation) did not find reflection in the behaviour of actors. Despite similar ideological framework, design of institutional arrangements in the former colonies of Great Britain and Spain were divergent. The United States has evolved under English influence institutions that generated impersonal exchange, political stability and allow the appropriation of the effects of modern technology. On the other hand, "personalistic relationships" that continue to dominate the Latin American countries, caused economic and political instability, thereby significantly reducing their ability to realize opportunities arising from new technologies (North, 1991, p. 111).

A significant step forward from the neoclassical framework of economic growth is Olson's (1996) explanation of the economic backwardness of the less developed parts of the world. He gives a specific interpretation of the influential thesis of the economic orthodoxy of efficient financial markets, according to which, given the availability of information released in market transactions, it is not possible to realize the yield higher than normal on securities, so that a random selection of portfolios, on average, gives the same yield as professionally directed investment. Other investors, using available information, contribute to such configuration of supply and demand, that prevent the appropriation extra yields in the financial market by a single agent. This conclusion is articulated through the metaphor of banknotes denominated in a large sum left on the sidewalk, which actually cannot be found, because someone else picked them up (Olson and Kähkönen, 1998, p. 9). Generalized to the economic efficiency of different nations, theory of efficient markets implies that any economy can achieve a return on the resources invested only up to the average in the world economy, in line with the value of the resources that are put into production. If, therefore, the return on investment in the world economy is known and may not significantly deviate from the global average, the economic underdevelopment of the nation can only be explained by insufficient provision with resources, physical and human capital. Nations are already on the production possibilities functions frontier, and their underdevelopment can be overcome only through the further accumulation of physical and human resources. Reasoning about "large bills on the sidewalk", thus can be considered valid for economic development of different nations as well (Olson and Kähkönen, 1998, p. 9-10).

Olson (1996) challenged the aforementioned conclusions of economic orthodoxy, in the sense that an insufficient supply of resources cannot be a major cause of the economic backwardness nation. The conventional

explanation based on diminishing returns to capital and natural resources (due to overpopulation in the less developed countries) would imply induced migration and equalization of differences in per capita incomes across countries. Drawing on empirical evidence this author shows that mentioned equalizing of yields does not take place, which can be illustrated by an example of migration between the U.S. and Europe - at the time of the most intensive migration of Europeans to America, the gap was not reduced, it actually started to decrease only after the migration was significantly reduced after the Second World War (Olson 1996, p. 8-11). Return on capital also should be uniform across the national economies, as the movement of capital to preferred areas with high returns on investment (from areas with low yields) should lead to the annulment of national differences in returns. Referring to the continuing unequal distribution of capital across countries, Olson concludes that, given the availability of capital, the national economies are not on the production possibilities functions frontier (Olson 1996, p. 13-15). The differences in the available human capital can also be a determining cause of various economic disparities across countries. Author refers to the comparison of East and West Germany, China and Taiwan, as well as North and South Korea, which, in spite of a similar human capital stored in their population in the relevant period had significantly different dynamics of economic growth (Olson 1996, p. possibilities. 15-19).

Referring to the above mentioned findings, Olson (1996) concludes that the supply of resources does not crucially dictate economic efficiency, and that there is considerable scope for moving towards the frontier of production capabilities - there are, therefore, "bills that can be picked up on the sidewalk". The problem is that less developed countries have not developed a collective incentive structure that could exploit the aforementioned potential to improve economic efficiency, or to become capable of "picking up banknotes from the street" (Olson 1996, p. 6). These structures, however, do not arise spontaneously, but are the result of prevailing institutions within the borders of one country, relating to the protection of contracts and property rights, constitutional arrangements, the organization of the political process, the impact of monopolies etc. (Olson 1996).

Accordingly, rather than by exclusive reliance on the accumulation of resources, less developed countries have the opportunity to improve their economic efficiency and significantly reduce the gap in relation to the developed world by improving their own institutional arrangements. Olson points to important directions for improving the institutional arrangements that would ensure the collection of "free bills on the sidewalk", and the acceleration of economic growth, regardless of the accumulation of development resources. They primarily include the abandonment of those segments of income redistribution that reduce incentives for production. In addition, they include the establishment of missing markets, particularly those that base on contracts

whose implementation is urgently dependent of the coercion of the "third party" (especially important measure for attracting capital). Finally, reforms should lead to eliminating unreasonable policies that are socially inefficient (Olson and Kähkönen, 1998, p. 10).

Even when it does not ignore the problem of institutions, the neoclassical understanding of economic dynamics specifies it in a fairly rigorous and exclusive way. Specifically, the neoclassical model leaves room for only one institutional pattern that is "neutral" with respect to the economic process, which creates no friction and does not interfere with the mechanism of market equilibration (Dosi, Rovira, 2008, p. 330). The problem is that there is no real economy with such a finely "tuned" institutional structure. All that is in the neoclassical model considered as market failure, and does not fit into its theoretical framework - innovations, externalities etc. - in the real world is in fact a generator of economic growth (Dosi, Rovira, 2008, p. 330).

Whatever the definition of social institutions - the patterns of thinking, collective action that control individual behaviour, humanly constructed constraints that structural social interactions (in more detail in: Stefanović, 2009, p. 16-18) - they inevitably interact with technology: motivate its adoption and implementation, affect the rate of absorption of technological solutions, their diffusion etc. Institutions exert multiple effects in all of the stages of the implementation of new technological solutions, or the use of existing technologies. The link between technology and economic growth, therefore, remains vague, if it ignores the theory of institutions, much as this theory itself heterogeneous and imperfect is. In terms of solving the aforementioned relations, of some help can be Nelson's (2008) distinction between physical and social technologies. Physical technologies include the recipe for performing activities in order to obtain a certain outcome. Since it involves the participation of several actors, they need to be coordinated through the division of labour, which is a social technology. Social technologies are intertwined with the structures that create the conditions for their use and dictate their dynamics - the laws, standards, governance structures, etc. - that is, with the institutions of society (Nelson, 2008, p. 3-6).

### **3. Institutional Dynamics as an Evolutionary Phenomenon**

Given the now widely econometrically proven role of institutions in shaping the trajectory of economic growth, the task of cardinal importance is the explanation of the nature and mechanisms of their change (Acemoglu et al. 2001, Acemoglu et al. 2003, Acemoglu, 2006, Rodrik, 2004). North (1981, 1990) has relatively long searched for an adequate theoretical framework for the explanation of the institutional dynamics. His final position on this issue is the theory of the evolution of mental models (Denzau, North, 1994). Individuals

make their choices in accordance with their mental models, and correct them when the results of the choices are not consistent with expectations (North, 1995). Change in mental models follows the path of punctuated equilibria, which means that it is a slow, gradual process, which in some points is interrupted by relatively short periods of more dramatic changes, which involve the reorganization of concepts and categories within the mental models of individuals. Following this, disruptive changes, is the continuation of the normal process of learning which occurs only through parameter changes within the mental model. Simultaneously with this process, perception of the world by leading ideologists also changes, meaning that ideology also evolves. When finally the ideology is changed, it generates a new, disruptive change of mental models of individuals (Denzau, North, 1994, p. 25). Thus, there is a strong correlation between the evolution of mental models of individuals, ideologies that arise from them, but also exert influence on them, and the evolution of institutions that structure interpersonal interactions. North persistently pointed out that the dynamics of institutions, particularly informal ones, is largely a process characterized by inertia and gradualism (North, 1994).

Conceptually rich theory of institutional change is provided by the theoretical stream of institutional economics inspired by the Veblenian understanding of the evolution of "habits of thought". Veblenian economics considered institutions as the conservative factor of socioeconomic dynamics, which evolves in accordance with the principles of the Darwinian theory of evolution in biology (Stefanović, Mitrović, 2006).

Recent contributions to the theory of institutional evolution in Veblenian tradition generally share the view that the economic dynamics can be understood as an evolutionary process driven by Darwinian principles. In this sense, the economic evolution is viewed as a process that takes place over the population "units" that are exposed to the principles of variation (diversity of units) , heredity (the possibility of intergenerational transmission of certain characteristics of units) and selection (different frequencies of transmission of certain traits within a population over time) (Hodgson, 1994). Given that it takes place in historical time, and is shaped by the local context, economic evolution is naturally "sensitive" to cultural, historical and socio-psychological circumstances (Dosi, 1991, p. 6).

More generally, evolutionary thinking is a peculiar epistemological orientation. Its features are organicistic conceptions of reality, giving priority to population thinking over typological thinking in science and rejecting any kind of determinism in terms of predicting the outcome evolutionary process (Hodgson, 1994, p. 113-117, Hodgson, 1995, p. 482).

Darwinism in economics is transferred from biology, but over time it is extended to include a broader meaning. In this regard, there are efforts to



generalize Darwinian approach to the level of epistemological framework that is suitable for the study of systems that have certain characteristics - biological, social and others. Accordingly, so-called "Universal Darwinism" or "Generalized Darwinism" should describe phenomena that have properties of the "complex population systems" (Hodgson, 2007, p. 265-266). Complex population systems should have the following characteristics: they represent the population of mutually different units, faced with limited resources and local problems of survival; an adaptive solution generated in the struggle for survival can be maintained over time and transferred to other units through the broadly defined mechanisms that ensure the operation of the principle of inheritance (Hodgson, 2007).

Articulation of Generalized Darwinism as a general epistemological framework in various complex population systems to which it can refer, must respect their peculiarities. In this sense, the elaboration of Generalized Darwinism in economic theory has the task of finding specific mechanisms, in accordance with universal Darwinist principles, that shape the evolution of the economy. Accordingly, answers should be looked for to the questions relating to mechanism of generating variation, natural selection mechanisms and criteria, the mechanism of inheritance etc. (Aldrich et al 2008, p. 584-585). Fundamentally important task is to determine the entity that "carries" the economic evolution, whose viability is tested by the selection pressure, in the long-run. This entity would need to have the ability for intergenerational transfer of its properties, similar to the genes in biological evolution. It is the genotype that is the principal "target" of evolution, while its immediate objects are specific units that carry the gene, in biology presented by phenotype. In more modern evolutionary terms, these two entities are conceptualized as a replicator and interactor (Aldrich et al. 2008). Replication is a causal relationship between entities where there is a substantial similarity between the original and replicated units and where the transfer of information about solutions related to survival also takes place. On the other hand, the interactor is an entity that directly, as a cohesive unit, enters into reaction with the environment, in such a way that the interaction becomes a differential (Aldrich, et al. 2008, p. 586).

Thus, the main actor in the economic evolution should be the entity that is sufficiently durable, has the capability of replication and carries some solutions in the fight for survival. The popular version of evolutionary economics holds that the role of replicators is played by habits and routines, and that the major "candidate" for interactors are firms and similar organizations (Hodgson, Knudsen, 2004). Habits are the disposition of certain types of behaviour, which are generated by repetition of thoughts or behaviours, which are stored in the human nervous system. These dispositions are converted to behaviour only in certain circumstances. Habits are as dispositions sufficiently durable to be the

subject of evolution, and also have the capability of replication through imitation (Hodgson, Knudsen, 2004, p. 286-289). Important determinants of the transformation of habits into behaviour are institutions. Social institutions stabilize and channel both habits and behaviour (Hodgson, Knudsen, 2004, p. 289). The routines are organizational dispositions that can stimulate certain patterns of behaviour of individuals within the group, in form of sequential respond to cues. In organizations some sort of mixing of the habits of their members takes place, in the sense that the habits of a member is the environment of another, so that such an environment can stimulate some new behaviours that can lead to changes or replication of parts of the environment (Hodgson, Knudsen, 2004). Routines can be considered as sets of habits which, when triggered by circumstances, lead to a sequential behaviour within the group. Let it again be noted that the habits and routines are subject to evolutionary principles of variation, heredity and selection.

Pelikan (2003) seeks to bridge the differences between the influential definitions of institutions - the North's (1990) definition (institutions as constraints) and Nelson's (2002) (institutions as social technologies), introducing a distinction between rules-constraints and rules routines (Pelikan, 2003). The first type of rules is institutions as the constraints that structure human interaction. The second type of rules applies to concept of routines that link individual behavior towards the achievement of specific choices. Institutions limit the set of possible choices, and routines define the way in which within a limited set of possible choices individual performs a specific choice. (Pelikan, 2003). Institutions assist in the choice of individuals in a number of ways: by making predictable choice of other individuals, by introducing individual to methods of individual choice with which he was not familiar, by easing his choice when choosing between alternatives etc. (Pelikan, 2003, p. 4). Institutions are divided into formal and informal, with the informal institutions change more slowly. On the other hand, routines define the ways in which individuals, within the limits defined by the institutions, make choices in different areas of their work. Routines are hierarchically organized, similar to "programs". Collections of the routines are technologies that can be divided into physical and social (Pelikan, 2003). Essentially, the institutions are related to collective entities (society, economy), while routines "belong" exclusively to individuals (Pelikan, 2003, p. 7). Every economy is a peculiar combination of legally established and culturally conditioned institutional arrangements, that evolve, but still are stable enough to enable the classification of a single economy in the appropriate model of capitalism. According to the Pelican, there are two types of economic policy, institutional and resource-allocational. Institutional policies aimed at changing institutional arrangements define the possible choices. Resource allocation policies apply to specific areas of the economy. Institutional policies have cardinal importance, since they define potential resources that governments can use in resource-allocation policy.

Present institutional arrangements determine what will be the mix of fiscal, monetary, industrial and social policy (Pelikan, 2003, p. 14). Between institutions and technology, there is a mutual dependency. Institutions that allow freedom of experimentation and innovation, and protect property rights provide incentives for the development of new technologies. The capacity of institutional structures to generate innovation can be labelled as potential for innovation. New technological solutions, in turn, may be too advanced for the current institutional structure; they may go beyond their absorptive capacity. It generates pressure to change existing institutional structures. From the time when new technology is introduced, its evolution begins, which is simultaneous with the evolution of institutional arrangements (Pelikan, 2003, p. 22). However, there is some tension between the natural tendency of institutions to stability, which is indeed necessary to maintain minimum social coordination, and the need for permanent expansion of their absorptive capacity. The modern economies are open and exist in an environment with pronounced limitation of resources and fierce competition. Thus, to be able to keep up with international rivals, national economies must maintain a high rate of technological progress, which is inconsistent with the requirement for the stability of the institutional structure. In order to reconcile these two conflicting requirements, the national economy must respond to the delicate task of shaping the institutions through which they will simultaneously achieve high innovation potential, and the corresponding absorption capacity to deal with new technologies (Pelikan, 2004, p. 24).

The protagonists of evolutionary macroeconomics consider economy a dissipative structure, which transforms the energy input into output. The system is characterized by permanent imbalances, but also by homeostasis and, there are continuous efforts to attract more energy to maintain the dynamics of the system (Foster, 2011). The disintegration of the system is prevented by the meso-rules, which provide short-term stable macroeconomic trends. These rules are hierarchically structured and can be recognized in the institutions of society (Foster, 2011). These rules are divided into physical, which provide knowledge about the transformation of the energy inputs and social, that dictate relations to other agents. Economic growth is only possible through the expansion of investments aimed at innovation, and this is possible only by changing the meso-rules. (Foster, 2011). In other words, the evolution of meso-rules and institutions is closely associated with the path of economic growth of different societies.

#### **4. Messages for Economic Reforms - Locally Adapted Versus Universal Solutions**

As it can be concluded from previous findings, there is a strong relationship between institutional structures and economic development. The dynamics of institutions affect economic growth by shaping the motivation of the actors, the

system of property rights, the absorption of new technology solutions etc. However, institutional change is extraordinarily complex phenomenon, which, according to the majority position within relevant economic theory, has evolutionary character. Regardless of whether it is in accordance with the principles of Darwinian evolution, or in compliance with any other mechanism, the institutional evolution is the long-term, probabilistic process, with multicausal dynamics. Every economy is a culturally and historically conditioned conglomerate of various institutional arrangements, differently responsive to changing circumstances. Therefore, systemic interventions in institutional structures, present within economic reforms, must demonstrate sufficient sensitivity to local circumstances, incentives and power relations. The particularly delicate segment are informal institutions that are strongly rooted in and have significant impact on the economic actors. The informal institutions can rightly be considered as a kind of "quasi-genetic" structures of the economies. In the literature on post-socialist transition, informal institutions are occasionally denoted as "Social genotype" - the system of rules of functioning of large-scale communities, capable of intergenerational transfer, difficult to change, and particularly noticeable in the great social transformations, such as the transition process itself (Sekulović, 2004).

A valid orchestration of institutional change, in terms of harmonization between the transformation of formal and informal rules, must be a central concern of any serious reform of the attempt. Informal institutions, as an invisible, but firmly rooted component of the institutional structure, in this regard, given their unpredictable currents and effects, in an extraordinarily complex way influence institutional policy. Informal institutions, as Madžar (2008) points out, are not easy to detect because the range of situations in which they are authoritative and binding is not always sufficiently known. On the other hand, although they are difficult to determine, informal institutions are still widely dispersed, nuanced and very powerful (Madžar, 2008, p. 20).

Flows and the effects of institutional reforms essentially are determined by the reaction of informal rules to newly introduced formal standards. In this sense, perhaps mimicking North's (1990) understanding, Coyne and Boettke (Coyne, Boettke, 2006) point out that we should distinguish between foreign and domestic institutions. The latter group of institutions indicates the Greek word *mētis*, which means the practice verified as a set of norms that people within a community accept in the communication between themselves and with the physical world, in order to achieve mutually beneficial goals in a coordinated manner (Coyne, Boettke, 2006, p. 55). Regardless of the fact that institutions that characterize a successful capitalist economy are known, establishing them in every economy that has not yet been entered into the trajectory of stable economic growth, is not guaranteed. The application of these institutions face with the aforementioned group of domestic institutions, embodied in social

conventions and practices, by which they have to be legitimized. To be effective, institutional changes must either be aligned with national institutions, or encourage their adaptation (Coyne, Boetke, 2006, p. 55).

Similar to the above-mentioned understanding Pejovich (2001) links the transformation to a market economy to the change in the system of property rights. Ownership regime is gradually transformed through voluntary and repeated interactions between individuals, and is ultimately built into the system of formal and informal rules of society. The possibility that the ruling elite impose a new system of property rights is allowed. Exogenously institutionalized property rights aims to impose new rules on actors performing transactions. The outcome of exogenous changes in property rights depends on the prevailing profile of informal norms, so-called "ethos". If the reaction of the ethos to a new proprietary system is conciliatory, then the costs of monitoring and implementation of the new property rights increase, which ultimately may be prohibitive for further changes. In other words, according to Pejovich (2001), changes in property rights which are of an organic nature and originate from the inside, through voluntary and repeated interactions between actors are more likely to survive than those that are exogenously imposed by state authorities.

A significant amount of caution is, therefore, required when institutional arrangements, originated in very different historical and cultural circumstances, or even in abstract theoretical systems, are transferred to less developed economies. However, such an approach dominates the politics of the relevant international organizations towards the less developed world. In fact, the model of economic reform imposed to these economies, is the universal recipe, firmly based on the neo-liberal economic paradigm, which largely ignores domestic institutional circumstances.

A broad set of simultaneous institutional changes should, in the opinion of the protagonists of this approach, eliminate the main problem of less developed economies - inhibition of the market mechanism. Changes in institutions conjoined with the standardized reform recipe - liberalization, stabilization and privatization – are aimed to reshape developing economies in accordance with the economic model that consists of pre-known, superior and universally applicable institutional arrangements (Rodrik, 2008, p. 100). This model is strongly opposed by the experiences of the fast-growing economies of East Asia, which have in recent years achieved impressive episodes of economic growth, while systematically bypassing neoliberal universal recommendations and taking into account the local institutional circumstances (Rodrik, 2002).

Equally useful can also be the insight into the experiences of developed economies in the process of institutional transformation catalysed by the need to adapt to the trends of globalization. The focus of the required changes is to release the coordination potential of the global market by removing barriers to

the free movement of factors of production and by loosening social control of the market mechanism.

The leitmotif of launched changes, that do not bypass any important segment of the institutional organization of the economy, is liberalization. However, the expansion of market coordination methods generally do not cause dramatic developments in the institutional space of developed economies. Intensity, depth and dramedy of changes in relevant segments of the institutional structure are not equal, and are strongly dependent on the induced evolution of existing local institutions. Thellen (2009, p. 192) estimates that the current institutional reforms in developed countries do not represent a frontal attack on the existing structure, but more subtle change, which may involve their unfolding which does not put formal institutional stability into question. The evolution of institutional arrangements in developed economies caused by liberalization is a conglomerate of changes different in scope, intensity and depth, which can have as their ultimate outcome a radical reconfiguration of the coordinating profile of the system.

Refurbishment of socio-economic organization of successful market economies takes place through a combination of the following types of changes: displacement of institutions (the gradual growth of institutions of lower rank or imported practices in relation to the dominant, outdated institution); layering (gradual institutionalization of the new arrangements by adding "layers" to outdated, but firmly established practices); drift - erosion or atrophy of institutions (intentionally defecting institutional arrangements); conversion (redirecting existing institute to other goals and needs) and exhaustion (gradual extinction of outdated institute) (Streeck, Thelen, 2006, p. 31).

The political economy of comparative capitalisms produces a rich record of the institutional trends in successful capitalist economies generated by the liberalization process. Empirical flows regularly illustrate properly orchestrated and with the principle of social profitability consistent changes in successful capitalist economies. Changes are taking place in the broad institutional space of the economy: corporate organization, industrial relations, the financial system, the welfare state, the orientation of economic policy etc. However, judging by past experience, the patterns of their implementation are varied and well aligned with local conditions, resources and needs (Streeck, Thellen 2005, Stubbs, Underhill, 2006). The transformation of the economy is indeed happening, but it is in fact partly built on the existing coordination structures, and conducted sequentially, without disturbing the coherence of the institutional order.

## **5. Conclusion**

Comparative historical records, as well as relevant econometric studies reaffirm impact of institutions, visible and invisible rules of the game, on the

most significant manifestation of macroeconomic dynamics, economic growth. The quality of these rules, affects the quality, pace and sustainability of economic growth. There is agreement that the change of these rules, which essentially determines the dynamics of economic growth, has the character of the evolutionary process. Some of the interpretations view their change as occasionally dramatic evolution of mental models of the actors. Another group of authors understands the evolution of institutions as a process that is completely determined by Darwinian evolutionary principles of variation, heredity and selection. Regardless of differences in understanding of its mechanisms, there is a consensus that institutional evolution is a slow and probabilistic process. Institutional structures are a kind of quasi-genetic basis of the economy, which significantly influence its allocation performance. Therefore, for any reform process, aimed to improve the long-term macroeconomic efficiency, the question of institutions is of primary importance. Each economy represents distinctive and delicate institutional setting, shaped by the long-term historical practice. The behaviour of institutional setting, given the multiple effects on motivation and coordination of the actors, must be seriously taken into consideration. Reform policy that ignores the possible effects of institutional infrastructure in the process of its implementation, is in serious risk of making allocative capacity of the economy even worse. Economic orthodoxy for a quite long time persists in the neo-liberal model of economic reform in less developed countries, designed in accordance with the neoclassical theoretical framework, where institutional diversity of different economies is generally put aside. The recent frustration with the application of this model may have so far given enough reasons to move towards a new approach of stimulating economic growth in the developing economies, which will make more use of knowledge about the effects and the dynamics of institutional structures.

## References

- Acemoglu, D. (2006) "Modelling Inefficient Institutions" in: Blundell, R., W. Newey, and T. Persson (eds.) *Advances in Economic Theory: Proceedings of World Congress 2005*, Cambridge: Cambridge University Press.
- Acemoglu, D., S. Johnson, and J. Robinson (2001) "The Colonial Origins of Comparative Development: An Empirical Investigation", *American Economic Review*, December, 91(5): 1369-1401.
- Acemoglu, D., S. Johnson, J. Robinson and Y. Thaicharoen (2003) "Institutional Causes, Macroeconomic Symptoms: Volatility, Crises and Growth", *Journal of Monetary Economics*, 50(1): 49-123.
- Aldrich, H., G. Hodgson, D. Hull, T. Knudsen, J. Mokyr, and V. Vanberg (2008) "In Defence of Generalized Darwinism", *Journal of Evolutionary Economics* 18(5): 577-596
- Barro, R., and X. Sala-I-Martin (1995) *Economic Growth*, New York: McGraw Hill.

- Castelacci, F., S. Grodal, S. Mendonca, and M. Wibe (2005) "Advances and Challenges in Innovation Studies", *Journal of Economic Issues*, 39(1): 91-121.
- Cimoli, M. and S. Rovira (2008) "Elites and Structural Inertia in Latin America: An Introductory Note on the Political Economy of Development", *Journal of Economic Issues*, 42(2): 327-347.
- Cimoli, M., G. Dossi and J. Stiglitz (2008) "The Future of Industrial Policies in the New Millennium: Toward a Knowledge-Centered Development Agenda", LEM Working Paper, Pisa.
- Coyne, C. and P. Boettke (2006) "The Role of the Economist in Economic Development", *The Quarterly Journal of Austrian Economics*, 9(2): 47-68
- Denzau, A., and D. North (1994) "Shared Mental Models: Ideologies and Institutions", *Kyklos*, 47(1): 3-31.
- Dosi, G. (1991) "Some Thoughts on the Premises, Challenges and Dangers of an Evolutionary Perspective in Economics", *Journal of Evolutionary Economics*, 1(1): 5-7.
- Foster, J. (2011) "Evolutionary Macroeconomics: A Research Agenda", *Journal of Evolutionary Economics*, 21(1): 5-28.
- Hausmann, R., D. Rodrik, and A. Velasco (2008) "Growth Diagnostics", in: Stiglitz, J., and N. Serra (eds.) *The Washington Consensus Reconsidered: Towards a New Global Governance*, New York: Oxford University Press.
- Hodgson, G. (1994) "Economic Evolution and Natural Selection" in: Hodgson, G., W. Samuels, and M. Tool (eds.) *The Elgar Companion to Institutional and Evolutionary Economics*, Cheltenham, Northampton: Edward Elgar.
- Hodgson, G. (1995) "The Evolution of Evolutionary Economics", *Scottish Journal of Political Economy*, 42(6): 469-488.
- Hodgson, G. (2007) "A Response to Christian Cordes and Clifford Poirot", *Journal of Economic Issues*, Vol. 41(1): 265-276.
- Hodgson, G. and T. Knudsen (2004) "The Firm as an Interactor: Firms as Vehicles for Habits and Routines", *Journal of Evolutionary Economics*, 14(3): 281-307.
- Madžar, Lj. (2008) „Etički aspekti privređivanja i ekonomski učinci morala“, u: Vukotić, V. (red.) *Moral i ekonomija*, Beograd: Institut ekonomskih nauka.
- Marangos, J. (2005) "Why China is a High  $\lambda$  Society?", *Journal of Economic Perspectives*, 39(4) : 933-950.
- Myrdal, G. (1978) "Institutional Economics", *Journal of Economic Issues*, 13(4):771-783.
- Nelson, R. (1998) "The Agenda for Growth Theory: A Different Point of View", *Cambridge Journal of Economics*, 22(4): 497-520.
- Nelson, R. (2002) „Bringing Institutions into Evolutionary Growth Theory“, *Journal of Evolutionary Economics*, 12(1-2): 17-28
- Nelson, R. (2008) "What Enables Rapid Economic Progress: What are Needed Institutions?", *Research Policy*, 37(1): 1-11.
- North, D. (1981) *Structure and Change in Economic History*, New York, London: W. W. Norton Company.
- North, D. (1990) *Institutions, Institutional Change and Economic Performance*, Cambridge: Cambridge University Press.



- North, D. (1991) "Institutions", *Journal of Economic Perspectives*, 5(1): 97-112.
- North, D. (1994) "Economic Performance through Time", *American Economic Review*, 84(3): 359-368.
- North, D. (1995) "The New Institutional Economics and the Third World Development", in: Harris, J, J. Hunter, and C. Lewis (ed.) *The New Institutional Economics and the Third World Development*, London, New York: Routledge.
- North, D. and R. Thomas (1973) *The Rise of the Western World: a New Economic History*, University Press, Cambridge: Cambridge.
- Olson, M. (1996) "Big Bills left on the Side-walk: Why Some Nations are Rich and Others are Poor", *Journal of Economic Perspectives*, 10(2): 3-24.
- Olson, M. and S. Kähkönen (1998) "Introduction", in: Olson, M., S. Kähkönen (ed.) *A not so-dismal Science*, Oxford: Oxford University Press.
- Pelikan, P. (2003) "Bringing Institutions into Evolutionary Economics: Another View with Links to Changes in Physical and Social Technologies", The Ratio Institute, Stockholm, Sweden.
- Rodrik, D. (2002) "After Neoliberalism, what?", <http://www.project-syndicate.org/commentary/rodrik7/English>, Accessed: 27.09.2002.
- Rodrik, D. (2004) Getting Institutions Right: [http://files.wcfia.harvard.edu/807\\_ifo-institutions%20article%20\\_April%202004\\_.pdf](http://files.wcfia.harvard.edu/807_ifo-institutions%20article%20_April%202004_.pdf)
- Rodrik, D. (2005) "Growth Strategies", in: Aghion, P., and S. Durlauf, (eds.) *Hanbook of Economic Growth*, Vol. 1A, North Holland.
- Rodrik, D. (2008) "Second-Best Institutions", *American Economic Review*, 98(2):100-104.
- Sekulović, M. (2004) *Ogledi o tranziciji*, Niš: Ekonomski fakultet.
- Stefanović, Z. (2009) *Institucionalistički pravac ekonomske misli*, Beograd: Zadužbina Andrejević.
- Stefanović, Z. (2012) *Politička ekonomija globalizacije: modeli kapitalizma i institucionalna evolucija*, Niš: Ekonomski fakultet.
- Stefanović, Z. and B. Mitrović, (2006) "Teorijski razvoj koncepta institucionalne evolucije u ekonomiji", *Ekonomika*, 5-6: 47-57.
- Streeck, W. and K. Thelen (2005) "Introduction", in: Streeck, W. and K. Thelen (eds.) *Beyond Continuity: Institutional Change in Advanced Political Economies*, Oxford: Oxford University Press, pp. 1-40.
- Stubbs R. and G Underhill (eds.) (2006) *Political Economy and the Changing Global Order*, New York: Oxford University Press.
- Thelen, K. (2010) "Economic Regulation and Social Solidarity: Conceptual and Analytic Innovations In The Study Of Advanced Capitalism", *Socio-Economic Review* 8(1): 187-207

## EVOLUCIJA „PRAVILA IGRE“, MAKROEKONOMSKA DINAMIKA I REFORMSKA POLITIKA

**Apstrakt:** Uticaj institucionalnih aranžmana, „pravila igre“ u Nortovom smislu, na makroekonomsku dinamiku uveliko je detektovan u privredno-istorijskoj evidenciji. Međutim, razjašnjenje prirode institucionalnih tokova i njihove veze sa putanjama privrednog rasta predstavlja izazov za savremenu ekonomsku teoriju. U radu će biti učinjen osvrt na konceptualizaciju institucionalnih promena, kao procesa koji oponaša evolucione sisteme, uz oslonac na relevantna teorijska shvatanja i selektivnu empirijsku građu koja je u njima sadržana. U tom smislu, rad prezentuje važnije doprinose promišljanju odnosa između institucija i privrednog rasta, evolucionu teoriju društveno-ekonomskih promena i njihove moguće implikacije na aktuelne reformske procese. Ukupna u radu ponuđena argumentacija ukazuje na stabilnost i inertnost institucionalnih struktura, čija je dinamika trajektorijski zavisna. Pozivanje na univerzalna reformska rešenja, neutralna u odnosu na domaće okolnosti, u procesu stimulanja privrednog rasta, pokazuje se kao nedelotvorno.

**Ključne reči:** institucije, privredni rast, evolucija, liberalizacija, ekonomske reforme.