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Governmental Learning as a Determinant of Economic Growth

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of Economic Growth**

Marina Gruševaja

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Governmental Learning as a Determinant of Economic Growth*

Abstract

Systemic economic transition is a process of determined radical institutional change, a process of building new institutions required by a market economy. Nowadays, the experience of transition countries with the implementation of new institutions could be reviewed as a method of economic development that despite similar singular steps has different effects on the domestic economic performance. The process of institutional change towards a market economy is determined by political will, thus the government plays an important role in carrying out the economic reforms. Among the variety of outcomes and effects the attention is drawn especially to economic growth that diverges significantly in different post-transition countries. The paper attempts to shed light upon the problem on the basis of institutional economics, of economics of innovation and partially of political economy of growth using an evolutionary, process-oriented perspective. In this context the issue central to the promotion of economic growth is the successful implementation of new institutions through governmental activities. The paper shows that under the conditions of bounded rationality and radical uncertainty economic growth is determined, *inter alia*, by the capacity for governmental learning.

Keywords: economic transition, institutional change, governmental learning, economic growth

JEL classification: B52, D80, O43

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***Governmental Learning* als eine Determinante des wirtschaftlichen Wachstums**

Zusammenfassung

Wirtschaftlicher Systemübergang ist ein Prozess des determinierten radikalen institutionellen Wandels, ein Prozess der Transformation institutioneller Rahmenbedingungen in Richtung Marktwirtschaft. Aus heutiger Perspektive kann die Erfahrung der Transformationsländer mit der umfassenden Veränderung des institutionellen Rahmens als eine Methode der wirtschaftlichen Entwicklung gewertet und analysiert werden. Trotz ähnlicher Vorgehensweise sind das institutionelle Ergebnis und seine Auswirkungen auf die Wirtschaftsleistung in den Post-Transformationsländern sehr unterschiedlich. Institutioneller Systemwandel hin zu einer Marktwirtschaft wird durch den politischen Willen bestimmt. Damit spielt die Regierung bei der Wahl und der Durchführung von institutionellen Wirtschaftsreformen eine wichtige Rolle. Ohne auf die Vielzahl von partialen Ergebnissen dieser Reformen einzugehen, untersucht das Diskussionspapier die Auswirkungen des staatlichen Handelns auf das Wirtschaftswachstum, das in verschiedenen Post-Transformationsländern sehr stark divergiert. Die zentralen Fragen sind dabei, wie der umfassende institutionelle Wandel durch die staatlichen Aktivitäten beeinflusst wird und ob und wie innovative institutionelle Lösungen zustande kommen können. Die Fragestellung wird auf der Grundlage der Institutionenökonomik, der Innovationsökonomik und der politischen Ökonomie des Wachstums angegangen und aus einer evolutionären, prozessorientierten Perspektive am Beispiel der Länder China und Russland beleuchtet. Der Diskussionsbeitrag zeigt, dass unter den Bedingungen begrenzter Rationalität und radikaler Unsicherheit das wirtschaftliche Wachstum, *inter alia*, von dem Ausmaß und der Realisierbarkeit von *Governmental Learning* bestimmt ist.

Schlagworte: ökonomische Transformation, institutioneller Wandel, *Governmental Learning*, Wirtschaftswachstum

JEL-Klassifikation: B52, D80, O43

Introduction

In the recent economic literature, two different issues have been actively discussed: the relationship between governance and economic growth, on one hand, and a more process-oriented view on the impact of governmental learning on economic performance, on the other hand. The second issue has already been investigated for developed countries in a case study of Dutch technology policy (Groenewegen/van der Steen, 2007). However, this issue is particularly intriguing regarding its application to the problems of economic transition and transformation, and more generally to development economics. Economic transition is a radical form of institutional change with multiple and parallel change processes in all spheres of social and economic life. The political actors, responsible for setting up the effective future framework for economic activities, are constrained to decide under conditions of extreme complexity, bounded rationality (Simon, 1957) and radical uncertainty (Knight, 1921). The capacity for governmental learning becomes one of the determinants of economic performance.

The main focus of this paper is the radical deliberate institutional change such as economic transition and the role of governmental learning in the promotion of economic growth by setting up the institutional framework for economic activities. First, the paper explains what the institutions are, how they are connected to each other and how their change is explained in the economic theory. Then, the paper gives an overview of the significance of institutions for economic growth admitted to them by different theoretical approaches and the conclusions drawn for economic transition. Any radical deliberate institutional change carries the problem of possible inconsistency between institutional innovations and the given institutional environment, which can impede economic performance. To avoid or to resolve this problem, the capacity for effective governmental learning becomes a crucial issue. Based on historical evidence of the economic transition in China and Russia, the paper compares proceedings for implementing institutions and conducting economic reforms in Russia and China in the first years of transition. Further, it identifies governmental learning as one of the factors that determined high economic growth during the transition process in China. The paper also analyzes the impact of the reforms conducted and institutions set up on the economic performance in Russia to give one of the possible new explanations to the strong decline in growth in Russia.

Institutions and Institutional change: a brief survey

In economics the term institution could be used to define a rule of the game, habitual behavior or an organization. In the following the term is used in its broad sense. Hence, institutions are sets of rules that reduce uncertainty by restricting and canalizing the behavior of economic actors “or, more formally, are the humanly devised constraints that shape human interaction” (North, 1990: 3). Further institutions can be distinguished as formal (law, regulations) or informal (social norms, traditions, habits), and institutional arrangements (contracts between economic agents) (Davis/North, 1971: 5-6). The legal or any different governmental control system bears responsibility for reinforcing the formal institutions and institutional arrangement. Thus, the quality of the control system is crucial for their effectiveness. Instead, informal institutions have passed the test of historical evolution and also determine an individual’s behavior as well as that of organizations in pursuit of their aims. Informal institutions represent the cultural heritage of a community, and result from the dynamic evolution of a society. Furthermore, these rules are self-reinforcing through mechanisms such as imitations, traditions and other forms of teaching. Fears of not being accepted in a community or even being excluded from it facilitate the self-reinforcing process (Tridico, 2004: 4-6). Institutional arrangements are the result of common action where the demand for rules is not covered by formal institutions. Institutional arrangements can be reinforced by social actors or by the governmental control system. Formal and informal institutions as well as institutional arrangements are the result of “shared mental models,” and together they create the institutional environment in which economic activities are conducted.

The institutional environment is not exogenously defined and unchangeable. It has a social nature so the environment changes, sometimes slowly or, under certain conditions, very quickly (revolution). As mentioned above, the aim of institutions is the reduction of uncertainty that arises by planning and conducting economic activities. A frequent or a fast change of institutional rules causes instability and uncertainty in relations of economic (and political) actors, so that institutions need to show a grade of stability and persistence. A certain resistance to change is, therefore, characteristic of the institutional environment. Nevertheless, institutional change is an inherent part of social development.

In its progress institutional change can follow as a consequence of social evolution or technological change or occur deliberately due to the strategic decisions of policymakers. Radical changes in the institutional environment such as economic transitions are imposed by political decisions. Thus, political actors play a crucial role in designing, implementing, adapting and enforcing new institutions which are institutional innovations to the existing institutional environment. However, political actors, as all humans, possess limited cognitive capacity and are not omniscient. Given the fact of dispersed knowledge as well as individual cognitive and procedural limitation by handling of in-

formation, political decisions are made under radical uncertainty¹ and bounded rationality². Thus, their consequences can only be judged *ex post*. The standard Hayekian discovery process becomes a part of institutional change: by trying out the viability of different institutional innovations whose effects cannot be judged in advance, political actors create/acquire knowledge by the method of trial and error and influence the performance of the economic system (Hayek, 1945). Hence, governmental learning plays an important role in the analysis of institutional change.

Before focusing on governmental learning as a determinant of economic growth, the paper draws upon existing theoretical approaches to explain how institutions are connected to economic performance.

The Impact of Institutions on Growth in Economic Theory

The core attempt of economic analysis was and remains the search for solutions to the problem of resources scarcity that promote economic growth and, hence, enhance welfare. While a consensus exists among economists that “institutions matter,” the role of institutions, however, differs significantly in economic analysis. In some of the traditional theoretical approaches, the institutional environment is seen to be only the framework for economic activities, and influence of institutions on economic performance is rather ignored or not considered. Modern mainstream theoretical approaches accept the importance of a certain set of institutions that enable and support the functionality of free markets and thus contribute to a better economic performance. Recently, institutionalists’ views, old and new, have gained in importance in economic debates. Here is a short overview of the different theoretical considerations regarding institutions and economic growth as well as conclusions for the transition process as a radical institutional change.

¹ Radical uncertainty in *Knightian* sense of the word means the case where the probability is incalculable. This is the case when one is relying on many other actors with private knowledge and private motives. A single subjective probability has a very small degree of being correct in any individual case as one possesses only the general knowledge of possible motives and their outcomes. Multiplied by millions of participants the probability becomes uselessly small. *North* points out that uncertainty “has been the underlying condition responsible for the evolving structure of human organization throughout history and pre-history” (2005: 14).

² Bounded rationality is the term which has been introduced to economic science by *Simon* (1957) in his work *Model of Man*. There he states that “boundedly rational agents experience limits in formulating and solving complex problems and in processing (receiving, storing, retrieving, transmitting) information, they otherwise remain “intendedly rational”” (*Williamson*, 1981: 553, citing *Simon*).

The traditional mainstream economic literature is based on *neoclassical economics* and focuses on the calculation of the equilibrium. This approach assumes the existence of an efficient institutional structure including formal and informal institutions as well as institutional arrangements. The structure built the framework for market activities directed toward efficient allocation and are not considered in the economic analysis. In *neoclassical theory* with perfect information, the allocation is price-guided. The simple *neoclassical quotation* – the *Solow growth model* – states that economic growth measured in per-capita product is a simple function of effective capital and labor (Romer, 1996). And as a framework, only institutions significant to market activity such as property rights and financial institutions need to be set up as they enable economic activities. Thus, the standard *neoclassical theory* based approaches to economic transition proposed a radical change (*Big-Bang*) through the fast establishment of an indicated set of new rules and counts on the market forces in the further development of the market economy.

Over the past few decades, the comparative experience with the progress of transition and with its different impact on economic growth in the former centrally planned economies revealed the shortages of the standard *neoclassical growth models*. Hence, the institutional string of economics, e.g. *Austrian school*, *Old Institutional economics (OIE)*, that evolved in the first half of the 20th century have lead to more consequent consideration of institutions in mainstream economics and to a new theoretical institutional approach, *New Institutional economics (NIE)*.

The *Austrian school (ordoliberalism)* places the main theoretical focus on institutions, institutional arrangements and organizations. On the one hand, this approach in its broad conception underlines the necessity of basic principles to implement an economic order (Goldschmidt/Berndt, 2003: 12). The requirements of *the ordoliberal* concerning the planning of institutions are high. First, they demand the rule of law and the precept of conformity to the institutional framework. This means that all relevant institutions in the economy must satisfy this precept. Second, *the ordoliberal* considers not only isolated laws but also the interaction of these elements in the system of laws. This system needs to be governed by a set of principles, which all together should take care of a human order. Eucken (1990), in his “Principals of Economic Policy,” defined two groups of principles: structuring principles and regulating principles. These principles must guarantee the workability of the whole set of rules. On the one hand, the principles must respond to the characteristics of the processes in the market and in the political-administrative machine. On the other hand, the principles have to reflect what we understand by a humane society (Grossekettler, 1994: 14-15).

The core of *old institutional economics* builds a concept of economic behavior that shapes and explains institutions. The representatives of this school reject the core assumptions made by *neoclassical economics* regarding individuals and their behavior – the concept of methodological individualism as well as the concept of rational behavior, which is directed toward the maximization of individual utility. Therefore, *OIE* emphasizes the role of habits, behavioral and social rules, as the basis of human action. According to *OIE*'s concept, institutions represent a set of rules that allows enterprises and consumers, respectively, to “satisfy” and not “maximize” their own return and utility. Moreover, institutions are not necessarily created to be socially and economically efficient but to serve and to preserve the interests of some social groups and to create new rules. Therefore, as long as the institutions are committed to their original aims, the institutions are considered to be effective.

Further, imitation and emulation of behaviors lead to the reinforcement of institutional innovations. An institution, on its part, standardizes behaviors and helps to transmit rules to new social actors. Institutions, in that way, summarize individual actions to a collective action. These collective actions are regulated and controlled by governmental activities, laws, social customs, organizations and individual behavior in terms of bargaining, negotiating, transacting, etc. Therefore, collective action determines directly and indirectly all economic activities and relations of individuals (Chamberlain, 1963: 75). The capacity for collective action and the quality of institutional environment determine the overall economic performance.

In the recent times, *New Institutional Economics (NIE)* – still based on *neoclassical theory* – has increasingly used the instruments of traditional economic analysis to further improve the quality of institutions as they become more important for economic performance. Some representatives such as *Libecap* claim that “the new institutional economics retains its general attachment to neoclassical economics with its emphasis on individual maximization and marginal analysis, but with attention to transaction costs, information problems, and bounded rationality” (Libecap, 1998). *North* introduces the concept of transaction costs to *institutional economics* and considers institutions that minimize transaction costs efficient. To him, the most important role of institutions is that of reducing uncertainty in order to determine a steady framework of economic activities. Nevertheless, *North* is close to *Old institutionalism* in his theoretical approach as he states that institutions should not be necessarily efficient – “[i]nstitutions are not necessarily or even usually created to be socially efficient; rather they, or at least the formal rules, are created to serve the interests of those with bargaining power to devise new rules” (North, 1990: 16). He also highlights the vital role of power clusters and lobbies in institutional agreements. Their activities, on one hand, influence the direction of institutional change (Public Choice) and, on the other hand, increase or decrease the institutional efficiency.

Building a bridge between *Old* and *New Institutional Economics*, North states that imperfect information, bounded rationality and different types of market asymmetries cause a rise in transaction costs. The purpose of institutions in this imperfect economic world is to reduce uncertainty and give more stability to economic relations. Transaction costs can make up a big part of the total cost of production and derive from exchanging, protecting and enforcing property rights as well as acquiring information. As in *neoclassical theory*, institutions can be set up in a short period of time; however, the extent of the transaction costs would determine institution's and thus domestic economic efficiency.

Hence, in the more recent mainstream economic literature, institutions have moved to the core of the debate regarding economic growth. The most thorough analysis of the importance of institutions in the process of economic growth was presented by Rodrik (2000). He takes into consideration a broader range of institutions and underlines their role in better economic performance: property rights, regulatory institutions, institutions of macroeconomic stabilization, institutions for social insurance and institutions of conflict management. Rodrik pointed out that, despite some diversity among different countries in terms of economic performance and the structure and the efficiency of institutions, higher rates of economic growth are positively correlated with the higher quality of institutions. According Rodrik among all institutions, of the greatest significance are property rights, regulatory institutions and institutions in macroeconomic stabilization. He also analyzed the role of political regimes in determining economic growth and found that only in long run a democracy contribute stronger to growth than other political regimes. Crucial for a well-functioning economy is instead the efficient mix of state and market, intervention and laissez-faire. Thus, in this concept a successful economic transition that ensures sustainable growth is determined by the efficient activities of both the market and the government. To wit, from dynamic perspective both have to be capable to produce new effective and efficient solutions to existing problems and to transpose them successfully.

While the conditions for the process of generating and imposing of new solutions for the market has been broadly examined by economists, the analog process and its driving factors in developing of suitable economic policies by the government has recently moved into the focus of economic interest. Before moving to the concept of governmental learning, below we shed light on the crucial factors of the deliberate institutional change, such as institutional innovation and political entrepreneurship as well as on the phenomenon of institutional incongruity.

Institutional innovation, political entrepreneurship and institutional incongruity

To explain institutional innovation and political entrepreneurship³ a parallel could be drawn to Schumpeter's innovator (1911). Schumpeter emphasized the role of the entrepreneur in the creative process of economic development and was explicit about his economic function. The entrepreneur distorts the prevailing equilibrium by introducing innovations to the market. He challenges existing structures and, thus, sets economic development into motion. Schumpeter divided this process into three stages: invention, innovation and imitation. Inventor develops new ideas, products or processes, while the innovative entrepreneur moves the economy forward from static equilibrium through commercialization of invention. "Economic leadership in particular must hence be distinguished from 'invention'. As long as they are not carried into practice, inventions are economically irrelevant." (Schumpeter, 1991: 88-89) The final step in this three-stage process is imitation. It concerns the more general adoption and diffusion of new products or processes that passed the market selection test. To sum up, the entrepreneur plays an important role in resolving the problem of the utilization and the spread of knowledge which was pointed in his works by Hayek (1937).⁴

In analogy to economic entrepreneur who is seen as an engine of economic development, political entrepreneurs proactively push for new institutions. Carrying into practice institutional innovations implies adaptation of the original institutional ideas to specific conditions of existing institutional environment. Political entrepreneurs are bounded in their rationality and act under conditions of radical uncertainty, as defined by Knight (1921), since institutional environment is complex and political agents are not omniscient. However, they undertake actions in attempt to leverage resources to transform existing institutions or to create new ones (e.g. Metcalf, 1995; Wohlgemut, 2000; Witt, 2003).

In practice, political actors pursue an economic policy that forms and transforms an integrated whole. The establishment of institutional innovations must be examined by conformity with the existing institutional framework. Thus policy making influences and in the same time co-evolves with technological, cultural and institutional

³ In the recent literature there could be found different terms and definitions for institutional innovators and their role in institutional change. *Van der Steen and Groenewegen* (2009) distinguish between political, institutional and policy entrepreneurship. Others use rather the term institutional entrepreneurship (e.g. *DeMaggio*, 1988; *Beckert*, 1999; *Dorado*, 2005) or political entrepreneurship (*Hederer*, 2007). This paper uses the term introduced by *Dahl* (1961). To wit, political entrepreneurs are "individuals who recombine resources in the policy arena to bring about change" (*Henrekson and Sanandaji*, 2010, citing Dahl).

⁴ *Hayek* (1937) stressed the importance of the use of knowledge as a main vehicle of the economic process.

processes.⁵ To avoid lock-ins and unfavorable institutional outcome there is a need for a selection mechanism. In markets, competition is the primary selection mechanism, because only an environment of competition allows economic actors to optimally unfold their creativity and helps to coordinate it in voluntary decisions. Then, functioning competition promotes efficient allocation and, hence, better economic performance. There is a similar mechanism for institutional innovations. Political entrepreneurship creates opportunity for political actors to maximize their personal utility. Re-election or continuous maintenance of power – provided by better living standards of population – could be seen as incentives to implement institutional innovations. However, the valuation of new institutions is a more difficult task. As the institutional innovations are implemented with the deliberate intention by political entrepreneurs the issue of institutional incongruity emerges. The pure implementation of institutional innovations does not ensure their functioning, which can be evaluated in terms of the effectiveness and efficiency of the institution (Gruševaja, 2006).

If de facto rules correspond to de jure rules, then an institution is assumed to be effective. Formal institutional innovations implemented by governmental activities, which are not supported by existing informal institutions, would hardly be accepted, and finally do not correspond to the original aims. In other words, such institutional innovations are not effective because of the institutional incongruity. Through the inconsistencies of formal and informal institutions, institutional change slows down in its development. Discrepancies between the quick realization of new formal rules and the gradual path-dependent development of informal rules such as traditions and norms of conduct create conflicts between these institutions. Therefore, the result of a rapid or an extreme institutional change becomes hardly predictable.

Institutional efficiency is high if the costs of realization, enforcement and control of institutions are minimized. However, an inconsistency between formal and informal rules would cause high transaction costs. These manifest themselves in such activities as lobbying, the formation of power clusters, increasing corruption, wasting of time and financial expenditures to reduce uncertainty. The bigger the discrepancies in the institutional development, the higher are the transaction costs and their negative influence on economic performance. Thus, the inconsistency of the institutional environment inhibits economic growth. As formal institutions are set up by the government, then governmental learning becomes important as a means of reducing institutional inconsistency.

⁵ Such an approach provides insights into path dependencies and irreversibility.

The role of government and governmental learning

In mainstream economics, government intervention is needed only in the case of market failure (such as collective goods, externalities and natural monopolies) or for macroeconomic regulations (such as financial and fiscal systems, employment etc.). Institutional economics goes a step further. It argues that governmental activities should be extended to the creation of a stable institutional environment, including clearly defined property rights, competition and industrial policy as well as transparent information structure (Williamson, North). In addition, the government is obligated to create markets where they do not emerge because of high sunk costs or transaction costs (costs of information, negotiation, contract enforcement and the like). Political actors have the privilege of creating or changing formal institutions and enforcing them in order to direct the behavior of private actors toward the desired outcome (higher economic efficiency, better economic performance). However, new institutionalists would recommend carefully, sparing intervention in market activities as the costs of government failure might be higher due to principal-agent problems than the benefits from the correction of markets that failed (Jensen, 1983).

The evolutionary approach to institutions as the further development of OIE would agree on the problems caused by information asymmetries, however, from a different perspective. Governments, evolutionary institutionalists would argue, are not only bounded in rationality; the actors also face radical uncertainty (Hodgson, 1999). Moreover, the processes of cultural, social, technological and economic development are ongoing and interrelated. Thus, rationality is contingent and procedural. Individual behavior is directed toward needs satisfaction instead of outcome maximization. There is no aimed equilibrium, so the government does not correct the failure of the markets but rather guides and facilitates institutional and economic processes in socially desirable directions. "Such a government is also aware of possibilities of the necessity to explore and to learn, and of the necessity to create opportunities" (Groenewegen/van der Steen, 2007: 352). Taking into account the assumption of the bounded rationality and of the radical uncertainty of a situation in which political actors make their decisions, the government should be a learning actor. Knowledge, experience and learning become important elements in decision-making. Institutionalists representing this approach conclude that the state should "foster learning, enhance human capabilities, systematically incorporate growing knowledge and adapt to changing circumstances" (Hodgson, 1999). Others add that the government should allow for experimentation (Hodgson, 1999: 248, 262; Groenewegen/Kunneke, 2005) and create variety (Matcalfe, 1995).

As a model “governmental learning” consists of human action and opportunity discovery (political entrepreneurship), learning, revision of plans and error elimination. Based on this picture, three types of governmental learning are distinguished by Groenewegen/van der Steen (2007): 1) “normal” policy learning, 2) re-description and “direct” Learning, as well as 3) innovative policy learning.

- 1) "Normal" policy learning (Denzau/North, 1994) is allowed under a condition of stability for governments in developed industrial countries with a well-defined framework, within a consistent institutional environment where shared mental maps of the involved actors are clear and stable and congruent with formal institutions and institutional arrangements. The relationships between the government and other actors are based on trust and continuous interactions between them. The learning process is directed toward improvements in the existing framework through incremental changes. “Imitation, experimentation, and trial and error are all possible within the existing policy trajectory, but without disturbing its basic features; in other words, a novelty is absorbed and molded so it fits well in the system and can contribute to further perfection” (Groenewegen/van der Steen, 2007: 356).
- 2) With re-description and "direct" learning, the government can "re-describe" the institutional foundation as discussed in North's (2005) work. New mental maps and new ways of thinking facilitate the process directed toward a new institutional environment through institutional innovations. A necessary condition is economic or/and political pressure to radically change the institutional framework. The trigger of the process would be a crisis or a strategic decision during steady development. The outcome depends strongly on the will to invest in the new “logic” showed by political and institutional entrepreneurs as well as their capacity for “collective action.” In addition, structural changes should avoid strong institutional inconsistencies through a careful balanced implementation of institutional innovations and mutual change/adaptation of shared mental maps (Nooteboom, 2000). In terms of informal institutions, the clear demonstration and communication of the benefits the change brings to actors help facilitate a smooth adaptation.
- 3) The third type of learning – innovative policy learning – takes place within a flexible institutional framework that is open to innovation and aims to produce institutional variety. The policymaker is rather more of a creative political entrepreneur than a technocrat and possesses particular knowledge and learning capability. This type of learning requires a special type of government that is innovative and willing to learn actively within its own structure and with other actors. Such a government should, on one hand, create a stimulus for experiments outside existing structures and, on the other hand, develop “‘neutral’ selection mechanisms to avoid lock-ins and the dominance of interest groups” (Groenewegen/van der Steen, 2007: 357).

The transition process from planned to market economy as a radical determined change in an institutional environment implies opportunities only for the two last types of governmental learning. In this context the institutional innovation through political entrepreneurship – implemented by technocrat or creative political entrepreneur – becomes a driving mechanism of the comprehensive deliberate institutional change.

To illustrate the significant impact of governmental learning on the consistency of institutional change and hence on economic performance, the transition processes in China and Russia are very briefly surveyed.

The transition process in China

The Chinese transition process started after the great economic experiment by Mao Zedong, the Great Leap Forward (1958-1960), and the ensuing radical political movement, the Cultural Revolution (1967-1976), brought starvation, violence and economic disaster to the country. Both experiments aimed at establishing a new socio-economic and political system close to a socialist regime by deinstalling the institution of the family by imposing a communal property rights system, and both failed completely. The economic disaster forced the ruling party to learn from this experience and initiated changes in policies. The transition process in China started in 1978 with the announcement of a new program for economic development under the slogan of a “Chinese-style socialist market system” (Yu, 2007: 8-11) that included the following: 1) a move from the collectivized agricultural system to a more anatomic system (private peasant plots); 2) the reduction of centralized economic planning, passing responsibility for acquisition of input and output products and materials to local economic units; 3) encouragement of technological development; and 4) the creation of experimental zones for joint ventures with the aim of attracting foreign capital for economic modernization. The transition process was characterized by gradual learning and experimentation in the different areas of economic life. The most significant experiments at that time were the agricultural responsibility system, the creation of specific economic zones and, beginning in 1983, the “dual track” pricing system in state-owned industries (Yu, 2007: 8-11; Raiser, 1994: 2-7).

The household responsibility system (HRS) in agriculture was introduced in 1978 when the land was still owned communally. The new system permitted households to lease land on a contractual basis for a certain period of time. In 1988, the right to transfer usufruct land was introduced, which could be considered a derivative of property rights (Bell/Kochhar, 1992). The core of the new system was the permission to dispose freely of residual output after households had made their contributions to the communities’ supply quota and deducted collective services and agricultural taxes. This reform brought “dramatic improvements in agricultural productivity and rising real incomes in rural areas led to a surge in output of township and village enterprises (TVEs)” (Raiser, 1994: 2).

The creation of four specific economic zones (SEZs) in Guangdong and Fujian provinces was aimed to increase autonomy in various state-owned organizations on a selective basis as well as to attract foreign capital for modernization (Hussain, 1990). Those experimental zones were designed to tackle uncertainty in a sensible way. Due to the economic disaster caused by the Great Leap Forward, the government tried to confine economic experiments to a small region to avoid failure spreading to the entire nation. If the experiment was successful, the experience could be applied to other regions. The strategy proved to be appropriate as, at the first stage of the experiment, the outcome did not seem promising. The original goals, such as an increase in export production, have not been fulfilled. Foreign investors spent their money building factories to take advantage of the large supply of cheap labor and to produce goods for the huge Chinese market rather than for exports. In addition, the impact of foreign direct investments on the modernization of the Chinese economy was quite low as “foreigners were unwilling to invest their money in expensive high-tech capital that a largely unskilled labor force might not be able to use” (Yu, 2007: 12). It took decision-makers almost 20 years of trial and error – making changes in the tax structure, correcting measures for controlling corruption, investing in education and workers to create a skilled workforce – to make this economic experiment successful.

The last of the three most significant economic experiments was the introduction of the “dual track” pricing system for state-owned enterprises (SOE) in 1983. The central government set the plan for a nominal quota for fixed price deliveries while regional governments issued price guidelines for transactions with state purchasing agencies. The residual output could be sold on the free market. Later on, direct (profit) and indirect (turnover) taxation replaced profit transfer from SOEs to the central government. Since 1986, the contract responsibility system (CRS) has permitted enterprises to negotiate fixed supply quotas and tax obligations. Additional earnings could be retained. Further reforms in the industrial sector, for example, increased autonomy in the financing of investment given to SOEs, have boosted the development of China’s capital market and financial sector (Raiser, 1994: 4).

To sum up, the government reformed the Chinese economy on the mainland without following any model but by an incremental process of trial and error. This gradual approach to transforming the economy had one significant advantage. Chinese citizens could partially retain their old shared mental models while slowly transforming them through learning new ways of doing. The new policies introduced step-by-step in different segments of the economy served as small impulses to the people’s thinking and doing. In this way, a new framework evolved as a result of the learning processes, including experiments, failed plans, corrections, adjustments and innovations. Starting with successful reforms in the rural sector, similar reforms were expanded to the industrial sector and later to the financial sector (Cheung, 1998). The government and Chinese citizens, even the most conservative, participated in this process, slowly giving up communist ideology and becoming involved in market processes. “A new social stock

of knowledge has been steadily built up as these activities are extended to the whole economy” (Yu, 2007: 11). The Chinese transition approach, which included steady governmental learning, avoided big inconsistencies between formal and informal institutions, and the economic performance of the Chinese economy remained high over the entire transition period.

Transition process in Russia

As the process of transition in Russia began at the end of 1989, there were as in China no elaborated theories about what had to be done to accomplish the transition process successfully with a free market economy established. Two strategies were discussed and then applied consecutively by leading economists. The first, the ordoliberal approach (*Austrian school*), focused on the key institutional principles of a free market economy and recommended a gradual simultaneous creation of an institutional framework in the first place. The second, based on *Neoclassical theory*, proposed a radical change process (known as the “Big-Bang” transition strategy) involving the immediate destruction of old institutions and a rapid conversion to free market arrangements. In particular, the ordoliberal approach propounded already in the 1989 reforms with an emphasis on the setting up of an institutional framework of the free market economy, however without giving any advice about the sequence of reforms. The result was a collapse of production structures and a decline in the social product. Thus, in the early 1990s, most leading economists in their advisory capacities assumed that a speedy change of the system from a centrally managed economy to a free market economy would be possible and would be a better transition strategy. Therefore, they tried to speed up the transition through the introduction of institutions most significant (in their opinion) to the free market economy, such as a financial system, private property etc. In hindsight, the method did not prove to be very successful either as Russia’s market economy is still very vulnerable to external shocks. On a deeper analysis, it is evident that both of the transition approaches focused on a static institutional result and answered the question which institutions need to be implemented. However, the question is who and how to design and establish institutions that can fulfill the aims. At this point, governmental learning as a dynamic process becomes one of the most significant determinants of the economic development and economic performance of a country.

Russia, which followed the same method of transition as other formerly socialistic countries of Central and Eastern Europe, had more difficulties finding an appropriate transition strategy. The inconsistency between rapidly introduced new formal and existing informal institutions was here essentially stronger manifested than in the other countries of the Eastern bloc. The more than 60 years of socialist regime have very strongly influenced the country and the social actors. The absence of a legal culture (rule of law) and therefore the lack of familiarity with the new rules recommended by foreign experts immensely increased individual uncertainty and intensified the inconsistency of the in-

stitutional development, since the old “shared mental maps” were incompatible with the new formal institutions. Therefore, the adaptation process was impeded considerably. The political actors acted under conditions of radical uncertainty, bounded rationality and immense pressure from inside and outside the country to bring rapid changes under way. The political actors were not able – cognitively and organizationally – to experiment, to develop alternatives, to correct failed plans step-by-step. Pace and complexity of the transition overloaded the learning capacity of the decision-makers and made a clear transition strategy impractical, which led to the economic chaos and strong decline in growth in the first years of the transition.

Governmental learning and transaction costs

The fast pace of transition, an ineffective and inflexible economic structure, unfamiliar new governance principles – for all these reasons, the political actors in Russia faced challenges and cognitive overload, which in general negatively affect the learning process. Governmental learning was impeded by the different strategy suggestions of leading experts, on one hand, and the loss of trust by the population, on the other hand. The decision-makers acted within political and economic disorder. The political economy explains the behavior of the political actors as guided by their personal goals and influenced by interest groups or so-called vested interests (Downs, 1957; Olson, 1965). Thus, the direction and quality of institutional change depend on what kind of influence is more prevalent in the society. The economic transition process, which is generally characterized by the radical uncertainty and bounded rationality of social actors, put high challenges on the actors involved in decision-making. Institutional change conducted overnight does not produce an institutional tabula rasa and cannot be considered a process of “creative destruction” if informal institutions, including shared mental maps, continue to influence the decision-making process and produce, through inconsistencies between new formal and old informal institutions, high transaction costs.⁶

The first reason for high transaction costs is explained by the *theory of public choice*. Every development of new rules in a community will always be influenced by the old

⁶ Strong inconsistency in the institutional development leads to problems of the acceptance and, thus, of the enforcement of the new formal rules. With a rise of inconsistency grow also transaction costs (i.e. costs of information, learning, enforcement and not at least costs of control). As pointed by *Pistor et al.* (2000), an important role plays familiarity with new rules in the society. The familiarity with the new implemented rules could be expected in cases, if a country in its recent history was already confronted with institutions of the same legal family or with a similar set of rules. Here, the so-called “cultural border” could play a central role. *Berkowitz et al.* (2003) also confirms that the effectiveness of the newly enforced institutions in a country is higher, if it was once in its history familiar with basic principles of such institutions. In such case, the social actors can better understand the means of the rules and, therefore, to make better use of them. This explains the reason for the lower institutional incongruity in the countries of Middle and Eastern Europe than in Russia.

rules of conduct and by the social groups profiting off these rules. Thus, it is almost inevitable that through the change the underprivileged would benefit, and therefore, the change-rejecting groups would try to protect their interests through the formation of lobbying groups and rent-seeking behavior. Change-rejecting individuals are willing to pay more in order to maintain the old framework. They could build a representative lobby or a political party to secure the advantages of their particular positions. The different institutions (the old ones and the new ones) will not only coexist but also compete with each other (Streit/Mummert, 1996: 14-18). If the adaptation of formal and informal institutions to each other could succeed within the development processes, then the rules' disconformities might be reduced. Therefore, a more consistent institutional environment lowers transaction costs and positively affects economic performance by encouraging economic entrepreneurship through the stabilization of expectations.

The second reason for high transaction costs is explained by the radical uncertainty that accompanies the process of transition as fast deliberated institutional change. With strong discrepancies between old and new rules, uncertainty as well as the costs to reduce it would expand (North, 1990: 30). In countries such as China, where the change in formal institutions occurs in better agreement with the development of informal institutions, transaction costs were lower, and the acceptance of changes by individuals was higher (Streit/Mummert, 1996: 6). Therefore, the economic performance has also been positively influenced. If such an agreement is attainable by political/economic means, then the transition will precede more smoothly, without strong internal shocks as social and economic disorder. However, the biggest problem is that informal institutions and especially "shared mental maps" are only slowly moldable. North stated that "informal constraints, unlike formal rules cannot be changed overnight" (1992: 12).

Overall, high transaction costs negatively influence economic performance. Frequent changes in plans and strategies also increase uncertainty and are costly. Failed strategies applied to the entire economy cause economic disorientation. Error elimination becomes a difficult task as there are always groups or individuals involved that benefit from certain reforms and hence are reluctant to accept corrections. Without clear strategic orientations, with a lack of public control and through cognitive overload, decision-makers tend toward rent-seeking behavior as personal goals are well defined. All of these components – high transaction costs caused by inconsistency in institutional change, error elimination in large dimensions, rent-seeking behavior – impede or reduce economic performance.

Why was governmental learning possible in China and not in Russia?

The differences in the progress of the transition process of the two countries and the impact of reforms on the economic performance are obvious. The intriguing question is why governmental learning was possible and succeeded in China and failed in Russia.

The first reason involves the different initial economic and political conditions in the respective countries. Before the first reforms were introduced, China revealed high rates of economic growth while Russia was mired in stagnation. In China, single political actors have fallen into disrepute though the political system as whole did not discredit itself for the broad population. Thus, trust in the governance principles of the system and the capability of the new political leaders to make appropriate decisions was sustained. In Russia, indeed economic and political systems were both tremendously decried. Trust in the correct political choice or decision-making was eroded. Rapid changes were, on one hand, desperately required, and on the other hand, the population considered the moves toward a capitalist method of doing suspect as it was contrary to the prevailing ideology or basically unknown. Under such circumstances, governmental learning was impeded by mistrust.

The second reason concerns the informal institutional environment. “Shared mental maps” or informal institutions were used in China to support reforms that introduced incremental change in accordance with the process of the transition whereas in Russia informal institutions were shown to be incongruent with the new capitalist way of doing and thinking. Following the recommendations of foreign advisers without a steady adaptation of the “shared mental maps” increased the inconsistency of institutional development and thus the transaction costs of the transition process. Public policymakers were constantly engaged in solving problems without an appropriate stock of knowledge. In China, they could unlearn and learn through gradual experimentation and error elimination, slowly changing the way of thinking. In Russia, the decision-makers were overwhelmed with the novelty and huge range of ill-specified problems that the decision-makers tried to solve by relying on their own old stock of knowledge or foreign experts. Under such conditions, the learning process is less effective because, due to interdependencies in the economy, the outcomes of an experiment or an institutional innovation are less observable and clearly confined.

The third reason is the pace of transition. Gradual changes are incremental and correspond to the human cognitive ability to acquire and to convert information. Any learning process requires time to develop innovations, to experiment, to adapt or to change previous plans, to eliminate errors and to search for alternatives. A rapidly changing institutional environment increases 1) learning costs through higher error probability and 2) transaction costs caused by error elimination. The slow pace of the reform process in China facilitated governmental learning. Hence, public choice and the activities of po-

werful interest groups both worked toward new institutions that promote high growth. In Russia, the rapid exchange of an entire formal institutional framework inhibited governmental learning and led to a strong decline in growth for a long period.

Summary

Mainstream studies in economic development are not lacking. However, the mainstream approach assumes omnipotent public policymakers who have perfect knowledge and governments that are error free. In addition, uncertainty is treated in a static sense, and hence learning means simple optimization with given known options. In the real world, the outcome of activities is not exactly predictable, and decision-makers face cognitive challenges through novelty, creativity and experimentation. How much decision-makers succeed in learning and unlearning determines or at least significantly affects the economic performance of a country. These elements are largely missing in mainstream economic analysis. This paper emphasizes the role of dynamic governmental learning under the conditions of bounded rationality and radical uncertainty that are the main characteristics of a radical institutional change such as a transition process. This shows that the sustained growth in China and the strong decline in growth in Russia are determined by the capability and opportunity for governmental learning.

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