

THE DISTINCT DIFFERENCES BETWEEN OLD AND EMERGING ECONOMY

RADISLAV JOVOVIĆ *

Abstract: *This paper is focused on a new economic reality. The purpose of this paper is to contribute analysis of the fundamental shift that is taking place in economy. This shift is from the neoclassical economy to the “new economy”. While changes have been happening and policy makers have made a plea for guidance in the era of new economy, scholars have been slow to respond. This paper attempts to identify and articulate differences between old and new reality in economy. We do this by contrasting the most fundamental elements of the newly emerging reality with those of the old economy. We identify the very significant departure from neoclassical economy and we can admit that the new objective of ideas is necessary to explain the real contrast two polar worlds. The common thread throughout these trade-offs is the increased role of knowledge, information and technological improvements.*

Key words: *New economy, information asymmetry, transaction costs, knowledge.*

Apstrakt: *Ovaj članak se fokusira na novu ekonomsku realnost. Cilj ovoga rada je da doprinese analizi fundamentalnih promjena koje se dešavaju u ekonomskoj stvarnosti. To su promjene od neoklasične ekonomije ka „novoj ekonomiji“. Dok se promjene dešavaju ubrzano, a kreatori politike traže smjernice, naučnici su spori u odgovorima. Ovaj rad je pokušaj da se identifikuju i saopšte razlike koje se pojavljuju u ekonomiji. To će se uraditi sa upoređivanjem najosnovnijih elemenata nove ekonomske realnosti sa onim u staroj ekonomiji. Identifikovane se veoma važna napuštanja klasične ekonomije uz tvrđenje da je potreban novi objektiv ideja da objasni stvarni kontrast dvopolna svijeta. Zajednička nit tih razlika je povećanje uloge znanja, informacija i tehnoloških poboljšanja.*

Ključne riječi: *nova ekonomija, informaciona asimetrija, transakcioni troškovi, ekonomija znanja.*

(UDC: 330.88; JEL classification: A 10, D 23, D 82; Original scientific paper;
Received: June 12, 2005)

1. Introduction

We all have aspirations, tastes, preferences, desires and feelings. We all have unsatisfied wants. We cannot have everything we want. This fact means that we live in a world of scarcity: what we want exceeds what is available. We satisfy wants by acquiring goods. To produce goods we need to use multitude of things including land, machines, people, raw materials, knowledge and time. All these things become resources when we develop a desire. For the goods they have to produce. This is, resources are created. Once they are created, we search for more of them. Given that resources are scarce relative to human wants and are capable of alternative uses, all human societies – yesterday, today, and tomorrow – have to resolve two fundamental sur-

vive issues; who gets what and who does what. In fact people have to worry about distribution of goods and production and innovation.

Economic science has been developing to identify circumstances that affect the costs of alternative choices, to analyze their implications for human decisions, and to make verifiable prediction about economic outcome. Economics, then, is the science of choice. Economics theories must explain a wide class of a real world events and yield observable propositions. The economic concepts which have been developed for handling various problems are useful for handling a wide range of problems. Opportunity costs, supply and demand schedules, marginal costs, marginal revenue, maximization profits – they're all very useful concepts that you can use. And not simply for economic problems but for others as well. And the empirical work that is done is very useful. It is useful work which provide information within the existing scheme. But

* PhD, visiting professor at the Faculty of Economics in Podgorica, University of Montenegro.

it isn't useful to explain why economic system change (Why economics change?).

It is necessary to change way we look at the problem. If we study what economists have said about their subject, how do they describe it? Take John Manyard Keynes, John Hicks, Gary Backer. According to Keynes economics is a method, it is a way of thinking, not a doctrine. John Hicks says it is discipline, not a science. Lionel Robbins talks about economics as studying human behavior as a relationship between ends and scarce means which have alternative uses. Georgy Becker talks about an economic approach. In effect what they are saying is that economics is a bag of tools, a way of analyzing problems, and it no doubt is. Also these tools uses to analyze other subjects, for example, politics.

So, I agree with opinions that economics have to study not part of problem but the whole of it. That is to say, they don't think they're studying any system with all its interrelationships. "It is as if a biologist studied the circulation of the blood without the body." (Coase, p. 2). In fact economic system is extremely complicated. How parts of system are interrelated, how it actually works – is task of economy. What is the base for beginning of economy? It is transaction. Today making transaction needs different activities which cost of transactions. Transaction costs depend on the working of legal system (the system of property rights, the enforcement of property rights, the ability to foresee what the legal decision will be, and so on). They also depend on political system, they depend on the educational system, and they are interrelated with other social systems and the culture. That means that economics system can't explain only economics. We need more knowledge to understand how the economic system actually operates.

The influence of the level of transaction costs of course is also affected by technological factors, by development of information technologies (IT). A large component of transaction costs is of course the cost of obtaining information. And since IT in fact lowers the cost of getting information, it has an affect of lowering transaction costs. Therefore, as a result, we can admit that IT bring the major changes thorough lowering the transaction costs of doing business.

This theme discussed professor Hal Varian of the University of California Berkley. This is what he says. "There was never a new economics to go along with the new economy. Sure, there was a lot of talk about increasing returns,

network effects, switching costs and so on. But these are hardly new concepts; they've been part of the economics literature for decades. Furthermore, although these are important ideas, they aren't Big Ideas. They explain certain phenomena well, but they have limited reach. Those in search of a really big idea has to look further back in economics literature. They hit gold with "The Nature of the Firm", 1937 paper..." (Varian, p. 42). Ronald Coase doesn't agree with him. He noticed that "It's interesting to think that a paper in 1937 has now become a part of the literature on the Internet. And added "Transaction costs fall: what are the effects? According to Varian "New economy advocates found this (the idea of transaction costs) a compelling idea. One consequence of the Internet has surely been to make it cheaper to communicate. This should, in turn, lower transaction costs and change company boundaries. Their conclusion was that companies would inevitable downsize and outsource, spin off unnecessary functions, and carry out more and more transactions using Internet instead of internal memos," However, Professor Varian questions this remark. He says that although the Internet lowers the costs of transactions between firms, it also lowers the cost of communications within firms and makes therefore larger organizations easier to run and organize. " (Coase, 1997, p. 4).

According to Coase, this isn't the end of analysis. Lowering transaction costs enables firms to lower costs of their core activity. And this may in effect lead to greater activity, greater production, and therefore larger firms.

2. Information asymmetry

According my opinion, the real economic life requires for development of a theory which explain the new phenomena. It is theory of "new economy". Weather is this theory departure from neoclassical economics. It is not purpose of this work to degenerate a theory that has made numerous contributions to our understanding of social and economic issue. It is, however, important to understand that theory of neoclassical economics does not explain a new phenomena. In the new theory, the effect of innovations replace maximization paradigm. Flexibility and learning replaces assumption of a rational agent who is able to identify the optimal strategy in each situation without any learning process. "In fact, neoclassical economics is silent about both the effects of alternative rules on the

agents' costs of acquiring the knowledge required to make optimal choices and the effects of new knowledge on prevailing rules" (Pejovich, p. 6).

"... The only institutions existing in (the neoclassical model) are markets of the competitive type in which all information on the economy must be transmitted through the prices formed in these markets. The economy is therefore assumed to have... none of the many social institutions that are created by societies to help coordinate their economic and social activities by offering information not available in competitive prices" (Schotter, p. 675)

Whether or not the neoclassical model corresponds to the real world? The main question is: is information perfect. The answer it is – not. Information imperfections are pervasive in the economy: indeed, it is hard to imagine, as Stiglitz noticed, what a world with perfect information would be like. It is obvious that different people know different things: workers know more about their ability than does the firm; the person buying insurance knows more about his health, whether he smokes and drinks immoderately, than the insurance firm; the owner of a car knows more about the car than potential buyers; the owner of a firm knows more about the firm than a potential investor; the borrower knows more about his risk and risk taking than the lender. The essential feature of a decentralized market economy is that different people know different things; in this sense, "economists had long been thinking of markets with information asymmetries. But the earlier literature had neither thought about how they were created, or what their consequences might be. Moreover, while much of the earlier literature focused on simple situations of information asymmetry, the problems of information *imperfections* run deeper." (Stiglitz, p 56). The individual may know little about his true health condition; the insurance company, through a simple examination, might even become more informed (at least concerning relevant aspects, e.g. implications for life expectancy). Some of these information asymmetries are inherent: the individual naturally knows more about himself than does anyone else. Some of the asymmetries arise naturally out of economic processes.

The current employer knows more about the employee than other potential employers; a firm knows may find out a great deal of information in the process of dealing with his supplier that others may not know; the owner of a

car naturally knows the faults of the car better than others – and in particular, he knows whether or not he has a lemon. While such information asymmetries inevitably arise, the extent to which they do so and their consequences depend on how the market is structured, and the recognition that they will arise affects market behavior. For instance, one of the important insights of work in this area is to show how information asymmetries lead to thin or non-existent markets (Akerlof [1970]). But this means that even if an individual has no more information about his ability than potential employers, the moment he goes to work for an employer, an information asymmetry has been created – the employer may know more about the individual's ability than others. The consequence is that the "used labor" market does not work well. Others will be more tame in bidding for his services, knowing that they will succeed in luring him away from his current employer only if they bid too much. If they bid less than his productivity, his current employer will match. Labor mobility is impeded. But that gives market power to the first employer, which he will be tempted to exercise. The recognition of this naturally affects even the "new labor" market.

3. Transaction costs and information

The theory property rights is a major departure from neoclassical economies. Exchange and production are the major methods by which people seek to resolve problems that have their source in scarcity. The pursuit of exchange involves two levels of social activity. The first is the development, modification, and specification of institutions. The second level of social activity is exchange within the prevailing institutional arrangements. The former is about the rules of game, while the latter is about the game itself.

The rules of game are costly to produce. They are also costly to practice. These costs are transaction costs. Transaction costs of all resources required for making an exchange (e.g., discovering, exchange opportunities, negotiating exchange, monitoring, and enforcement), and for developing, maintaining, and protecting the institutional structure (e.g., judiciary, police, armed forces).

Ronald Coase, Douglas North, Svetozar Pejovich raised the issues of the importance of transaction costs for better understanding of social and economic process. Joseph Stiglitz and

others raised the issue of importance of information for understanding economy.

The reason why economists went wrong was that theoretical system did not take into account a factor which is essential for economics development if one wishes to analyze the effect of a change in allocation law and a new important resource – knowledge, creativity and innovations.

Neoclassical economics is a product of the age of rationalism, with its conventional wisdom that nature had endowed individuals with reason capable of discovering and implementing efficient solutions to their existing problems. It summarizes the desire for more utility, a basic trait of observed human behavior, into the maximization paradigm, and analyze economics outcomes of that behavior in a world of non-attenuated private ownership and insignificant a transaction cost and information costs. By adjusting assumptions and constrains facing the individual decision maker, neoclassical economics has been able to identify a series of equilibrium. All those equilibrium are idealized statements about what the world would have been if uncertainty and incomplete knowledge were to go away.

Information is not free good. In a world of uncertainty and incomplete knowledge, it takes real resources (including time) to produce information. It is widely known that it takes time and money to gather information about employment opportunities, but the search costs might prevent them from discovering the best alternative. Shoppers know that by driving around they can gain the best bargains, but it might not be an efficient thing to do given the cost of gasoline and the alternatives for the time. However if the price at which person could obtain additional information were reduced, additional exchange opportunities would be exploited and the extent of exchange increased.

An important issue that underlines a new view is: the influence of IT to reduction transaction costs.

In private-property, free economy, resources are devoted to producing and selling information. The cost of negotiation can be substantial. The parties may not know each other. They may not have all relevant information about goods and services. Good and services have multiple attributes that are costly to measure. A consequence of measuring all those attributes would be a reduction in the extent of exchange.

Exchange is costly to enforce. Douglas North and John Willis made the first comprehensive effort to measure transaction costs. According them, the gains from trade are consequence of specialization and the division of labor. They are realized through exchange, which is not costless. An important implication is that transaction costs are a limited factor on economic growth. It follows that incentives for efficiency improvements in the transaction sector are as important as those in production sector. The issue is which set of institutions provides incentives for innovation in the transaction sector of the economy.

According to North and Wallis, transaction costs rose substantially during that period. Summarized their empirical findings show increase transaction costs from 26,09 percent (in 1870) to 1970 (54,71) percent (in Pejovich, p. 34).

They offer three major explanations for the expansion of resources used in the transaction sector of a growing economy. First, the replaces repeated dealing with contractual partners we know with an ever-lengthening chain of exchanges carried out between individuals who have knowledge of each other. Impersonal exchange requires more information-gathering activities as well as more elaborate enforcement mechanisms. Second, capital-intensive production techniques increase incentives for business enterprises to grow in size. An implication is that more resources have to be devoted to transaction services within the firm.

4. Information technologies and economic performance

Recent years have seen a substantial increase in research on the relationship between information and knowledge and economic performance.

One sign that there has been a fundamental shift is that direct production of goods and services no longer absorbs the preponderance of workers' time. In 1975, production of goods and services ceased being the occupation of the majority of U.S. workers. Never before had a society been so productive that it could afford to assign most of its workers to white-collar tasks such as management, paperwork, sales, and creativity. As recently as 1900, production workers in goods and services accounted for 82 percent of the U.S. workforce. Over the course of the century, that number declined by large steps,

to 64 percent in 1950, and to 41 percent in 1999. Managers, professionals, and technical workers, who are increasingly involved in creative activities, have risen from 10 percent of the workforce in 1900 to 17 percent in 1950, to 33 percent in 1999 (Nakamura, p. 16).

Perfect competition is the central paradigm economists have relied on to describe capitalist economies. This paradigm, which underlies Adam Smith's "Invisible Hand" theorem, focuses on production processes and abstracts from the informational tasks that managers, professionals, clerks, and sales workers perform. The paradigm of perfect competition was formulated by William S. Jevons, Leon Walras, and Carl Menger in the late 19th century, a time when direct production of goods and services dominated work. Is this paradigm still appropriate in an age in which innovation is such an important economic activity; millions of workers are employed in *creative* activities, such as designing, inventing, and marketing *new products*; and more and more economic activity is devoted to creating technical progress? Is the theory set by Adam Smith appropriate for waive of changes. It is not explain why economics changes! Theory set forth by Joseph Schumpeter and often referred to as creative destruction is a better paradigm for the emerging "new economy".

5. The world of the invisible hand

Ever since Adam Smith's *The Wealth of Nations* (1776), most economists have espoused the view that a specific aspect of competition called *perfect competition* is the main engine to economic efficiency. In terms of the metaphor of recipes, this type of competition requires that all firms in an industry have access to the same set of recipes. Let's explore this idea to gain insight into the standard demonstration of the Law of the Invisible Hand. A recipe for producing a good or a service has a list of ingredients: quantities of inputs, including the services of labor and capital, that go into making the final product. The desire to maximize profits induces each firm to produce the product at the lowest possible cost — that is, to use the recipe that allows the firm to produce the good or service at minimum cost — given the prices of ingredients. If many firms compete, and all of them can use the same recipes, no firm can charge more than the lowest cost at which all competing firms can make the product. If it did, a competitor would offer the

product at a lower price and make a profit doing so. If prices of inputs change, firms may adopt a different recipe, but they will still seek to produce at lowest cost, and competition will still force firms to charge no more than the new lowest cost. Thus, a consumer buys from firms that, in their own self-interest, produce products as efficiently as the consumer could wish and charge prices that reflect the lowest possible production cost. Guided by the invisible hand of the marketplace, firms are led by self-interest to behave in a way that maximizes each consumer's well being — so long as there is vigorous competition among firms.

This is the Law of the Invisible Hand. In general, Smith's Law of the Invisible Hand implies that government interference in the perfectly competitive economy is unnecessary except for ensuring that monopoly does not arise. If a firm can exclude other firms from its market, thereby monopolizing a good, it will maximize profits by restricting supply and charging more than the cost of production. When that happens, consumers buy less of the monopolized good than they would at the lower price that competition would force firms to charge. The result is that the economy will operate inefficiently: too little of the monopolized good will be produced and consumers will be worse off than they would be if the good were produced competitively. In this theory, monopoly is a primary threat to the efficiency of a capitalist economy. In some cases, however, a single producer may yield the lowest cost way of producing a good or service, perhaps because the cost of making an additional unit of the good keeps falling as more units are produced by a producer (economists refer to this as scale economies). In such cases, the government's role is to regulate the monopoly so that it does not artificially restrict supply. Smith's theory also implies that governments can assist the invisible hand by abolishing artificial barriers to trade. This can force into competition firms that otherwise might have monopolized small markets. At the same time, larger markets encourage individuals to specialize in different parts of the production process and coordinate their labor. In turn, specialization — the division of labor — is the chief engine of increased productivity.

Division of labor, according to Smith, owes its power to increase productivity to three sources: "first, to the increase of dexterity in every particular workman; secondly, to the saving of the time which is commonly lost in pass-

ing from one species of work to another, and lastly, to the invention of a great number of machines which facilitate and abridge labor, and enable one man to do the work of many” (p. 7). Smith saw the inventive activity that improved production techniques as being a byproduct of the division of labor, since, when a worker concentrated attention on one activity, time-saving inventions often came to mind. Of course, even in the 18th century, when Smith was writing, the activity of inventors and other creative workers, was evident in the economy, but the flow of payments to creative work was minuscule compared with those that flowed to the labor, land, and capital that directly produced products. Smith saw progress in economic activity as flowing naturally, almost magically, from wider markets. The theory of the invisible hand, as it has evolved within modern economic growth theory, treats both economies of scale and creative activity as *exogenous*, that is, outside the scope of economic theory, and therefore “magical.” But an alternative perspective is to describe economies of scale and technical progress as *endogenous* to the economy, viewing creativity as an economic activity. This perspective on economics found its foremost advocate in a Harvard professor named Joseph Schumpeter, who wrote in the first half of the 20th century, during the years when formal corporate research and development first emerged on a substantial scale.

6. The new economy of creative destruction

J. Schumpeter argued that what really made capitalism powerful was profits derived from creativity. He believed that the force of habit was extremely powerful in work life and that since economic development required implementing creativity, overcoming this inertia was crucial. In his masterwork, *Capitalism, Socialism, and Democracy* (1942), Schumpeter constructed a paradigm for economic theory in which creativity was the prime mover in a modern economy, and profits were the fuel. He argued that what is most important about a capitalist market system is precisely that it rewards change by allowing those who create new products and processes to capture some of the benefits of their creations in the form of short-term monopoly profits. Competition, if too vigorous, would deny these rewards to creators and instead pass them on to consumers, in which case firms would have scant reason to create new products. These monopoly profits provide entrepreneurs with the means to (1)

fund creative activities in response to perceived opportunities; (2) override the natural conservatism of other parties who must cooperate with the new product’s launch as well as the opposition of those whose markets may be harmed by the new products; and (3) widen and deepen their sales networks so that new products are quickly made known to a large number of customers.

The drive to temporarily capture monopoly profits promotes, in Schumpeter’s memorable phrase, “creative destruction,” as old goods and livelihoods are replaced by new ones. Thus, while Adam Smith saw monopoly profits as an indication of economic inefficiency, Joseph Schumpeter saw them as evidence of valuable entrepreneurial activity in a healthy, dynamic economy. Indeed, Schumpeter’s view was that new products and processes are so valuable to consumers that governments of countries should encourage entrepreneurs by granting temporary monopolies over intellectual property and other fruits of creative effort. Thus, in contrast to Adam Smith, Schumpeter argued that government action to prevent or dismantle monopolies might harm growth and the consumer in the long run. In practice, temporary intellectual property protection has been adopted by all advanced industrial economies, suggesting that this reward system is indeed valuable in promoting economic growth. To this extent, modern economies have not obeyed the law of the invisible hand. We have made monopoly, albeit temporary, an important instrument of national development policy. On the other hand, the temporary monopoly protections of intellectual property law are not the only way modern societies reward innovators. For example, much scientific research is generated by grants made by public agencies or private foundations.

Development of military products is often done for a fixed payment, which is determined by a bidding process, or on the basis of the incurred and audited costs of the developer. However, these alternative reward systems are employed only where a normal market does not exist for the product. For consumer products, it appears that, in general, the marketplace is the best measure of the value of an invention. The more valuable the product, the greater the reward to its creator should be. And that’s exactly what a patent or copyright does — gives the creator a reward that rises with consumer value, because the greater a product’s consumer value, the more profit a monopolist can realize from its

sales, since the monopolist can charge more for it. At the same time, it remains true that the temporary monopoly itself deprives society of the full value of the creation, since to secure their monopoly profits, firms limit supply. Thus, the full value of the creation is realized only when the monopoly ends. While Schumpeterian theories tell us some form of intellectual property protection for creators is desirable, they do not yet tell us how much protection to award, for instance, how long patents should last.

There are two important drawbacks to an economy of creative destruction. First, an economy of creative destruction knows only one pace — hectic. There is no way to know who created something except for priority — whoever says or does it first. Once something is discovered, it is easy to copy. Someone who independently creates something, but does so belatedly, does not get credit and does not share in the reward. The rewards of creativity go to the swiftest. It is thus no accident that long hours are a frequent correlate of creative activity. Second, creative destruction, as its name implies, involves risk and change. Those whose products are outmoded by a new product lose their livelihoods. Even those who create a new product can predict but a small part of its consequences. The forces that oppose creativity are not irrational; they are the natural concerns of economic participants as to how they will be affected by creativity.

7. The trade-offs between old and emerging economy

I Localization versus globalization. The meaning of geographic space differs between the old and “new economy” In the old economy, the standardization of products and production reduced the importance of regional specific characteristics. As represented by neo-classical production function, production in the old economy results from the inputs of land, labor and capital (Romer, 1992). While these traditional inputs still plays a role in “new economy”, knowledge has emerged as the most important factor of production. A recent literature from the new growth theory argues that knowledge differs inherently from the traditional factors of production in that it cannot be costlessly transferred across geographic space (Krugman, 1991a and 1991B and Lucas, 1993). “This is why under “new economy” geography play a more important role in that knowledge trends to be developed in the

contexts of localized production networks embodied in innovative clusters.

The empirical evidence clearly suggests that R&D and other sources of knowledge not only generate externalities, but also that such knowledge spillovers tend to be geographical bounded within the region where the new economic knowledge was created (Audretsch and Feldman, 1996, Audretsch and Stephan, 1996, Jaffe, Trajtenberg and Henderson, 1993, and Jaffe, 1989). That is, “new economic” knowledge may spill over, but the geographic extent of such knowledge spillovers is limited. In fact, the geographic dimensions of knowledge remains a local phenomena, largely unchanged by globalization. On the other hand, globalization has made it possible to transfer information costlessly across geographic space. Under old economy, the traditional factors of land, labor and capital are predominant as source of comparative advantage. In the “new economy” the comparative advantage is based on innovative activity. An important source of this innovative activities is knowledge spillovers that cannot be easily diffused across geographical space.

II Change versus creativity. There is an inherent trade-off between change on the one hand and continuity, on the other. While the old economy depend upon continuity (Chandler, 1977), the “new economy” provokes and thrives on changes.

Innovation is present under both change and continuity. The difference is shaped by a distinction between incremental and radical innovations. Innovations can be considered to be incremental when that they are compatible with the core competence and technological trajectory of the firm (Teece, Rumult, Dosi and Winter, 1994). The implementation of such incremental innovations does not require significant change in the firm or its personnel. By contrast, a radical innovation can be defined as extending beyond the boundaries of core competence and technological trajectory of the firm. Both theoretical reasons and empirical evidence support the notion that firm are characterized by technological lock-in. The old economy was designed to absorb change within a given technological paradigm, and hence, the typical firms excelled at incremental innovation. By contrast, in the “new economy” capacity to break out technological lock-in in the imposed by existing paradigms is enhanced.

III Turbulence versus stability. The old economy was characterized by remarkable sta-

bility. This stability is characterized by product homogeneity and durability of demand, resulting in a constant population of firms, and low turnover rate of both jobs and workers. This stability was conducive to mass production. Just as Taylorism provided a marginal mechanism for ensuring the stability and reliability of workers in the production process, competition focused on the dimensions of prices but not necessarily product differentiation (Chelander, 1977).

The “new economy” is characterized by a tremendous degree of turbulence. It is economy in motion, with massive number of new firms entering each year.

IV Diversity versus specialization. Specialization is a prerequisite of a neoclassical economy. Diversity is preferable in the “new economy” Recent studies have provided evidence testing the impact of diversity versus specialization on the performance of regions, measured in terms of growth (Glaseser, Kallal, Scheinkman and Shleifer, 1992) and term of innovative activity (Feldman and Audretsch, 1999). These studies provide systematic empirical support for the thesis that diversity is more conducive to knowledge spillovers and ultimately innovative activity and subsequent growth than is specialization.

V Heterogeneity versus Homogeneity. There are two dimensions shaping the degree of homogeneity/heterogeneity. The first refers to the genetic make-up of individuals and their personal experiences (Nooteboom, 1999). The second dimension refers to the information set to which they are exposed. The old economy is based on homogeneity, the “new economy” on heterogeneity.

A world of homogenous economics agents promote diffusion but not innovation.

In a heterogeneous population each individual has a unique information set (Olson, 1982). New ideas are more likely to emerge from communication in a heterogeneous than in homogeneous world.

VI Motivation versus Control. In the industrial era, labor was considered to be indistinguishable from all other inputs. Thus, the labor input in the production process was reduced to routine (Chandler, 1990). However, as the comparative advantage of advanced industrialized countries in Europe and in North America become increasingly based on new knowledge, the command and control approach to labor become less effective. What matters less is requiring an established set of activities from knowl-

edge workers and what matters more is motivating the workers to facilitate the discovery and implementation of new ideas. The central feature of work is dealing with uncertainty. As uncertainty replaces predictability as the main characteristic of the work environment, women who deal with uncertain situations are more valuable in the “new economy”. Thus, in “new economy” motivating employees to participate in the creation and commercialization of new ideas matters more than in simply controlling and regulating their behavior.

VII Market Exchange versus Firm Transaction. In an era where uncertainty is high and information is imperfect, market exchange tends to be more deficient than intra-firm transactions efficient relative to market exchange. In the old economy, which was dominated by a high degree of certainty and predictability of information, transaction within firms tends to be more efficient than market exchange. This is consistent with work of Coase (1937) and more recently by Williamson (1975), an analytical distinction was made between exchange via market and intra-firm transaction. Coase (1937) and later Williamson (1975) argued that the size of an enterprise will be determined by answering what Coase (1937, p. 30) articulated as “The question always is, will it pay to bring an extra exchange transaction under the organization authority?” Both Coase (1937) and Williamson (1975) emphasize that uncertainty and imperfect information increase the cost of intra-firm transaction.

VIII Competition and Co-operation as Complements versus Competition and Co-operation as Substitutes. While models of competition generally assume that firms behave autonomously, models of cooperation involve linkages among firms. These linkages take various forms, including joint ventures, strategic alliances, and formal and informal networks (Gomes-Casseres, 1996 and 1997). In the old economy competition and co-operation are viewed as being substitutes. This is because firms are vertically integrated and compete primarily in product markets. Co-operation between firms in the product market reduces the number of competitors and lessens the degree of competition. In the “new economy” firms are vertically independent and specialized in the product market. The greater degree of vertical disintegration in the “new economy” means that co-operation among independent firms replaces internal transactions within a large vertically integrated corporation. At the same time, there are more firms, resulting in an in-

crease in both the competitive as well as the cooperative interface. The likelihood that a firm may end up competing or co-operating with another firm is greater in the new economy. In addition, new and enhanced configurations bring independent firms together in new and unexpected ways.

IX Flexibility versus Scale. The classic manner for reducing cost-per-unit in economics under the old economy was through expanding the scale of output, or through exploiting *economies of scale*. In product lines and industries where a large scale of production renders a substantial reduction in average cost, large firms will have an economic advantage, leading to a concentrated industrial structure. The importance of scale economies no doubt contributed to the emergence and dominance of large corporations in heavy manufacturing industries such as steel, automobiles, and aluminum (Chandler, 1977). The alternative source of reduced average costs under the new economy is through flexibility. As Teece (1993, p. 218) argues, "Flexible specialization ... and contracting may today yield greater advantages than economies of scale and scope generated internally." Industries where demand for particular products is constantly shifting require a flexible system of production that can meet such a shifting demand. There are four major sources of flexibility – technological, organizational, demand side and qualitative. These four sources of flexibility result in a decrease in the importance of scale economies.

X Stimulation versus Regulation The public policies emerging in the post-war period of the old economy dealing with the firm in the market were essentially constraining in nature. There were three general types of public policies towards business -- antitrust (competition policy), regulation, and public ownership. All three of these policy approaches restricted the firm's freedom to contract. While specific policy approaches tended to be more associated with one country than with others, such as antitrust in the United States, or public ownership in France and Sweden, all countries shared a common policy approach of intervening to restrain what otherwise was perceived as too much market power held by firms. Public policies constraining the freedom of the firm were certainly consistent with the *Weltanschauung* emerging from the theories and empirical evidence. Left unchecked, the large corporation in possession of market power would allocate resources in such a way as to reduce economic welfare. Through state interven-

tion the trade-off between efficiency on the hand and fairness on the other would be solved in a manner that presumably would be more socially satisfying. Galbraith (1956) is the seminal statement on the role of government in the old economy, where state intervention typically involved the social partnership of big business, big government and big labor. This social partnership existed in nearly every Western economy. In the "new economy" the relevant policy question has shifted away from *How can the government constrain firms from abusing their market power?* to *How can governments create an environment fostering the success and viability of firms?*²⁰ The major issues in the "new economy" have shifted away from concerns about excess profits and abuses of market dominance to international competitiveness, growth and employment. The concern about corporations is not that they are too successful and too powerful but that they are not successful enough. Jorde and Teece (1991) argued for the emasculation of the antitrust laws in order to enable American firms to co-operate and compete more effectively against their Japanese and European competitors.

XI Targeting Inputs versus Targeting Outputs Stimulation and regulation are not the only dimensions regarding the role of government policy in the "old" and "new economies". A second dimension involves targeting selected outputs or outcomes in the production process versus targeting selected inputs. Because of the relative certainty regarding markets and products in the managed economy, the appropriate policy response is to target outcomes and outputs. Specific industries along with particular firms could be promoted through government programs. The targeting of specific firms in selected industries was clearly a successful policy for Japan in the post-war period and helped the Japanese achieve the competitive advantage in industries such as automobiles and electronics. As Joseph E. Stiglitz (1996) concludes from "Some Lessons from the East Asian Miracle," "government interventions acting together" (p. 151) account for at least part of the post-war Japanese growth miracle. The success of Japanese industrial policy in promoting a broad range of performance criteria, spanning the trade performance to economic growth has been painstakingly documented in a number of systematic empirical studies (Pugel, 1984; Audretsch, 1989; Audretsch and Yamawaki, 1988; Noland, 1993 and Okuno-Fujiwara, 1991).

XII Local policy versus national policy. Important aspect difference between old and "new economy" is the locus of policy. Under the old economy, the appropriate locus of policy making is at the national or federal level. While the targeted recipients of policy may be localized in one or a few regions, the most important policy making institutions tend to be at the national level. By contrast, under the "new economy", the locus of overmnt policy towards business tends to be decentralized and regional in nature.

XIII Risk capital versus low-risk capital. Under "new economy", the traditional means of finance are not longer appropriate. Of particular importance is venture capital, which has traditionally been a form of finance for high-risk innovative new firm and informal capital market (Gaston, 1989, Gompers, 1999)

8. Conclusions

Old economy was based on relative certainty in outputs, which consisted mainly of manufactured products, and in inputs, which consisted mainly of land, labor and capital. In "new economy" knowledge as an input into economic activity is inherently different from land, labor and capital. It is characterized by high uncertainty, high asymmetries across people and is costly to transact. The response to an economy where knowledge is the main source of comparative advantage is the "new economy". This paper has identified the main characteristics that differ between the old and "new economy" and provides a framework for understanding how the "new economy" fundamentally differs from old economy. Such a framework we hope will provide provides a lens through which to interpret economic events and formulate policy.

Bibliography:

Arrow, Kenneth J., 1962, "Economic Welfare and the Allocation of Resources for Invention", in: R.R. Nelson (ed.), *The Rate and Direction of Inventive Activity*, Princeton: Princeton University Press, 609-626.

Audretsch, David B., 1989, *The Market and the State*, New York: New York University Press.

_____, 1995, *Innovation and Industry Evolution*, Cambridge: MIT Press.

Audretsch, David B., Martin A. Carree, Andre van Stel and Roy Thurik, forthcoming, "Impeded industrial restructuring: the growth pen-

alty", Discussion Paper, Tinbergen Institute, Erasmus University Rotterdam.

Audretsch, David B. and Maryann P. Feldman, 1996, "R&D Spillovers and the Geography of Innovation and Production", *American Economic Review*, 86 (3), June, 630-640.

Audretsch, David B. and Paula E. Stephan, 1996, "Company-Scientist Locational Links: The Case of Biotechnology", *American Economic Review*, 86 (3), June, 641-652.

Audretsch, David B. and Julie A. Elston, 1997, "Financing the German Mittelstand", *Small Business Economics*, 9 (2), 97-110.

Audretsch, David B. and Roy A. Thrik, 1998, "What's new about the new economy?", Institute for Development Strategies, US.

Chandler Alfred D. Jr, 1977, *The Visible Hand: The Managerial Revolution in American Business*, Cambridge: Harvard University Press.

Chandler, Alfred, 1990, *Scale and Scope: The Dynamics of Industrial Capitalism*, Cambridge: Harvard University Press.

Christensen, Clatton M., 2000, *The Inventor's Dilemma: When New Technologies Cause Great Firms to Fail*, New York: Harper Collins.

Colombato, E, (2002): *Was transition about free-market economics*, Zbornik, preduzetnička ekonomija, Podgorica.

Coase, R.H., 1937, "The Nature of the Firm," *Economica*, 4 (4), 386-405.

_____, 1997, Interview about New Institutional Economics, Ronald Coase Institutut.

Feldman, Maryann P., 1996, *The Geography of Innovation*, Boston/Dordrecht: Kluwer Academic Publishers.

Feldman, Maryann P. and David B. Audretsch, 1999, "Innovation in Cities: Science-Based Diversity, Specialization and Localized Competition", *European Economic Review*, 43, 409-429.

Galbraith, John K., 1956, *American Capitalism: The New Industrial State*, Boston: Houghton Mifflin.

Glaeser, Edward L., Hedi D. Kallal, Jose A. Scheinkman and Andrei Shleifer, 1992, "Growth of Cities," *Journal of Political Economy*, 100 (4), 1126-1152.

Gomes-Casseres, Benjamin, 1997, "Alliance Strategies of Small Firms", *Small Business Economics*, 9 (1), 33-44.

_____, 1996, *The Alliance Revolution: The New Shape of Business Rivalry*, Cambridge, MA: Harvard University Press. Gompers, P., 1999, *The Venture Capital Cycle*, Cambridge, MA: MIT Press.

- Griliches, Zvi, 1992, "The Search for R&D Spillovers", *Scandinavian Journal of Economics*, 94 (S), 29-35.
- Jaffe, Adam B., 1989, "Real Effects of Academic Research", *American Economic Review*, 79 (5), 957-970.
- Jaffe, Adam B., Manuel Trajtenberg and Rebecca Henderson, 1993, "Geographic Localization of Knowledge Spillovers as Evidenced by Patent Citations", *Quarterly Journal of Economics*, 63 (3), 577-598.
- Jorde, Thomas M. and David J. Teece, 1991, "Antitrust Policy and Innovation: Taking Account of Performance Competition and Competitor Cooperation", *Journal of Institutional and Theoretical Economics*, 147 (1), 118-144.
- Krugman Paul, 1991, *The Age of Uncertainty*, Cambridge: MIT Press.
- _____, 1991a, *Geography and Trade*, Cambridge: MIT Press.
- _____, 1991b, "Increasing Returns and Economic Geography", *Journal of Political Economy*, June, 99 (3), 483-499.
- Lucas, Robert E. Jr., 1993, "Making a Miracle," *Econometrica*, 61 (2), 251-272.
- Nakamura, I. Leonard, 1995, "Measuring Inflation in a High-Tech Age", *Federal Reserve Bank of Philadelphia Business Review*, November/December.
- _____, 1997, "Is the U.S. Economy Really Growing Too Slowly? Maybe We're Measuring Growth Wrong", *Federal Reserve Bank of Philadelphia Business Review*, March/ April.
- _____, 1998, "The Retail Revolution and Food-Price Measurement," *Federal Reserve Bank of Philadelphia Business Review*, May/June.
- _____, 1999, "Intangibles: What Put the New in the New Economy?" *Federal Reserve Bank of Philadelphia Business Review*, July/August.
- _____, 2000, "Economics and the New Economy", *Business review*, July/Avgust, 15-27
- Nelson, Richard R. and Sidney G. Winter, 1982, *An Evolutionary Theory of Economic Change*, Cambridge: Harvard University Press.
- Nelson, Richard R., 1981, "Assessing Private Enterprise: An Exegesis of Tangled Doctrine", *Bell Journal of Economics*, 12, 93-111.
- _____, 1990, "Capitalism as an Engine of Progress", *Research Policy*, 19, 190-214.
- _____, 1992, "U.S. Technological Leadership: Where Did It Come From and Where Did It Go?", in F.M. Scherer and M. Perlman, eds, *Entrepreneurship, Technological Innovation and Economic Growth: Studies in the Schumpeterian Tradition*, Ann Arbor: University of Michigan Press, 25-50.
- _____, 1995, "Co-evolution of Industry Structure, Technology and Supporting Institutions, and the Making of Comparative Advantage", *International Journal of the Economics of Business*, 2 (2), 171-184.
- Neumann, Manfred, 1993, "Review of Entry and Market Contestability: An International Comparison," *International Journal of Industrial Organization*, 11 (4), 593-594.
- Nickell, S. J., 1997, "Unemployment and Labor Market Rigidities: Europe versus North America", *Journal of Economic Perspectives*, 11 (3), 55-74.
- _____, 1996, "Competition and Corporate Performance", *Journal of Political Economy*, 104, 724-746.
- Noland, Marcus, 1993, "The Impact of Industrial Policy on Japan's Trade Specialization", *Review of Economics and Statistics*, 75 (2), 241-248.
- Nooteboom B., 1994, "Innovation and Diffusion in Small Firms", *Small Business Economics*, 6, 327-347.
- Romer, Paul, 1990, "Endogenous Technological Change", *Journal of Political Economy*, 94 (1), 71-102.
- Smith, Adam, 1963, *The Wealth of Nations*. Reprinted Homewood, IL: Irwin.
- Stiglitz, Joseph E., 1994, *Whither Socialism?*, Cambridge: MIT Press.
- _____, 2000, *Globalization and Its Discontents*, Penguin Book
- Okuno-Fujiwara, Masahiro, 1991, "Industrial Policy in Japan: A Political Economy View", in: Paul Krugman (ed.), *Trade with Japan: Has the Door Opened Wider?*, Chicago: University of Chicago Press, 271-296.
- Olson, Mancur, 1982, *The Rise and Decline of Nations: Economic Growth, Stagflation and Social Rigidities*, New Haven, CT: Yale University Press.
- Pejovich, Svetozar, 1998, "Economic Analysis of Institutions and Systems", Kluwer Academic Publisher, Boston.
- Pugel, Thomas A., 1984, "Japan's Industrial Policy: Instruments, Trends, and Effects", *Journal of Comparative Economics*, 8 (4), 420-435.

Schumpeter, Joseph A., 1942, *Capitalism, Socialism and Democracy*, New York: Harper and Row.

Stephan, Paula E., 1996, "The Economics of Science", *Journal of Economic Literature*, 34(3), 1199-1262.

Stiglitz, Joseph E., 1996, "Some Lessons from the East Asian Miracle", *World Bank Research Observer*, 11(2), 151-177.

Teece, David J., 1993, "The Dynamics of Industrial Capitalism: Perspectives on Alfred Chandler's Scale and Scope", *Journal of Economic Literature*, 31, 199-225.

Teece, David, Richard Rumult, Giovanni Dosi and Sidney Winter, 1994, "Understanding Corporate Coherence: Theory and Evidence", *Journal of Economic Behavior and Organization*, 23 (1), 1-30.

Varian, Hal, 1999, *Information Rules*, Harvard Business School Press.

Williamson, Oliver, 1968, "Economies as an Antitrust Defence: The Welfare Trade-offs", *American Economic Review*, 58 (1), 18-36.

_____, 1975, *Markets and Hierarchies: Antitrust Analysis and Implications*, New York: The Free Press.

BITNE RAZLIKE IZMEĐU STARE I NOVE EKONOMIJE

Zaključak: *Stara ekonomija je bazirana na relativno izryjesnim outputima. Ona se uglavnom sastoji od industrijskih proizvoda i inputa koji obuhvataju prirodne resurse, rad i kapital. U "novoj ekonomiji" znanje kao input ekonomskih aktivnosti je resurs koji se bitno razlikuje od tradicionalnih. Ono se karakteriše visokom neizryjesnošću i asimetrijom informacija, zbog čega zahtijeva odgovarajuće transakcione troškove. "Nova ekonomija" upravo predstavlja ekvivalent ekonomije znanja. Ovaj rad identifikuje glavne karakteristike po kojima se "nova ekonomija" razlikuje od stare ekonomije i obezbjeđuje okvir za razumijevanje navedenih fundamentalnih razlika. Taj okvir će, nadamo se, obezbijediti novi ambijent u kojem će se odvijati ekonomske djelatnosti i formulisati adekvatna ekonomska politika.*