Labor Force Competitiveness in Croatia: status and problems

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1. What is Competitiveness and Why is it Important?

According to the most widely accepted definition, competitiveness is the ability to achieve success on markets which then leads to a highly productive\(^1\) economy and improved living standards for the overall population. Competitiveness is the result of numerous components or constituents that mutually interact, and the absence of some can prevent (limit) the positive impact of any or all on competitiveness. Acceptance of the concept of competitiveness is key to Croatia’s further development, because numerous studies have shown a strong link between competitiveness indicators and economic growth, and this in turn influences the attraction of foreign investment, alleviation of poverty and inequality, political stability and so forth. When speaking of a given economy’s competitiveness, the importance of labor force competitiveness is the focus of particular attention\(^2\). The most important factors in labor force competitiveness are the educational structure, and compatibility of labor supply and demand in the sense of knowledge, expertise, ability and labor costs.

After brief introductory remarks, this study shall provide a theoretical framework for the determinants of labor force competitiveness in its second section. The third section shall present the essential features of the situation in Croatia: the educational structure, the educational system and current knowledge and expertise, the institutional environment, labor force costs, and the question of competitiveness and Croatia’s accession to the European Union. These major themes shall be brought together in the conclusion.

2. Theoretical Framework

2.1 Components of Labor Force Competitiveness

Economic theory has long emphasized the importance of research and development, employee expertise and knowledge, and social capital\(^3\) as vital and essential prerequisites for competitiveness and economic growth (Aghion and Howitt, 1998), although their respective meanings vary in the world’s developed countries (technology leaders) and less developed

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\(^1\) Productivity is almost certainly both a component and result of competitiveness (it enables success on markets), and in the sense of strengthening (other segments of) competitiveness (which regardless of productivity can improve success on markets), it has a positive return impact on productivity.

\(^2\) Here we refer to the labor force in the broader sense of a human resource, i.e. the employed and unemployed and inactive persons who can potentially be activated and employed.

\(^3\) The totality of knowledge in society which is greater than the simple sum of individual knowledge, and the set of cultural features, dominant social values, common customs, overriding norms and generally-accepted preconceptions which create and maintain trust and cooperation within a community.
countries. The principal features that characterize the leaders are intense concentration on research and development and stable trends in GDP growth. Investment in research and development (R&D) and education can certainly help (even an undeveloped) country to move up the “development ladder” and make the transition from producing simpler to more complex products. A better educated labor force finds it easier to embrace foreign technology and rapidly develop its own. Empirical research has proven these statements. Barro and Sala-i-Martin (1995) have shown that level of education of the labor force (measured by years of schooling), as well as public sector allocations for education, exhibit a high correlation to the growth in real per capita income. Benhabib and Spiegel (1994) have established that the degree of education influences economic growth primarily through technological innovations, as well as through the speed of the assumption and spread of new technologies. To be sure, numerous studies have shown that the impact of education and research and development is scant at low developmental levels, and that after a certain level of development is achieved the average number of years of education completed by the employed and the investments in research and development are positively linked to economic development (Meier and Rauch, 2000). Simultaneously, it seems that the role of research and development and labor force education could differ in large and small countries. While greater outlays for education and research and development may increase the rate of innovation in larger countries, in small countries such outlays serve to facilitate the transfer of technology from abroad (Bassanini et al, 2000).

Numerous empirical studies have been dedicated to consideration of the return on investment in education and in research and development at the level of individual companies or individual economic sectors. Studies have generally shown that the social benefits of the return on investment in education and research are considerably higher than private returns. The rates of return clearly show that education and R&D are important to overall economic growth, which provides one of the most crucial explanations for State support and financing of these activities. Decisions by individuals to undertake education, and by companies to conduct R&D, are based on actual or expected private returns on investment. A number of authors believe that this return is considerably lower than the total social return, therefore (without State action) leading to insufficient investment in education and R&D. In the interests of securing an optimum return on investment in R&D, education and scientific research developmental policies must discern between private return on investment from

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4 Education is meant in the broader mean: as all kinds of formal and informal forms of education and training.
investment with social benefits. Thus, attempts must be made to compare the private and social returns on investment in education and R&D.

It is relatively difficult to isolate only the significance of education and R&D in growth in production, competitiveness and economic growth, although normally this is done by assessing the elasticity of production with regard to available capital goods. Despite (many) difficulties involved in making measurements, there is a considerable number of well-grounded studies which unambiguously show that social rates of return on investment in education and R&D are considerably higher than private rates. Hall (1996) estimates that private rates of return from these investments are most often 10-15% (although it can grow to as much as 30% in individual activities and firms), while the social rates are greater by a factor of at least one fourth to one third.

One of the most important reasons why the social benefits from the return on investment in education and research and development are considerably higher than private returns is due to knowledge spillover from one firm to another. When something is discovered or invented, other producers or service providers can easily utilize (imitate) it. The general belief is that knowledge and innovations are a type of public good whose consumption is not limited solely to one consumer, and it is almost impossible or very difficult to exclude an individual and/or firm from consumption of such a good (Cullis and Jones, 1998). In fostering labor force competitiveness, the State’s role cannot simply be limited to financing education and R&D, rather it has to make information on the possibilities, benefits and need for education and on scientific achievements accessible, so that (at least partially) it can rectify the asymmetry of information⁶, the peril of moral hazards⁷ and unfavorable choices,⁸ all of which can have a negative impact on labor force competitiveness and the economy as a whole.

Educational institutions and the education level of a population not only influence the creation of human capital, but also the invigoration of socially beneficial capital and the minimization of dysfunctional forms of social capital. Education doubtlessly carries ancillary non-market effects (for example, easier access to information, greater care for personal health, more active participation in social life which encourages responsible democratic civic

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⁶ Some participants have better information than others, while individuals or groups may have no access at all.
⁷ Behavior by individuals (or companies) aware that others will bear the consequences of their ill-considered or flawed decisions.
⁸ A situation that emerges when individuals (or companies) purchase certain forms of insurance from which they will most likely derive benefits.
behavior, election of democratic authorities and actualization of the rule of law). Barro (1998) used econometric methods to verify the accuracy of Lipset’s views, whereby higher educational levels among a population and growth of the middle class are key factors for acceptance of democratic, tolerant political behavior, which facilitates political stability, an essential prerequisite for overall socio-economic development and competitiveness. Such behavior must emerge at a certain higher economic level in society, because under conditions of economic underdevelopment, a newly-formed democracy—which is sometimes imposed by a former colonial authority or the international community—will not last very long.

As a whole, numerous studies (World Economic Forum, 1997; Porter, 1990) confirm that economic competitiveness and GDP growth are influenced:

- positively by an increase in the share of persons over 25 years of age who have completed secondary, college and higher education,
- negatively by increased public spending: a larger volume non-productive public spending—and the associated higher taxes—means an unfavorable environment for growth,
- positively by the index of the rule of law (quality of governmental administration, political corruption, probability that the government will not respect contractual agreements, risk of government expropriation and general respect for the rule of law).

The better education of the general populace and the labor force and lower public spending improve a country’s attractiveness to foreign investors (Sachs, Zinnes and Eilat, 1999), which facilitates the acceptance and development of modern technological and organizational solutions, paves the way for the rule of law and limits the extent of the informal (gray) economy (Semjen and Toth, 2002), increases demands for education and in turn spurs the competitiveness of the economy.

At different levels of economic development, the significance of certain levels of education in the creation of competitiveness changes. For developed industrial countries, Agiomirgianakis (et al.) (2002) have indubitably shown that there is a close positive link between education and economic growth, with higher levels of education having a greater impact on economic growth. The importance of tertiary education is especially great, as it directly influences the productivity and competitiveness of a national economy and the improvement of general living standards (World Bank, 2002a). Tondl and Vuksic (2003) have determined that for the larger group of transition countries in Central and Eastern Europe (CEE), the higher share of secondary school education does not play a significant role in
competitive ability and economic development, while higher education considerably eases the acceptance and spread of modern technology.

Under conditions of the increasingly greater need for accountability of economic entities to their sources of financing (i.e. the public), the perception that competition on global markets is based on knowledge and the need to solve the problem of unemployment are leading to a growing need to place knowledge at the disposal of economic entities. This trend is reflected in several ways: attempts to reduce the duration of study, increasing emphasis placed on the technical expertise of students, and stressing the importance of lifelong learning and/or the demand that employees undergo additional training. Due to their rigidity and inertia, traditional educational institutions (especially higher) resist such attempts (Polšek, 2004).

Education is certainly essential in the creation of the necessary competitiveness of an economy and society as a whole. It helps a country move up “the ladder of development” and prompts its transition from producing simpler products to more complex items. A more educated labor force finds it easier to adopt foreign technology and to more rapidly develop its own. Another vital aspect in all of this is the acceptance of the rule of law.

2.2 Are There Limits?

The value of formal education in and of itself should not be uncritically overestimated. Most researchers agree that human capital is an essential component of competitiveness and economic development (return on investment in education is greater than that of any other investment), but this is no guarantee of development because countries with the finest human capital do not necessarily achieve the best developmental results.

The links between education, competitiveness and economic development is not entirely clear, and what exactly constitutes a well- and successfully-educated labor force is even less so. Under conditions of rapid technological development and commerce based increasingly more on conceptual rather than on material production, academic diplomas and degrees are no longer a guarantee of economic success to either individuals or society as a whole.

In transition countries it is particularly true that the existing educational level of the employed and the population as a whole is no guarantee of competitive ability and economic growth. There are a number of reasons why, and here an attempt shall be made to consider
several of them. The labor force can easily be insufficiently or inappropriately educated\(^9\), i.e. the (formally educated\(^{10}\)) employed do not have the know-how necessary for successful market competition. Furthermore, the existing systems, with regard to educational results, are expensive and ineffectual, but there are no simple formulas to improve them. The most important aspects of a successful educational system are smaller numbers of pupils per classroom, better paid and more professional instructors at all levels, and more years of mandatory education.

Here expertise is not sufficient: employees today have to be capable of creating, analyzing and transforming information, communicating effectively, and organizing and coordinating business activities. Developed communication skills, computer knowledge, and the ability and willingness to engage in further education and training are all sought-after qualities (Miyamoto, 2003). We can estimate with relative certainty that educational programs in the transition countries of Central and Eastern Europe (particularly those based on the Austro-German model) are more oriented toward the rote memorization of course materials than on independent analytical/critical thinking and deduction and the innovative approach, which is certainly a hindering factor in other approaches to education and future work. Today the emphasis is placed on analytical abilities: seeking and selecting information, clarifying problems, formulating assumptions, confirming and assessing evidence and finding solutions. Globalization has emphasized the importance of knowledge and the aforementioned qualities in employees, which become crucial features of the creation (or not) of competitive abilities in economic and free market competition.

Competitiveness and sustainable development\(^{11}\) in an economy depend on three factors: available natural capital\(^{12}\), production capital and human capital (an educated and

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\(^{9}\) According to numerous OECD and World Bank sources, in many South American countries there is a great number and high share of lawyers and literature and philosophy professors among their educated population, while in the Scandinavian countries there are many persons studying electronics, IT, management, etc. (Blomström and Meller, 1991). This is not to negate the importance of the first group of the highly-educated, but the second group is nonetheless vital to economic development. Although there are no comprehensive and uniform solutions that suit all needs, the structure of pupils and students should correspond as much as possible to the existing, and especially future, desired structure of the national economy. Simply put, if a country has a well-developed telecommunications hardware industry-like Finland with Nokia-then it is desirable to have as many electrical engineers and similar occupations among the students and graduates. If the economy is largely oriented toward tourism and providing services, or preserving historical and cultural treasures-such as Greece-then the emphasis should be on educating tourism managers, art historians, restauranteurs, etc.

\(^{10}\) The concept of human capital is broader than just the formal education of a population and its employees, because it should encompass all knowledge and skills acquired informally and, under the broadest definition, investments in health. The level of human capital need not be the same as the average level of formal education.

\(^{11}\) Sustainable development is that in which future generations get equal or greater capital per person that today’s population (Serageldin, 1996).

\(^{12}\) Little positive impact can be made on natural resources because they are a given (constant), so with the exception of almost revolutionary technological changes-such as the discovery of new methods to utilize energy
professional population and employed persons). The comparative advantage of individual peoples is determined less and less by natural wealth or cheap labor, and more and more by technical/technological innovations and competitive use of knowledge or a combination thereof. Porter (1990:628) clearly recalls that education and training are the most important individual lever of the State at all levels of governance for the long-term improvement of the economy and the welfare of its citizens.

Even a well- and adequately-educated labor force can, for a number of reasons, remain unutilized or underutilized (World Bank, 2002a), which has a direct impact on economic competitiveness. There are a number of reasons for this, but most often it involves the unsatisfactory level of social capital and the non-existence of public confidence (Fukuyama, 1995), caused by the high costs of transition (North, 1990). The importance of culture, specific social values, institutions, and customs (traditions) to economic growth, competitiveness and political development is almost no longer even questioned. According to social capital theorists (Coleman, 1990; Putnam, 1993; Torsvik, 2000; Fukuyama, 2000), its characteristics are mutual trust, generally-accepted norms for cooperation and social networking, and ties between members of a community. In his well-known study on Italy’s development, Putnam (1993) states that the totality of these characteristics-social capital-is the driver of economic growth and political stability.

Furthermore, even the best educated and professional labor force will not be sufficiently competitive under conditions of unsatisfactory levels of innovativeness and entrepreneurship in society, non-existence of the rule of law, extensive and deeply-rooted and so forth—they cannot greatly influence the acceleration of economic development and improvement of competitiveness. Natural resources can only be depleted, exploited or left unused.

13 A successful, competitive and well-organized society is often characterized by a high level of trust in people and those exercising governmental authority, and honesty and accountability in the public sphere. Trust in people is crucial to the creation of ties between various social groups. Trust in the State is crucial to political stability and observance of laws.

14 Transaction costs are necessary in the conveyance of property rights from one economic agent to another. They include production costs, conversion costs (meaning detection of the possibility of conversion, the necessary negotiations, oversight and implementation) and the costs of preserving and protecting the institutional system (courts, police, armed forces). North (1997) defines transaction costs “as the costs of measuring and implementing agreements.” In modern economies increasingly emphasis is placed on transactions costs, so that they are becoming equal in importance to, and sometimes even surpass, production costs.

15 Entrepreneurship is tied to concepts such as taking risks, mobility, creativity and competitiveness. Entrepreneurship is not necessarily limited to a specific age or educational level. Even so, while an individual can be an entrepreneur at birth, it is nonetheless necessary to create an entrepreneurial climate in which such skills are encouraged and nurtured.

16 Rothstein (2001) very nicely explained the narrow connection between the rule of law, institutions, corruption and faith in others. In civilized society, institutions of law and order play a very important role: to detect and punish traitors, those who violate agreements, steal, kill and commit similar acts that harm society, which makes it impossible to trust them. So if you think that certain institutions are doing what they are supposed to in a just
corruption\textsuperscript{17} (Rose-Ackerman, 1999) and/or an omnipresent informal economy\textsuperscript{18}. Additionally, a disproportionately expensive labor force (given overall salaries and contributions) in relation to actual productivity is certainly not competitive\textsuperscript{19}. Comparisons of labor costs between various countries are not always simple, because statistics are often gathered on the basis of gross wages, which actually represent a fictitious category, somewhere between wages received by workers and total costs borne by employers. If net salaries and buying power are to be compared, the problems increase due to the differences in price levels among countries.

Finally, the achievement of a competitive economy and economic growth is hindered by a government that is either inefficient or prone to spending, or an unprofessional and unskilled public administration. Thus, the formation and reinforcement of professional institutions of public authority and a non-governmental sector (IMF, 2003) are equally important to the improvement of labor force competitiveness and the creation of economic growth. In overcoming all of the aforementioned obstacles, an important positive role can be played by pressure from international organizations or external anchors, such as EU

\textsuperscript{17} Corruption threatens public revenues and disrupts existing trust or prevents it altogether. Corrupt practices redirect the funds of all citizens into the hands a narrow, select elite, from the poor majority to the wealthy. A shortage of money impinges upon the quality of or prevents the rendering of public services. A government prone to corruption will not select the top bidder, nor will it permit the advancement of capable and professional public officials. It will instead spend public funds at its own whims to suit its own needs and reduce the salaries of public officials, who will in turn orient their efforts to extorting corruption from the citizens they serve. Stated concisely, corruption leads to (or enhances) governmental inefficiency and hinders or blocks economic growth and competitiveness.

\textsuperscript{18} The shadow economy does not provide proper jobs in which human capital may be developed thanks to an employer-employee relationship where the employer has an incentive to help develop the skills of his employees. In the shadow economy, employer-employee relationships are short term and are not governed by legal guarantees that would be conducive to human capital investment. The general lack of a proper legal environment also discourages female participation in the labour force. Analogous factors on the side of capital, i.e. absence of rule of law, meaning poor enforcement of property rights, create disincentives to investment, which in turn may hit growth and competitiveness as well. Sachs, Zinnes and Eilat (1999) stress the importance of having the smallest possible informal economy to the creation of a competitive economy and labor force, and when computing competitiveness indicators they use the informal economy indicator and give it a relatively high weight (0.4) in the calculation of political determinants of competitiveness (monetary policy has a weight of 0.2; while stability has a weight of 0.4).

\textsuperscript{19} The global economy is largely very mobile and the labor force is increasingly subject to international economic competition, so it has acquired the features of a good on the market. If an investor is able to invest in a given country, his/her decision will greatly depend on production costs. Labor is a production cost, but this does not mean that countries with the cheapest labor will attract the most investment, because investors pay much more attention to the business climate, the rule of law and efficiency of the courts, political stability, absence of corruption, administrative barriers and so forth. All of these are factors that must be considered when studying the competitiveness of an economy and its labor force. Although labor costs are without question important, they cannot be seen as an exclusive aspect or a limiting factor in determining competitiveness.
requirements based on the *acquis communautaire* to develop expert and effectual governmental and public institutions (Berglöf and Roland, 1997).

In short, the educational structure of a population and employees in line with economic needs is an essential component of competitiveness and economic development, but there are also many other factors that can greatly blunt competitiveness, such as insufficient social capital, a social climate not conducive to free enterprise, lawlessness and an ineffectual government or governing institutions. The following section provides a brief overview and assessment of individual components in Croatia.

3. Croatia

3.1 Educational Structure

The educational and qualification level of the general populace and the employed are important determinants of labor force competitiveness, as well as employability, and alleviating poverty and social exclusion. Over a relatively short period, the labor force structure based on degree of (formally) acquired educational qualifications improved considerably (naturally, the *actual* quality of individual educational programs and study courses is not being considered here). The share of unqualified employees declined significantly, while the share of qualified employees-especially those with high and very high qualifications-grew. This results in increased participation in education at all levels, and in the *decimation*-a reflection of the growth in demand for an educated labor force-of jobs for people with lower educational qualifications, which is why these persons have become discouraged and simply left the labor force (Table 1).

While in 1981 almost one fifth of the employed had not even completed elementary school, in 2001 this only accounted for 5% of all employed persons. The share of the employed who had completed secondary school, which was less than 50% of all employed at the beginning of the 1980s, accounted for almost three fifths of the employed in 2001. Growth in the number of persons with college and university qualifications was particularly high, as it grew by a factor of one half (from 12% in 1981 to 18% in 2001).
Table 1. Structure of the labor force based on level of educational qualifications (in %)

<table>
<thead>
<tr>
<th></th>
<th>Employed</th>
<th>Unemployed</th>
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<tbody>
<tr>
<td></td>
<td>1981&lt;sup&gt;a&lt;/sup&gt;</td>
<td>1986&lt;sup&gt;b&lt;/sup&gt;</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Incomplete elementary school</td>
<td>19</td>
<td>17</td>
</tr>
<tr>
<td>Elementary school</td>
<td>21</td>
<td>20</td>
</tr>
<tr>
<td>Secondary school&lt;sup&gt;e&lt;/sup&gt;</td>
<td>48</td>
<td>49</td>
</tr>
<tr>
<td>College</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>University faculties and arts academies</td>
<td>7</td>
<td>8</td>
</tr>
</tbody>
</table>

For 1981 and 1986 only workers in the public sector were cited, while 1996 and 2001 includes persons employed in legal persons and degree of educational qualifications, and the unemployed, with status as of the second half of the year.

Sources: a) Republic Self-managed Interest Community for Directed Education (1985); b) Republic Statistics Department of Croatia (1988); c) National Statistics Bureau (2001:128); d) National Statistics Bureau (2002:146); e) In the interests of making comparisons by individual years for 1986, the first and second stages of directed education encompass elementary school, while the third, fourth and fifth encompass secondary school. In all years, schools producing skilled and highly-skilled workers and other secondary schools are encompassed in the secondary school level.

Based on previous developments, the further schooling of the general public and the employed, the demonstrated need of economic entities for workers<sup>20</sup> (reported available jobs) and the educational structure of the employed in developed countries, one can expect the further reduction in the share of the employed who have not completed elementary school, stagnation in the number of the employed with college-level education, a slight growth in the employed with completed higher education, and considerable growth in the share of persons with completed secondary school qualifications in the employed category.

Despite the aforementioned formally acquired educational qualifications, Croatia still seriously lags behind the EU member states and some of the Central and Eastern European

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<sup>20</sup> According to data from employment bureaus, in the reported need for workers in 2001, approximately 4% referred to college, 15% to higher (university) qualifications (including trainees) (National Statistics Bureau, 2002:169), while their share in overall employment was simultaneously quite lower.
transition countries. The percentage of highly-educated persons in Croatia (12%) is still below the European average (20%), and the same can be said of the effectiveness of schooling and university-level study. Adult education, which is practically the most dynamic sector of lifelong learning throughout the world, is the most neglected area of Croatia’s educational system. There is a small number of participants in on-the-job education and training, and relatively meager funds are allocated for this purpose.

3.2 Educational System and Existing Knowledge

A major problem of elementary and secondary education is insufficient differentiation. The curricula for higher elementary grades are formulated to continue on into secondary school (gymnasium), and not for continuation of schooling in vocational or trade schools (even though only one fourth of all elementary school pupils go on to study in the gymnasiums). A considerable number of youths in Croatia drop out of secondary and higher educational institutions. According to a rough estimate, approximately 1.5% of enrolled pupils do not complete secondary school (this percentage is considerably lower for the gymnasiums, and palpably higher in three-year trade schools). Systematic work with gifted and talented pupils is also lacking, even though this could be done without moving such pupils into separate classes. It will be necessary to conduct systematic evaluations of the educational system’s results and make comparisons between Croatia and other countries in the region and countries about to join the EU, and launch plans for admittance to PISA and IALS programs\textsuperscript{21}.

The average duration of college/university study is approximately 7 years, while at colleges (with two-year course programs) it is 5 years on average. According to estimates, only one in three students complete their studies, while a large number discontinue them. The number of students who go on to earn degrees in relation to the number of students enrolled in the first year (with a 5-year shift) is only 39%, which shows a low success rate for this type of study. This is, inter alia, caused by the perilous lack of second-chance schools, intended for youths who dropped out of regular education or are in danger of doing so, or hit by structural changes in secondary and higher education. The high drop-out rate leads to higher costs per participant in educational programs.

\textsuperscript{21} Two occasional OECD research studies: PISA (\textit{Program for International Student Assessment}) and IALS (\textit{International Adult Literacy Survey}). See: www.pisa.oecd.org
The educational system must therefore be made more flexible, so it becomes a system that would be navigable, thus avoiding “dead-ends” and lower the early drop-out rate, increase the internal differentiation of pupils, reinforce informal methods of acquiring knowledge and skills and improve knowledge of foreign languages. The systematic analysis, disencumbrance, and modernization of educational curricula and programs are essential (details can be found in the contribution to this publication by Lowther, 2004).

In securing the competitiveness of the labor force, tertiary education is particularly important. The number of those enrolled in tertiary education increased from 18% of the relevant age-cohort in 1985 to 31% in 1998, which is still considerably lower than in other EU member states (Denmark 55%, Greece 50%, Italy 47%, Germany 46%) and individual transition countries in Central and Eastern Europe (Bulgaria 43%, Slovenia 36%). Certainly, most transition countries have lower shares of the number enrolled in tertiary education in the population of the relevant age cohort (Czech Republic and Slovakia 26% each, Poland 25%, Hungary 24%) (World Bank, 2002a).

Although the number of persons who graduated over the last decade increased from 8,000 to almost 14,000 (and the total number of students also grew considerably – from 69,000 to 108,000), the number of graduates has actually stagnated over the last five years to a relatively low level of 23% of the population of the appropriate age. The highest growth in graduates was recorded in the social sciences and liberal arts, and their share in the total number of graduates increased to almost 57%. The share of the natural sciences also grew, but at a very low level of under 3% of the total number of graduates. The greatest decline was in the share of graduates in the biotechnology sciences, followed, to a somewhat lesser degree, by the medical and technical sciences, where the share in the number of graduates fell below 30%. In Croatia in 1997, there was a relatively low share of students majoring in the natural and technical sciences in the total number of students (30%), which is significantly worse than Germany (47%), Turkey (45%), Slovakia (40%) and Slovenia (38%), and only a little better than the Czech Republic (28%), Bulgaria (26%) and Romania (21%). It will therefore be necessary to raise the enrollment quotas for specific majors in the natural and technical sciences, and increase the efficiency of natural science studies so that the largest possible number of students complete their studies.

Croatia in the 1990s was apparently hit by stagnation in the development of its education, both formal and at the workplace. Mihaljek (2000) states that the rates for secondary and higher school attendance declined, while the problems caused by inadequate knowledge and skills required by new technologies were exacerbated and many qualified
individuals in the fields of science and education left the country. In the interests of raising labor force competitiveness and innovation as the principal motors of the economy, it is absolutely essential to educate employees, managers and current and future entrepreneurs on an ongoing basis. Lifelong education and on-the-job training are very underdeveloped in Croatia, while in developed economies study parallel with work and on-the-job learning contribute to the creation of between a third and a half of all work skills.

As already noted, the high percentage of highly-educated persons is not directly and/or unambiguously linked to competitive performance. Croatia has more highly-educated persons among its employed and overall population than Austria and the most successful transition countries. One can say with relative assurance that the highly educated in Croatia have largely completed studies at university departments and academies which are not directly catered to the needs of a modern economy, and they often do not possess the vital and required knowledge and skill-sets for sought-after occupations. The situation is particularly unpropitious in the social sciences, which were long an extension of politics-meaning they were ideologically tainted, autarkic\(^{22}\) and closed\(^{23}\), lacking systematic cooperation with foreign researchers and universities, and they have thus not developed in line with contemporary scholarship elsewhere. There is a serious shortage of macroeconomists, financial analysts, organizers and commodities and securities exchange operators, educated managers and entrepreneurs, international commodity and financial market experts, public administration experts, and lawyers specializing in labor and welfare law, the tax system, international law, etc. It is absolutely essential to systematically insist on the formation and development of educational programs that would train, qualify and hone the expertise of the necessary experts.

In the natural and technical sciences, Croatia is not that far behind. The country has achieved notable results, but further systematic work must be done to accelerate the development of knowledge and expertise in important new branches such molecular biology and biotechnology, microelectronics, IT systems, robotics, and environmental research.

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\(^{22}\) We refer here to unique phenomena such as arranged economies, organizations of associated labor and so forth. Many ideologists and proponents of such theories are still active in political and social life today, and in the educational system.

\(^{23}\) Vehovec (2004) recalls that after gaining independence Croatia was long outside of the main European financial spheres of support to scholarly cooperation, and such cooperation was only underwritten to a lesser degree by foreign associations and agencies. This was particularly felt in the stagnation of economics as a field of study, and the objective reason for this stagnation was the political isolationism that kept the country from being formally included in avenues for financing international scientific research projects and for various student and professor exchange programs that would have engendered the acquisition of experience. Due to the absence of formal and systematic incentives, researchers who more boldly engaged in international cooperation were armed with only their own motivations and expectations of the benefits they would derive from such exchanges.
Training and research in these fields requires a multidisciplinary approach and cooperation between fields that were earlier believed to be separate and far apart. It is therefore important to overcome the barriers all too often placed between scientists in different fields and foster trust and mutual cooperation.

Advancement of the educational and civilizational level of the population is an indispensable condition for competitiveness, but a complicated question arises here: How can the personal and social benefits of education be assessed? Education—especially higher education—is largely a credence good. This means that its value is often difficult to quantify, even after it is consumed (the acquired knowledge is utilized). The basic problem is the impossibility of assessing the value of individual schools or universities by future pupils and students, which could reflect unfavorably on good educational institutions. In reality, students normally choose a school and university only once or twice in their lives (in cases of change), even as the educational experiences of former participants differ from each other greatly, as do their recommendations for future students. In a small country like Croatia, it is particularly difficult to create the necessary competition in providing educational services, and signalize the quality of individual schools, colleges and universities. This therefore requires the consistent and objective monitoring, assessment and publication of educational results of individual schools and universities, which in turn should be the most important determinant of future financing. These signals should encourage competition among educational institutions in attracting the best and most perspective pupils and students.

In a word, it is relatively certain that the labor force in Croatia is (probably) not sufficiently qualified or perhaps inappropriately qualified for the needs of a modern market economy. Efforts must be invested in educational and job-training programs, systematic coordination of education so that it complies with the needs of the market and encouragement of lifelong education. Investment in human capital is certainly desirable, but it probably will not produce results over the short term. Furthermore, attention should be directed to persons 25 years of age and younger. An educated labor force is not, in and of itself, a sufficient developmental resource if it is not utilized to apply new technologies. In order to achieve this, technical know-how and management skills are needed throughout society. Improving the institutional environment and social capital is equally important.
3.3 Institutional Environment, Social Capital and Labor Force Competitiveness

Institutional (un)development and/or unnecessary complexity will not be covered here in great detail\(^2\), because that would diverge too far from the topic of labor force competitiveness. Even so, in the most concise terms it should be noted that Croatia as a whole has rather weak institutions. For example, the courts are frequently subjected to pressure from the executive authorities, burdened with numerous unsettled cases, judges lack sufficient experience, and the public has a very negative view of the professional and moral qualifications of judges (Uzelac, 2001). The International Monetary Fund (IMF, 2003) has conducted detailed research into the influence of institutions and macroeconomic policy on growth in per capita income, economic growth, and the volatility of growth—which are all essential components of competitiveness, although the level of labor force and economic competitiveness in turn influence these components.

Cornelius, Blanke and Paua (2003) clearly confirmed the links between growth and competitiveness by measuring average annual real GDP growth for 53 countries during the 1997-2001 period and competitiveness indicators. Their unequivocal conclusion-despite short-term changes or economic shocks—is that countries that achieve greater GDP growth rates also have higher competitiveness indicators. They are aware of all methodological problems associated with making such measurements, especially for transition countries in which the structure of change is mostly linked to the privatization of large state-owned companies and the discontinuation of subsidies to economic entities. These authors computed a summary growth competitiveness index for 80 countries. Topping the list is the United States, followed by Finland, Taiwan, Singapore and Sweden. Zimbabwe and Haiti have the lowest competitiveness indicators. Croatia was included for the first time and received a ranking of 58. Among the other transition countries, Estonia (26), Slovenia (28) and Hungary (29) were ranked considerably higher. Out of the remaining transition countries, Bulgaria (62), Russia (64), Romania (66) and Ukraine (77) ranked lower than Croatia. The growth competitiveness index is the average of three indicators: technological development, public institutions and the macroeconomic environment, computed with the help of several

\(^2\) It has already become somewhat tiresome to constantly repeat the problems associated with overly complicated and extensive bureaucratic procedures, especially those tied to obtaining entry and labor visas and work permits, and the difficulties involved in purchasing land or registering a firm. Interested readers can find much about this in the well-known report by the Foreign Investment Advisory Service (FIAS): Croatia: Administrative Barriers to Foreign Investment [http://www.mingo.hr/Aplikacije/Fias/Source/FIAS_hr.pdf].
subordinate indicators (explanations and computation methods are contained in the appendix to their article). Out of the 80 countries, Croatia ranked 42nd in technological development, 57th in public institutions and 70th, its lowest ranking, in macroeconomic environment. It received a particularly low ranking (77) due to high public spending, while it received visibly higher rankings for macroeconomic stability (41) and its credit rating (49). A subordinate indicator for the public institutions indicator encompasses observance of laws and contracts (Croatia received a ranking of 60) and extent of corruption (Croatia received a ranking of 45). A significant improvement in individual aspects—such as reduction of public spending—can even bring about a noticeable change in the country’s position in the short term. In this manner, India jumped from 33rd in 2001 to 9th in 2002 based on the public consumption indicator.

Several research studies have indicated weak institutions and a visibly lower level of social capital in almost all transition countries (Grootaert and van Bastelaer, 2002; Troiani, 2003). These countries often uncritically and directly apply specific models from successful Western, formal market institutions (laws, regulations) onto a different transition socio-economic system, which not only fails to produce the desired success, but also leads to extensive transitional anomie as a result of crumbling basic informal institutions. Institutions are an important segment of socio-cultural capital resources and can serve as a stimulus, but also as obstacles to successful economic transformation and development. The interaction and interdependence between formal and informal institutions are exceptionally important to the successful development of free enterprise and overall transition, and the creation of labor force and economic competitiveness. This is why the implementation of reforms in Croatia will require a realistic assessment of their overall potential-possibilities and weaknesses as the decisive resource for this change.

The level of trust is also an indicator of institutional development. Croatia has a considerably low level of mutual trust among its overall population. According to research conducted by Rimac and Štulhofer (2004), generalized trust25 in Croatia is two times lower than the EU average. Furthermore, in terms of trust in the country’s political institutions,26 Croatia stands roughly at the average of countries about to join the EU, but it lies far below the average of member states. An almost crucial issue in behavior and the decision to comply with or violate the law and obligations is the question of justice and validity of social norms,

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25 Generalized trust is obtained with the help of the question: “In general, would you say that most people can be trusted, or does a person have to be cautious in relations with others?”

26
so that confidence in existing norms is an important indicator of social trust. The more individuals personally perceive widespread violation of norms, the less likely such individuals are to have confidence in them. Trust in norms is highest in Germany, Denmark and Sweden, while in Croatia it is somewhere between average of EU member states and EU candidate countries. In earlier research, Rimac and Štulhofer (2002) found a relatively high level of opportunism, especially among the youth, so there is a real danger of long-term maintenance of the current state of affairs. This is why the consistent prevention of illegal behavior and corruption—particularly the limitation of the opportunity and need for its very emergence—is so necessary and important.

The unsatisfactory level of administrative/governance capacity, in the sense of long-term and highly standardized operations at all levels of governance, is often cited as an almost crucial aspect of the overall competitiveness of Croatia’s economy and labor force by many analysts (Johnson, Kaufmann and Zoido-Lobaton, 1998; Čengić, Dragojević, Vidaček 2003). The shortage of qualified officials and deficient organizational ability of administrative employees is frequently noted. Without doubt, the recent wartime events led to a considerable number of unqualified persons to fill the ranks of public officials—with the help of cronyism, nepotism and political party affiliation. Public administration has been plagued by negative selection and de-professionalization for many years now (the result of low salaries, an insufficiently transparent assessment system and inadequate rules of seniority with a view to advancement), which certainly plays a role in the large-scale departure of professionals and qualified employees from governmental/public bodies, as they can find employment outside of this sphere, while those who lack this opportunity remain. The unprofessional nature of public administration is all too often a result of the functional dependence of the overall administrative system on the political decisions of the executive authorities and the governing political élites.

26 The Church, military, the educational system, the press, trade unions, the police, Parliament, public services, the social security system, and the health-care and justice systems.

27 By accepting the following propositions: Evade taxes, if you’re able and Take bribes at work.

28 Greater and longer lasting non-observance of laws means destruction of the entire social fabric and undermining of achievements made over the long run. This is fertile ground for the emergence of corruption, which disrupts economic flows, creates its own “rules and laws,” accepts unlawful behavior as normal, creates new centers of power and dissolves any trust in existing institutions and authorities. Lack of respect for laws makes countries uninteresting to foreign investors, and it hinders or reorients economic growth, which in turn prompts shadow business. All of this prevents or at the very least retards the building of new institutions that are so necessary to achieving competitiveness, and overall economic and social development.

29 Corruption emerges as an overlapping of the public and private: a public official makes a discretionary decision on whether an individual will exercise a certain right. Laws must therefore be clear and durable, leaving the least possible room for discretionary action, while decisions must be made on the basis of clear criteria, and be transparent and accessible by the public. All of this is frequently not the case in Croatia.
Other essential components of labor force competitiveness are the (non-)existence of entrepreneurial ability and an entrepreneurial climate. According to research conducted by Singer et al (2003) Croatia lags considerably in this sense, and according to the index of Total Entrepreneurial Activity – TEA) it was ranked 32nd out of 37 countries studied. The sampling encompassed various groups of countries: developed ones like the United States, Germany and the Netherlands, developing countries like China, India and Brazil, and those in transition such as Hungary, Poland and Russia. For Croatia, the research identified two basic motives for entrepreneurial activity: knowledge of circumstances which could be commercialized by launching a business, and necessity, i.e. a lack of any other alternative. In terms of age, people between the ages of 25 and 34 are the most active in the creation of new companies, but people between the ages of 45 and 54 most often become entrepreneurs out of necessity. In terms of education, most entrepreneurial activity is conducted by respondents with secondary school qualifications, followed by those with college or higher educational qualifications, while the least educated account for the smallest share of entrepreneurs. In general, entrepreneurs in Croatia are three times more likely to be men than women, between the ages of 25 and 34, with secondary school qualifications and higher incomes. An entrepreneur is most often a person who recognizes other entrepreneurs, who recognizes business opportunities, possesses management skills and has no fear of business failures.

3.4 Labor Force Costs

An essential (although not exclusive) component of economic and labor force competitiveness on the international market is the total price of labor. It is important to recall that this segment acquires (relatively) more emphasis in labor-intensive industries, often with a low level of technology, which is way in modern economies the costs-meaning the price of labor-is not that crucial. Nonetheless, a cheap labor force is an important component of investment\textsuperscript{30} in Central and East European countries, while Croatian labor is relatively expensive. The total annual costs of labor in Croatia, calculated according to market exchange rates was US$9,500 in 2002. This is twice the amount in Slovakia, while the difference in relation to the Czech Republic, which came closest to Croatia, is approximately 13%. Based on these data one can conclude that labor in Croatia is more expensive than in other country that should accede to the EU in the first round of enlargement, with the exception of Slovenia.

\textsuperscript{30} According to the results of a survey from the World Investment Report (UNCTAD, 1998), cheap labor was one of the most important reasons for foreign direct investment in transition countries.
which was not included in this sampling because the relevant data were not available. In terms of buying power, net salaries in Croatia were 3% less than in the Czech Republic, but it otherwise far surpassed the other countries in the sampling by between 10 and 40 percent.

Table 2 – Labor costs and net salaries

<table>
<thead>
<tr>
<th></th>
<th>Total labor costs in current US$</th>
<th>Tax wedge (as a % of total labor costs)²</th>
<th>Price level (USA=100) in %</th>
<th>Net salaries, in US$ based on buying power parity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Czech Rep.</td>
<td>8,496</td>
<td>43</td>
<td>45,6</td>
<td>10,620</td>
</tr>
<tr>
<td>Hungary</td>
<td>5,409</td>
<td>46</td>
<td>45,3</td>
<td>6,444</td>
</tr>
<tr>
<td>Poland</td>
<td>7,496</td>
<td>43</td>
<td>46,1</td>
<td>9,273</td>
</tr>
<tr>
<td>Slovakia</td>
<td>4,671</td>
<td>42</td>
<td>35,3</td>
<td>7,684</td>
</tr>
<tr>
<td>Croatia¹</td>
<td>9,581</td>
<td>42</td>
<td>53,5</td>
<td>10,289</td>
</tr>
</tbody>
</table>

Source: OECD; National Statistics Bureau

¹ The price level in Croatia is taken from OECD research conducted in 1999.
² The tax wedge is the ratio between the total tax burden on labor, i.e. the total amount of taxes and contributions, and total labor costs.

The situation is particularly troubling if salaries and labor productivity are compared. Rutkowski (2003) states that salaries in Croatia are high in comparison to other (especially transition) countries and do not correspond to the difference in labor productivity. If per capita GDP³¹ is used as a crude measure of labor productivity, it follows that the differences in salaries in Croatia and other transition economies are greater than the differences in productivity (Table 3). For example, salaries in industrial production in Slovenia are approximately 60% higher than in Croatia, while productivity is almost twice as high, which implies that despite higher salaries, the unit cost of labor in Slovenia is lower. By the same token, while productivity in Hungary is at about the same level as in Croatia, Hungarian salaries are one third less on average.

Table 3. Monthly gross salaries in manufacturing, 2000

<table>
<thead>
<tr>
<th></th>
<th>Gross salaries</th>
<th>Compensations to workersa</th>
<th>Per capita GDP</th>
<th>Gross salaries</th>
<th>Per capita GDP</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>US$</td>
<td></td>
<td></td>
<td>Croatia = 100</td>
<td></td>
</tr>
<tr>
<td>Bulgaria</td>
<td>109</td>
<td>1,520</td>
<td>22</td>
<td>33</td>
<td></td>
</tr>
<tr>
<td>Croatia</td>
<td>494</td>
<td>577.9</td>
<td>4,620</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>341</td>
<td>503.5</td>
<td>5,250</td>
<td>69</td>
<td>114</td>
</tr>
<tr>
<td>Estonia</td>
<td>281</td>
<td>373.3</td>
<td>3,580</td>
<td>57</td>
<td>77</td>
</tr>
<tr>
<td>Greece</td>
<td>1,432</td>
<td>..</td>
<td>11,960</td>
<td>290</td>
<td>259</td>
</tr>
<tr>
<td>Hungary</td>
<td>312</td>
<td>449.7</td>
<td>4,710</td>
<td>63</td>
<td>102</td>
</tr>
</tbody>
</table>

³¹ We are aware that this measure is unreliable, since in Croatia, in comparison to other countries, employees account for a low share of the overall population (1/4). A better and genuine indicator of productivity would be GDP per worker or, better yet, GDP per worker in industry.
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Ireland</td>
<td>1,804</td>
<td>22,660</td>
<td>365</td>
<td>490</td>
</tr>
<tr>
<td>Latvia</td>
<td>225</td>
<td>2,920</td>
<td>46</td>
<td>63</td>
</tr>
<tr>
<td>Lithuania</td>
<td>247</td>
<td>2,930</td>
<td>50</td>
<td>63</td>
</tr>
<tr>
<td>Poland</td>
<td>457</td>
<td>605.3</td>
<td>92</td>
<td>91</td>
</tr>
<tr>
<td>Portugal</td>
<td>679</td>
<td>11,120</td>
<td>138</td>
<td>241</td>
</tr>
<tr>
<td>Romania</td>
<td>112</td>
<td>1,670</td>
<td>23</td>
<td>36</td>
</tr>
<tr>
<td>Slovakia</td>
<td>255</td>
<td>3,700</td>
<td>52</td>
<td>80</td>
</tr>
<tr>
<td>Slovenia</td>
<td>793</td>
<td>10,050</td>
<td>160</td>
<td>218</td>
</tr>
<tr>
<td>Spain</td>
<td>1,461</td>
<td>15,080</td>
<td>296</td>
<td>326</td>
</tr>
</tbody>
</table>

.. = No data

a) Gross salaries plus contributions on top of salaries


Nestić (1998) recalls that the high fiscal burdens in Croatia (particularly contributions for retirement and health insurance) seriously threaten the external competitiveness of the economy, while in and of themselves having a negative impact on the functioning of the labor market. The high share of taxes and contributions in labor costs have a detrimental impact on the interest of employers in hiring new employees, (probably) spurs the impulse to lay off redundant workers, encourages employment in the informal sector of the economy, and reduces domestic (private) savings and investment. This also has unfavorable long-term effects on economic growth, the creation of new employment, and the acceleration of competitiveness. A positive development is that contributions have declined over the last several years, even though this has not been accompanied by a reduction of public spending, so that the required funds are compensated from the central budget and they lead to larger fiscal deficits and public debt. Croatia still has a large share of its budget and public spending reflected in GDP, which creates a large fiscal burden and certainly reduces the competitiveness of the labor force.

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32 The share of the informal economy in Croatia is declining, according to research conducted by the Public Finance Institute (2002) during the 1990-1995 period. The informal economy accounted for approximately 25% in this first period, and for approximately 10% of GDP on average during the 1996-2000 period. The results seem quite logical: war, hyperinflation, beginnings of transition and reforms during the first period, and stabilization and empowerment of the ethical and legal system in the second period.

33 The total rate of contributions in Croatia is 37.6. For the sake of comparison, the contribution rates in countries joining the EU range from 33% in Estonia to 50% in Slovakia. The average rate of contributions on salaries in the EU is 23.5%.

34 According to Finance Ministry data, total public spending measured by expenditures of the consolidated general government for 2002 was a very high 49.8% of GDP, while in the same year the share of the consolidated central government was 45.7% of GDP. This nonetheless represents a reduction of consolidated central government outlays from 49.7% of GDP in 1999, 48.8% in 2000, and 46.0% in 2001.
3.5. Competitiveness and EU Accession

As noted previously, external pressure can also help economic development and speed up competitiveness. Here whether or not Croatia is able to secure stable and sustainable economic growth is perhaps the most important factor. Nothing brings a country closer to the EU than several years of intense and sustainable economic growth. The EU is based on interest, and interest in a country grows if it is progressive and competitive. Based on several indicators, Croatia has sustainable economic growth, and it has relatively favorable perspectives for long-term economic growth (5%). The inflation rate is low (2-3%), interest rates are coordinated, the currency’s value is stable, a good portion of the banking system has been stabilized, and despite all of the changes it still has a sound tax system that generally complies with EU standards. Unfortunately, in light of EU accession, these positive aspects are outweighed by its shortcomings: a low private sector share (60%, compared to 80% in candidate countries), high budget deficit (7%\textsuperscript{35} of GDP in Croatia, compared to the 3% of GDP stipulated by Maastricht criteria) and a high public debt (although still lower\textsuperscript{36} than the 60% of GDP stipulated by Maastricht criteria). Furthermore, Mihaljek (2003) warns that there are obvious shortfalls in certain vital microeconomic segments, such as the securities market and market competition policy. Finally, there is a relatively high degree of dependence on State assistance, as State aid in Croatia in 2001 totaled 5.25% of GDP, while in the EU it was 1.01% of GDP (Kesner-Škreb, Pleše i Mikić, 2003).

We can briefly reiterate that as whole, based on several indicators, Croatia is characterized by an absent or deficient competitive edge in both its economy and labor force. The relatively low share of the private sector, high level of State involvement which leads to a high budget deficit, a high public debt and the burden of taxes and contributions have led to the emergence of a ‘vicious cycle’: public spending is always catching up to expenditures, expenditures keep on growing, and so public spending must again catch up with expenditures.

\textsuperscript{35} It is difficult to make a definitive conclusion about the budget deficit. According to the Responses to the European Commission Questionnaire (MEI, 2003 – http://www.mei.hr/EUodgovori/pog11.pdf) the deficit of the consolidated general government in 2003 was a little over 4%, while Finance Minister Ivan Šuker has stated that the national budget deficit is 6.86% of GDP. John Norregaard, the permanent representative of the International Monetary Fund (IMF) mission in Croatia, says that the budget deficit is 4.5% of GDP (27 Jan, 2004, Banka). By way of comparison, the budget deficit in the Czech Republic was 6-7% of GDP in 2002, while in Hungary it was 7-8% of GDP (Mihaljek, 2003).

\textsuperscript{36} According to Finance Ministry data, at the end of the first six months of 2003, public debt in Croatia together with guarantees was 50.4% of GDP, while without them it was 41.3% of GDP. According to the Responses to the European Commission Questionnaire, public debt at the end of the first six months of 2003 was 50.8% of GDP, while forecasts for 2004 and the subsequent years show that it will not exceed the boundary of 52% of GDP, which is approximately 10% less than the average public debt in EU member states (62.5%).
Conclusion

Developing human capital is necessary, but not sufficient to secure labor force competitiveness. Generating economic competitiveness requires qualified and capable citizens and employees, but this must be accompanied by the appropriate economic policies – primarily the development of strong and independent institutions, improvement of public administration, curtailment of corruption and the informal economy, and improvement of the free enterprise environment. This is no simple task that can be accomplished quickly, but rather a clear developmental guideline in which citizens will see improvement in these sectors and can, in a relatively short period, produce valuable results.

A country can achieve higher living standards and enhance competitiveness even without technological progress, through a higher rate of capital accumulation for example, but it will not be able to achieve permanent economic growth. Institutions are crucial to ensuring property rights, impartial (objective) settlement of legal disputes, effective and transparent public spending at all levels of government, as well as transparent political decision-making. Under conditions where there is no good governance, there will probably be ineffective allocations of available funds.

Education—especially tertiary—is essential for the effectual creation, dissemination and application of knowledge and for the development of technical and expert/professional capacity. The ability of a society to produce, select, adapt, commercialize and utilize existing knowledge are decisive in the creation of sustainable and lasting economic growth and improvement of living standards, public health, and the reduction of poverty and inequality. Although there is no simple nor uniform formula for improving the education, qualifications and competitiveness of the labor force, which can be copied or automatically transferred from other countries or places, it is nonetheless clear that a general prerequisite is an unwavering vision of long-term development of all-encompassing, diverse, mutually linked and well-articulated educational, employment and professional advancement systems. The ability to formulate, synthesize, analyze and deliberate can be developed in a broad range of educational programs and through various instructional approaches.

Although the autonomy of educational institutions, especially universities, must be upheld, it is also necessary to enhance their capabilities in management, accountability, reporting with reference to utilized funds, and improve their strategic planning capacity. Systematic measurement of the quality (assessment and monitoring) of educational and scientific research programs must be insisted upon. All interested parties should be involved
in deliberations on these matters so that a social consensus can be achieved. This is not a simple task, nor even a guarantee of success, but the absence of public involvement and decision-making behind closed doors are a guarantee of failure. The ongoing education of all participants in the reform of higher education and science, from decision-makers to the public, is absolutely essential to engendering an understanding of the significance of undertaken reforms.

The formal improvement of the educational structure of the employed and the general populace will not be enough, because raising competitiveness equally requires the development of trust, availability of information and effective government activity. A successful political and economic transition requires a sense of social solidarity (trust in other people is key component of social solidarity), just and dependable institutions, observance of laws, and above all political institutions that provide what citizens want the most: prosperity.

In general, when people consider the government corrupt and believe that the country is headed in the wrong direction, this obliterates social solidarity as expressed in trust in others, and reduces trust in the bodies and decisions of the authorities. In transition countries under conditions of relatively low social capital and mutual trust, accompanied by simultaneously arduous and long-term reforms, this can lead to an increased desire to halt reforms, reduce market competition and increase egalitarianism, all of which have explicitly negative effects on the competitiveness of the labor force and the economy.

The State has cut back its direct subsidies to individual branches of the economy or firms, but it still plays a large role in creating the business climate. Ensuring the rapid professionalization of public administration will be crucial-this entails improving the knowledge and expertise of employees and their knowledge of foreign languages, setting up a system of education for public officials and raising the level of accountability and standardization of procedures. The politicians and other professionals must be aware that a capable public administration is an important part of a country’s overall competitiveness.

Integration of Croatia into European markets will create powerful competitive pressures in the entrepreneurial sector. The process of adaptation that ensues may lead to a great redistribution of the labor force between and within sectors, as well as changes in the qualifications required for various occupations, from blue- and white-collar workers to persons engaged in other professions, and public officials and entrepreneurs. This will unavoidably require the loss of some types of jobs and the creation of new ones. The redirection or hampering of reforms can certainly threaten economic development and the creation of competitive labor force.
Securing labor force and economic competitiveness requires rapid and stable growth, maintaining a low inflation rate and external stability, continuing fiscal adaptation, reducing the deficit and debt levels, limiting subsidies and encouraging domestic savings. It is equally important to undertake public administration reforms, encourage the emergence and development of independent bodies and strengthen institutions. Approaching and eventually joining the EU will certainly help Croatia raise its competitiveness and create economic and social development, but expectations here are without doubt too high and unrealistic. Only the citizens of Croatia can jointly achieve competitiveness and economic development, establish efficient institutions and create a society which respects both laws and individual rights.

Creating and improving the Croatian labor force’s competitive edge is not a short term activity that can be achieved quickly, and requires more than just the strength and explosiveness of a 100 meter sprint. It is a long term process—which is more akin to a triathlon - so it requires persistence, decisiveness and diverse knowledge, expertise and skills in society as a whole.

LITERATURE


